

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES
			J	1 22
2. AMENDMENT/MODIFICATION NO. 0002	3. EFFECTIVE DATE 07-Jul-2004	4. REQUISITION/PURCHASE REQ. NO. W22W9K-4141-1391		5. PROJECT NO.(If applicable)
6. ISSUED BY U. S. ARMY ENGINEER DISTRICT, LOUISVILLE 600 DR. MARTIN LUTHER KING, JR. PLACE ROOM 821 LOUISVILLE KY 40202-2230	CODE W912QR	7. ADMINISTERED BY (If other than item 6) MILITARY/RESERVE TEAM 600 DR. M. L. KING, JR. PL., RM 821 ATTN: JENNIFER J. ANDERSON LOUISVILLE KY 40202-2230		CODE DACA27
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			X	9A. AMENDMENT OF SOLICITATION NO. W912QR-04-R-0028
			X	9B. DATED (SEE ITEM 11) 02-Jun-2004
				10A. MOD. OF CONTRACT/ORDER NO.
				10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required)				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Solicitation W912QR-04-R-0028 for the Design Build Army Reserve Center Organizational Maintenance Shop and Unheated Storage Facility project at Leavenworth, KS is hereby amended as follows: SEE ATTACHED				
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
		TEL: _____ EMAIL: _____		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED	
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)	07-Jul-2004	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION SF 30 - BLOCK 14 CONTINUATION PAGE

The following have been added by full text:

AMENDMENT 0002

a. The following changes have been made by Amendment 0002:

1. Section 00115, Proposal Submission requirements (revised)
2. Section 00130, Proposal Evaluation Criteria (revised)
3. Specification 00800, Special Clauses (revised)
4. Specification 01020, Statement of Work (revised)
5. Specification 01021, Design Submissions after Award (revised)
6. Wage Rates, Decision KS030008 dated 2 JUL 2004 with six modifications

b. The proposal due date remains 21 July 2004, 4:00 p.m. local time.

c. This amendment must be acknowledged with your proposal.

d. All other terms and conditions remain the same.

AMENDMENT NO. 0002

SECTION 00115

PROPOSAL SUBMISSION REQUIREMENTS

1. WHO MAY SUBMIT Firms formally organized as design-build entities, design firms and construction contractors that have associated specifically for this project, or any other interested parties may submit proposals. For the purposes 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) before award of a contract and as the design-build contractor (or simply contractor) after award.

2. GENERAL REQUIREMENTS

2.1 The intent of this solicitation is to select one contractor for the design and construction of the Army Reserve Center (ARC)/ Organizational Maintenance Shop (OMS)/ Unheated Storage (UNHTD STRG) Facility at Leavenworth, Kansas. Award of this Contract will be based on a Best Value determination.

2.2. Offerors submitting proposals for this project should limit submissions to data essential for evaluation of proposals. However, in order to be effectively and equitably evaluated, the proposals must include information sufficiently detailed to clearly describe the offeror's experience, technical approach and management capabilities to successfully complete the project. Requirements stated in this RFP are minimums, unless otherwise stated. Innovative, creative or cost-saving proposals that meet or exceed these requirements are encouraged and will be rated accordingly.

2.3 Offerors shall submit their proposals to the US Army Corps of Engineers, 600 Dr. Martin Luther King, Jr. Place, Room 821, Louisville, KY 40202-2230 no later than the time and date specified on Specification Section 00010, Standard Form 1442, Block 13. Offerors who present disorganized proposals or proposals with information that does not follow in the order of the Solicitation Tab Format (Section 1 TAB A, TAB B, TAB C, TAB D; Section 2 TAB A, TAB B, TAB C, TAB D, TAB E; and Section 3 TAB A, TAB B, TAB C), assume the risk that the agency will not evaluate their proposal or will downgrade their proposal.

2.4 All proposal materials shall be submitted in binders with a table of contents and tabbed section dividers. The sections shall parallel the submission requirements identified in paragraph 3.

2.4.1 Submit the original and six copies of the material required. The price proposal shall be submitted in original format only (no copies), and be placed in a separate envelope. Also, in that same envelope place the Representations & Certifications, the Cost Breakout Sheet, Subcontracting Information, and Standard Form 1442.

2.4.2 Proposed betterments are to be indicated in a separate section of the proposal and tabbed "Betterments".

3. PROPOSAL SECTIONS.

3.1. The RFP Proposal shall include: Section 1: Experience of the Prime Contractor, Design Contractor, Subcontractors and Key Personnel; Section 2: Technical Approach; and Section 3: Past Performance of the Construction Firm, Design Firm, and Subcontractors. These evaluation factors are listed in descending order of importance.

3.1.1. Experience of the Prime Contractor, Design Contractor, and Subcontractor(s). Identify all projects that the team has accomplished together. (Section 1)

3.1.1.1. Prime Contractor Experience (Section 1 TAB A):

Provide descriptions of new building projects, up to five examples, completed within the last five years, which are similar to this project in scope (office, administrative, or training facilities and/or maintenance shops) and dollar value. Provide one page per project and a color photo is preferred. In each description, detail the work which was self-performed. Offeror should use the attached forms after this specification section, or provide identical information.

3.1.1.2. Design Contractor Experience (Section 1 TAB B):

Provide descriptions of new building projects, up to five examples, completed (designed and constructed) within the last five years, which are similar to this project in scope (office, administrative, or training facilities and/or maintenance shops) and dollar value. Provide one page per project and a color photo is preferred. In each description, detail the work which was self-performed. Offeror should use the attached forms after this specification section, or provide identical information.

3.1.1.3. Subcontractors Experience (Section 1 TAB C):

Provide submission of background information for the major subcontractors – roofing and primary mechanical. If this work is to be performed by the prime contractor, this shall be stated.

A. Provide descriptions of new building projects, up to three examples, completed within the last five years, which are similar to this project in scope (office, administrative, or training facilities and/or maintenance shops) and dollar value. Provide one page per project. In each description, detail the work which was self-performed. Offeror should use the attached forms after this specification section or provide identical information.

3.1.1.4. Key Personnel (Section 1 TAB D): Identify key personnel to be assigned to this project:

- (1) The Project Manager who will be responsible for both design and construction throughout the life of the project;
- (2) Construction Project Superintendent
- (3) Construction Quality Control Systems Manager
- (4) Design Project Manager
- (5) Lead Architect and/or Architect of Record
- (6) Lead Civil Engineer
- (7) Lead Geotechnical Engineer

Offeror should use the attached form at the end of this specification section, or provide identical information for resumes. Indicate under specific experience the role each individual had in any project examples cited. The requirement specified in Section 00800, paragraph 1.69 under Clause 52.236.25, Requirements for Registration of Designers shall be met. Indicate which individuals will be the registered designers of record.

3.1.2. Technical Approach (Section 2)

3.1.2.1. (Section 2 TAB A) Compose a clear, concise narrative for this Leavenworth ARC project for all areas of this project. The narrative shall also note any improvements or exceptions taken, including an explanation. Describe team's approach to the project.

3.1.2.2. (Section 2 TAB B) Provide drawings showing proposed elevations of all buildings, depicting an aesthetically pleasing appearance to this building. This is a highly visible project on Highway 73. The Army Reserve desires to provide a presence there, depicting an attractive modern facility.

3.1.2.3. (Section 2 TAB C) Exterior Building Envelope for all Buildings. Provide narrative about the Roofing System, detailing concurrence with specifications, and compliance with the RFP in regards to manufacturer's data and warranty. Describe the exterior wall system. Describe the window/curtain wall system and all glazing.

3.1.2.4 (Section 2 TAB D) Provide narrative explaining Contractor's approach to avoid differential settlement which may result from varying material at foundation depth (i.e. shale bedrock vs. native clay or fill) and to address building deflection that could result from long-term settlement of clay soil located throughout the site. Explain proposed approach to remediation of settlement due to clays underlying site as described in the subsurface investigation furnished as part of the RFP and the effect of remedial soils work on overall project sequence and schedule of work.

3.1.2.5. Project Management (Section 2 TAB E):

3.1.2.5.1. (Section 2 TAB E.1) Organizational Chart. Provide a project organizational chart depicting the organization described in your proposal. Indicate how the construction firm, design firm, and subcontractors interrelate, and show the appropriate authority levels. Clearly identify the line of authority. Identify subcontractors and clearly identify on-site from off-site personnel.

3.1.2.5.2. (Section 2 TAB E.2) Schedule – Provide a bar chart showing the calendar days (not dates) anticipated for completing the project, integrating design and construction. Fast tracking will be considered. Provide sufficient detail to indicate interrelationship of tasks, including:

- Show all required design phases, including required durations for reviews and resolution of comments
 - Show the construction phase for all major components in each discipline
 - Show milestones
- Identify any fast-tracking that may be approved by the Contracting Officer
 - Show completion, turnover, and as-built submissions
 - Show all significant construction phase activities
 - Identify critical path items

3.1.2.5.3. (Section 2 TAB E.3) Designer Role - Submit narrative describing the role of the design team during the project from preparation of proposal in response to this solicitation through all phases of design, construction, commissioning, and warranty. Explain how construction Request For Information will be addressed.

3.1.3 Past Performance (SECTION 3).

3.1.3.1. (Section 3 TAB A) Provide Construction Firm past performance information and evaluations on the projects listed under TAB C, including performance ratings, letters, awards, references (include Point of Contact and Phone Number), etc.

3.1.3.2. (Section 3 TAB B) Provide Design Firm past performance information and evaluations on the projects listed under TAB C, including performance ratings, letters, awards, references (include Point of Contact and Phone Number), etc.

3.1.3.3. (Section 3 TAB C) Provide Subcontractor(s) past performance information and evaluations on the projects listed under TAB C, including performance ratings, letters, awards, references (include Point of Contact and Phone Number), etc.

3.1.4. Price Proposal

The offeror shall submit in a separate envelope, Standard Form 1442 and Form 336 (Proposal Bid Schedule), and the Cost Breakdown Sheet in an original only. Both of these forms are included in Section 00010, Solicitation, Offer, and Award of this solicitation.

3.1.5 Pro Forma Requirements

Pro Forma Requirements shall be submitted in original only and placed in a separate envelope labeled, "Pro Forma Requirements". This consists of Section 00600, Representations and Certifications. And the Subcontracting Plan.

Sub-Contracting Information (Go/No-Go) (One copy only)

(a) Past Performance on Utilization of Small Business-Concerns. All firms must identify your efforts to comply with Clause 52.219-8, Utilization of Small Business Concerns. If you are a large business, provide copies of subcontracting plans, both initial and final, which clearly represent your efforts to comply with FAR Clause 52.219-9, Small Business Subcontracting Plan. If you are a small business, provide details of efforts on previous projects that clearly represent your efforts to comply with FAR Clause 52.219-8. Information is to be limited to the projects identified under Section I, Experience.

(b) Subcontracting Plan for Large Business. Large business offerors shall submit a subcontracting plan in accordance with the above numbered FAR Clauses. To be acceptable, plans must adequately address the required statutory elements and provide sufficient information to enable the Contracting Officer to answer affirmatively questions A through H of Appendix DD, Part 2, AFARS 19.705. You may use the attached sample subcontracting plan as a starting point. Percentage goals apply to the total amount being subcontracted. The current goals for the Louisville District are 57.2% to Small Business, 10.0% to Small Disadvantaged Business, 10.0% to Women-Owned Small Business, 3.0% for Hubzone Small Businesses, and 3.0% to Service-Disabled Veteran-Owned Small Business.

3.1.5.6. Pre-Award Information - One copy of the following information shall be provided:

- Proof of Financial Ability (Most recent financial statement covering assets and liabilities)
- Line of credit letter from financial institution (If needed for proof of Financial Capability)
- Name, address and telephone numbers of two credit/trade references.
- Name, address and telephone number of firm's bonding company.
- A statement of how many years the firm(s) have been in business.

- Any other pro-forma requirements indicated in Standard Form 1442 and this section
- Documentation supporting Past Performance on Utilization of Small, Small Disadvantage and Women-Owned Small Business

SAMPLE SMALL BUSINESS SUBCONTRACTING PLAN

DATE: _____

CONTRACTOR: _____

ADDRESS: _____

SOLICITATION/CONTRACT NO: _____ CONTRACT AMOUNT \$ _____

DESCRIPTION: _____

Our firm has established a policy to afford Small Business concerns (SB), Small Disadvantaged Business concerns (SDB), Women-Owned Small Business concerns (WOSB), Veteran-Owned Small Business concerns (VOSB), Service Disabled Veteran-Owned Small Business concerns (SDVOSB), Historically Black Colleges and Universities/Minority Institutions (HBCU/MI) and HUBZone Small Business (HSB) concerns opportunities to participate in all contracts with the Department of Defense or other entities, both public and private. In most instances, HBCU/MI are not applicable to construction contracts, but will be included throughout this plan with the intent to involve them whenever possible. The following, together with any attachments, is hereby submitted as a Small Business Subcontracting Plan to satisfy the applicable requirements of Public Law 95-507, Public Law 99-661, Section 1207, and Public Law 100-180, Section 806.

1. (a) **BASE BID ONLY:** The following percentage goals (expressed in terms of a percentage of total planned subcontracting dollars) and dollar amounts are applicable to the contract cited above or to the contract awarded under the solicitation cited. Total Base Bid is \$ _____.

(i) Total Planned Subcontracting Dollars \$ _____

(i) Small Business concerns (SB): _____% or \$ _____ of total planned subcontracting dollars under this contract will be awarded to subcontractors who are SB.

(iii) Small Disadvantaged Business concerns (SDB): _____% or \$ _____ of total planned subcontracting dollars under this contract will be awarded to subcontractors who are small concerns owned and controlled by socially and economically disadvantaged individuals and appear on the Small Business Administration's Procurement and Marketing and Access Network (PRO-Net). (<http://pro-net.sba.gov>) This percentage is included in the percentage shown under 1 (a)(i) above, as a subset.

(iv) Women-Owned Small Business concerns (WOSB): _____% or \$ _____ of total planned subcontracting dollars under this contract will be awarded to subcontractors who are WOSB. This percentage is included in the percentage shown under 1.(a)(i) above, as a subset.

(v) Veteran-Owned Small Business concerns (VOSB): _____% or \$ _____ of total planned subcontracting dollars under this contract will be awarded to subcontractors who are VOSB. This percentage is included in the percentage shown under 1 (a) (i) above, as a subset.

(vi) Service-Disabled Veteran-Owned Small Business concerns (SDVOSB): _____% or \$ _____ of total planned subcontracting dollars under this contract will be awarded to subcontractors who are SDVOSB. This percentage is included in the percentage shown under 1 (a) (i) above.)

(vii) Historically Black Colleges and Universities/Minority Institutions (HBCU/MI):

(d) Indirect and overhead costs (check one): ____ have been ____ have not been included in the goals specified in 1(a) and 1(b).

(e) If "have been" is checked, explain the method used in determining the proportionate share of indirect and overhead cost to be allocated as subcontracts to small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

2. The following individual will administer the subcontracting program:

Name & Title: _____

Address & Telephone: _____

This individual's specific duties, as they relate to the firm's subcontracting program, are as follows:
General overall responsibility for this company's Small Business Program, the development, preparation and execution of individual subcontracting plans and for monitoring performance relative to contractual subcontracting requirements contained in this plan, including but not limited to:

(a) Developing and maintaining offerors/bidders lists of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns from all possible sources. Our 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 business, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged and women-owned small business source list. The Small Business Administration's (SBA's) list of Small Disadvantaged Businesses and small HUBZone businesses can be accessed at <http://pro-net.sba.gov/pro-net/search.html>.

(b) Ensuring that procurement packages are structured to permit small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns to participate to the maximum extent possible.

(c) Assuring inclusion of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all solicitations for products or services that they are capable of providing.

*2

(d) Reviewing solicitations to remove statements, clauses, etc., which may tend to restrict or prohibit small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business participation, including recommendations to set aside competitions for SDB's

*2

- (e) Ensuring periodic rotation of potential subcontractors on bidders' lists.
- (f) Ensuring that the bid proposal review board documents its reasons for not selecting low bids submitted by small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.
- (g) Ensuring the establishment and maintenance of records of solicitations and subcontract award activity.
- (h) Attending or arranging for attendance of company counselors at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.
- (i) Conducting or arranging for conduct of motivational training for purchasing personnel pursuant to the intent of Public Laws 95-507, 99-661, and 100-180.
- (j) Monitoring attainment of proposed goals.

*2

(k) Preparing and submitting periodic subcontracting reports required, which will include Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and SF 295, Summary Subcontract Report, in accordance with the instructions on the forms.

*2

- (l) Coordinating contractor's activities during the conduct of compliance reviews by Federal agencies.
- (m) Coordinating the conduct of contractor's activities involving its small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontracting program.
- (n) Notifying the Contracting Officer or his representative in writing of any substitutions of firms that are not small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business for the firms listed in the subcontracting plan.
- (o) Additions to (or deletions from) the duties specified above are as follows:

3. The following efforts will be taken to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns will have an equitable opportunity to compete for subcontracts, including items not traditionally awarded to SB or SDB firms:

- (a) Outreach efforts will be made by:

(i) Contacts with minority and small business trade associations such as 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.

(ii) Contacts with business development organizations.

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(iii) Attendance at small and minority business procurement conferences and trade fairs.

*2

(iv) Sources will be requested from Small Business Administration's Procurement Marketing and Access Network (PRO-Net).

(v) Reviews to determine the competence, ability, experience and capacity available from SB and SDB firms and providing technical assistance to same.

(vi) Evaluations of our SB, SDB, WOSB, VOSB, SDVOSB and HUBZone award performance and program effectiveness against goals established company-wide.

(b) The following internal efforts will be made to guide and encourage buyers:

(i) Workshops, seminars and training programs will be conducted.

(ii) Activities will be monitored to evaluate compliance with this subcontracting plan, evaluating SB, SDB, WOSB, VOSB, SDVOSB and HUBZone award performance and program effectiveness.

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(c) Small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concern source lists, guides and other data identifying small, small disadvantaged and women-owned small business concerns will be maintained and utilized by buyers in soliciting subcontracts.

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(d) Additions to (or deletion from) the above listed efforts are as follows:

4. The offeror (contractor) agrees that the clause entitled "Utilization of Small Business Concerns" at FAR 52.219-8 will be included in all subcontracts that offer further subcontracting opportunities, and all subcontractors (except small business concerns) who receive subcontracts in excess of \$500,000 (\$1,000,000 in construction) will be required to adopt a subcontracting plan that complies with FAR 52.219-9. Such plans will be reviewed by comparing them with the provisions of Public Law 95-507, and assuring that all minimum requirements of an acceptable subcontracting plan have been satisfied. The acceptability of percentage goals shall be determined on a case-by-case basis depending on the supplies/services involved, the availability of potential small businesses, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small businesses, small disadvantaged businesses and women-owned small business subcontractors, and prior experience. Once approved

and implemented, plans will be monitored through the submission of periodic reports, and/or, as time and availability of funds permit, periodic visits to subcontractors facilities to review applicable records and subcontracting program progress.

*2

5. The offeror/contractor 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/contractor with the subcontracting plan and with the clause entitled "Utilization of Small Business Concerns," contained in the contract. The above reports will include Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and SF 295, Summary Subcontract Report, in accordance with the instructions on the forms.

*2

The offeror/contractor further agrees to ensure that its subcontractors agree to submit SF 294 and SF 295.

6. The offeror/contractor agrees that he will maintain at least the following types of records to document compliance with this subcontracting plan:

(a) Small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concern source lists, guides and other data identifying SB/SDB concerns.

(b) Organizations contacted for small, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small, small disadvantaged and women-owned small business sources.

(c) On a contract-by-contract basis, records on all subcontract solicitations over \$100,000, indicating on each solicitation (i) whether small business concerns were solicited, and if not, why not; (ii) whether veteran-owned small business concerns were solicited, and if not, why not; (iii) whether service-disabled veteran-owned small business concerns were solicited, and if not, why not; (iv) whether HUBZone small business concerns were solicited, and if not, why not; (v) whether small disadvantaged business concerns were solicited, and if not, why not; (vi) whether women-owned small business concerns were solicited, and if not, why not; and (vii) reasons for the failure of solicited small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged or women-owned small business concerns to receive the subcontract award.

(d) Records to support other outreach efforts: Contacts with veteran service organizations, Minority and Small Business Trade Associations, etc., and attendance at small and minority business procurement conferences and trade fairs.

(e) Records to support internal activities to guide and encourage buyers: Workshops, seminars, training programs, etc., monitoring activities to evaluate compliance.

(f) On a contract-by-contract basis, records to support subcontract award data to include name and address and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(g) Records to be maintained in addition to the above are as follows:

Signed: _____ Date: _____

Typed Name and Title: _____

Plan Accepted by: _____ Date: _____
Contracting Officer

RESUME

Name of firm _____

Assignment on this project _____

Name and Title _____

Active Registration: No. _____ State(s) _____ Year _____

No. of years: With this firm _____ With other firms _____

No. of years in lead role: _____

Education (Degree(s)/Year/Specialization): _____

Your specific experience and qualifications relevant to this project.

(Use continuation sheets, if needed)

PRIME CONTRACTOR/SUBCONTRACTOR EXPERIENCE

Company name _____

Name of Project/Location _____

General Scope of Project _____

Role (prime, joint venture, subcontractor) and work your company self-performed, and # of years in this role

Construction Cost _____

Extent and type of work you subcontracted out _____

Original BOD _____ Final BOD _____

Customer Satisfaction _____

Lost time accidents _____

Type and amount of modifications _____

Type and amount of liquidated damages _____

Original Contract Amount _____ Final Contract Amount _____

DESIGN EXPERIENCE

Company name _____

Name of Project/Location _____

General scope of project _____

Role (prime, joint venture, subcontractor) in the design and the work firm self-performed

Estimated Construction Cost _____

Design Fee _____

Extent and type of design work you subcontracted _____

Your performance evaluation _____

Original BOD _____ Final BOD _____

AMENDMENT NO. 0002**SECTION 00130
PROPOSAL EVALUATION CRITERIA**

1. GENERAL. This solicitation will be a design/build selection. A Source Selection Evaluation Board (SSEB), comprised of representatives of the Corps of Engineers and the Using Agency, will evaluate the proposals. Offerors are advised that the technical/quality proposals are reviewed and rated without knowledge of the price offered. The number and identities of offerors are not revealed to anyone who is not involved in the evaluation and award process or to other offerors. Proposals will be evaluated based on the factors described herein and the basis of award is the Trade-Off Process

1.1 Betterments. Betterments are addressed in the Solicitation. Offerors who include any betterment items in their proposal should fully describe their offer to the Government.

2. EVALUATION FACTORS. The relative order of importance of the evaluation factors are as follows: 1) Experience - Prime Contractor, Design Contractor, Subcontractors, and Key Personnel; 2) Technical Approach 3) Past Performance – Prime Contractor, Design Contractor, Subcontractors. Proposals will be evaluated in accordance with the descriptions below. All evaluation factors, other than price, when combined, are approximately equal to cost or price.

2.1. Experience. The Government reserves the right to check any or all cited references to verify supplied information and to assess owner satisfaction. The Government may also use other tools to gather information regarding an offeror's qualifications and past performance.

2.1.1. Prime Contractor Experience. The SSEB will evaluate both the extent and quality of recent experience, for up to five projects completed within the last five years, similar (office, administrative, or training facilities and/or maintenance shops) in nature. Documentation of successful completion of projects similar in scope and dollar value to this project will meet the requirement. Federal, Army Reserve, or National Guard projects, design-build projects, and design-build team projects, are not necessary to qualify for award; however, recent, successful experiences in these areas will be favorably considered in the evaluation. Projects not similar in size, scope, or dollar value will not be favorably considered.

2.1.2. Design Contractor Experience. The SSEB will evaluate both the extent and quality of recent experience, for up to five projects, completed within the last five years, similar (office, administrative, or training facilities and/or maintenance shops) in nature. Documentation of successful completion of projects similar in scope and dollar value to this project will meet the requirement. Federal, Army Reserve, or National Guard projects, design-build projects, and design-build team projects, are not necessary to qualify for award; however, recent, successful experiences in these areas will be favorably considered in the evaluation. Projects not similar in size, scope, or dollar value will not be favorably considered.

2.1.3. Subcontractors Experience. The SSEB will evaluate both the extent and quality of recent experience, for up to three projects, completed within the last five years, similar (office, administrative, or training facilities and/or maintenance shops) in nature. Documentation of successful completion of projects similar in scope and dollar value to this project will meet the requirement. Federal, Army Reserve, or National Guard projects, design-build projects, and design-build team projects, are not necessary to qualify for award; however, recent, successful experiences in these areas will be favorably considered in the evaluation. Projects not similar in size, scope, or dollar value will not be favorably considered.

2.1.4. Key Personnel. The SSEB will evaluate the adequacy and strength of key personnel assignments to cover the necessary design disciplines and construction staffing requirements. Proposals will be considered non-responsive by the SSEB if proposals include phrases such as "or someone similar" to identify personnel. The SSEB

will also evaluate for compliance with registration, degree of qualification and experience, familiarity with local conditions, building codes, etc. The personnel assigned to this project in the proposal shall be utilized on the project. (In the event a personnel change is needed, the replacement shall be equal in registration, qualification, and experience. The replacement must be approved by the Contracting Officer.) Each individual noted in Section 00115, paragraph 3.1.2.4. must be submitted as part of the submission by the offeror. If requested individual management personnel specifically for this project are not submitted for evaluation, the offeror's proposal will not be favorably evaluated. The SSEB prefers that one person is submitted for each category. If more than one person is submitted for each category, the evaluation will be based on the least qualified of the candidates.

2.2. Technical Approach. The technical requirements of the proposal consist of six areas as noted below. The SSEB will evaluate the offeror's understanding of these factors and the quality level being proposed.

2.2.1. RFP Design Requirements Narrative. The RFP narrative will be evaluated for completeness and thoroughness, by including all building design features of the RFP. An innovative design narration showing quality, conformance with the RFP Solicitation. Innovative, creative, or cost saving proposals that meet or exceed these requirements are encouraged and will be rated accordingly. Proposals that demonstrate the entire team approach to design and construction will be favorably evaluated.

2.2.2. Elevation Drawings. Drawings will be provided showing the proposed elevations of all buildings. An aesthetically pleasing appearance, depicting an attractive, modern facility will be more favorably considered.

2.2.3. Exterior Building Envelope. Provide narrative detailing the exterior building systems – roofing system and exterior wall system will be evaluated for quality and function. A narrative describing concurrence with the specifications and compliance with the RFP will meet the requirement. Quality of the roofing system and exterior wall system materials that exceed the RFP requirements will be evaluated favorably.

2.2.4. Geotechnical Narrative. Provide narrative explaining Contractor's approach to avoid differential settlement which may result from varying material at foundation depth (i.e. shale bedrock vs. native clay or fill) and to address building deflection that could result from long-term settlement of clay soil located throughout the site. Explain proposed approach to remediation of settlement due to clays underlying site as described in the subsurface investigation furnished as part of the RFP and the effect of remedial soils work on overall project sequence and schedule of work. A narrative demonstrating a clear understanding of these issues and providing innovative ways to address these potential problems will be evaluated favorably.

2.2.5. Project Management. The SSEB will evaluate the areas described below.

2.2.5.1. Organizational Chart. The SSEB will evaluate the clarity, adequacy, capabilities and strengths of the offeror's organizational chart for managing a successful project. Information will be evaluated for clarity and understanding of authority and reporting responsibilities within the team. Organizational Charts that demonstrate a clear understanding of the work and an ability to coordinate resources will be evaluated favorably. Charts that do not demonstrate a clear understanding of the project, that do not demonstrate a capability to coordinate resources will be evaluated less favorably. Proposals will be considered unacceptable if they include phrases such as "or someone similar" to identify personnel. Organizational charts will exceed the RFP requirements by showing detail of the organization – showing major involvement of design team during construction phase process, field review, and shop drawing review will be favorably evaluated.

2.2.5.2 Schedule. The schedule shall include all activities required, logical activity relationship, realistic durations, reasonable, and attainable. The SSEB will evaluate the schedule to assess the strength of understanding of events associated with coordinating design submittals and incorporating design comments, fast-tracking and completion requirements. The schedule must demonstrate realistic durations, all phases, coordination, and sequence of events. Schedules offering a duration less than shown in Section 00800, will be scored more favorably if the schedule is realistic and achievable. The Government reserves

the right to accept or decline a proposed shorter duration. Schedules which show all features listed in Section 00115, Paragraph 3.1.2.5 will be favorably considered.

2.2.5.3. Designer Role. The SSEB will evaluate this factor according to the level of participation by the design team throughout the design-build process. Demonstration of an integrated team approach will be considered favorably. Demonstrated understanding of the role of the design team throughout design and construction will be favorably evaluated. A strong process for handling RFI's during construction will be favorably evaluated.

2.3 Past Performance. The Offeror's record of success in completion of quality projects on time and within budget, performance ratings, and awards will be evaluated. Information may be obtained from other sources than those identified by the Offeror.

2.3.1 Construction Contractor past performance will be evaluated. Quality projects on time and within budget, above average & higher performance ratings, and awards will be favorably considered.

2.3.2 Design Contractor past performance will be evaluated. Quality projects on time and within budget, above average & higher performance ratings, and awards will be favorably considered.

2.3.3 Subcontractors past performance will be evaluated. Quality projects on time and within budget, above average & higher performance ratings, and awards will be favorably considered.

2.4. Price Proposal. Price will be evaluated for fairness and reasonableness through the use of price analysis. Price will also be checked for unbalancing of line items. Offerors are cautioned to distribute costs appropriately.

2.5. Sub-Contracting Information (Go/No-Go) (One copy only)

*2

(a) Past Performance on Utilization of Small Business Concerns. All firms must identify your efforts to comply with Clause 52.219-8, Utilization of Small Business Concerns. **If you are a large business,** provide copies of subcontracting plans, both initial and final, which clearly represent your efforts to comply with FAR Clause 52.219-9, Small Business Subcontracting Plan. **If you are a small business,** provide details of efforts on previous projects that clearly represent your efforts to comply with FAR Clause 52.219-8. Information is to be limited to the projects identified under Section I, Experience.

(b) Subcontracting Plan for Large Business. Large business offerors shall submit a subcontracting plan in accordance with the above numbered FAR Clauses. To be acceptable, plans must adequately address the required statutory elements and provide sufficient information to enable the Contracting Officer to answer affirmatively questions A through H of Appendix DD, Part 2, AFARS 19.705. You may use the attached sample subcontracting plan as a starting point. Percentage goals apply to the total amount being subcontracted. The current goals for the Louisville District are 57.2% to Small Business, 10.0% to Small Disadvantaged Business, 10.0% to Women-Owned Small Business, 3.0% for Hubzone Small Businesses, and 3.0% to Service-Disabled Veteran-Owned Small Business.

*2

2.6 Representations and Certifications and Pro Forma Requirements

Representations and Certifications. This section will be reviewed for completeness by the Contract Specialist prior to the proposal's evaluation.

Pro Forma Requirements. This information will be utilized in order to complete the pre-award survey for the successful offeror.

(End of Summary of Changes)

AMENDMENT NO. 002

SECTION 00800

SPECIAL CLAUSES

10/02

PART 1 GENERAL

This specification section covers the Special Clauses which will be enforced during the construction phase of the contract. There are a few sections that will be enforced during the design phase. If it is intended to be followed during the design phase it will be noted in that paragraph.

1.1 REFERENCES - NOT USED

1.2 SUBMITTALS

Government approval/acceptance is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01331 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Pollution Prevention Plan;

Updated Network Analysis; G

Quality Control Plan; G,

SD-05 Design Data

Equipment-in-Place List;

Maintenance and Parts Data;

SF1413;

Notice of Soil Treatment;

Progress Photographs;

Dirt and Dust Control Plan; G

Construction and Demolition (C&D) Waste Management Plan; G

SD-07 Certificates

Warranties;

Insurance;

DA Form 3337;

SD-11 Closeout Submittals

As-Built Drawings; G

Preliminary Network Analysis; G

Complete Network Analysis; G

Updated Network Analysis; G

*2 1.3 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (APR 1984) FAR 52.211-10.

The Contractor shall be required to commence work (design phase) under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, prosecute said work diligently, and complete the entire work ready for use not later than **730 calendar days** after date of receipt of notice to proceed. The time stated for completion shall include as-built drawings, O&M manuals, operational tests/reports/training/instructions, equipment lists, and final cleanup of the premises. The contractor will receive a letter from the Government (after the design phase is complete) which will allow the construction phase to start. *2

1.4 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000) FAR 52.211-12.

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 \$1,100 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.

1.5 TIME EXTENSIONS (SEPT 2000) FAR 52.211-13 - NOT USED

1.6 EXCLUSION OF PERIODS IN COMPUTING COMPLETION SCHEDULES - NOT USED

24 Feb 92

1.7 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001

19 Sept 2000

a. At award, the Government will furnish the Contractor a compact disk containing all RFP documents. This disk will include a complete set of RFP drawing files and RFP technical specification files which have all amendments incorporated. The disk will contain drawing files in CADD format (MicroStation) and technical specifications in Word format.

The CADD files and the Word files are being provided for the Contractor's use in preparing the final contract documents.

b. The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Promptly notify the Contracting Officer of any discrepancies;

c. Omissions from the drawings or specifications or the misdescription of details of work which 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.

d. The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

TABLE OF DRAWINGS

The drawing being provided are listed in Section 01010, "Statement of Work"

1.8 AS-BUILT DOCUMENTS - NOT USED

1.9 AS-BUILT DOCUMENTS FOR DESIGN BUILD PROJECTS

4 February 1999 (Version 2)

1.9.1 General

It is the scope of this section to provide guidance to the Contractor on preparing as-built drawings and as-built specifications. An as-built drawing is a construction drawing revised to reflect the final as-built conditions of the project as a result of modifications and corrections to the project design required during construction. The final as-built drawings shall not have the appearance of marked up drawings, but that of professionally prepared drawings as if they were the "as designed" drawings.

As-built specifications are the construction specifications as modified by changes (contract mods, ACO approved variations from the construction specifications which did not result in contract mods, and any additional details which were not fully developed at the time of completion of construction documents).

As-built documents are due no later than 180 days from substantial construction completion.

1.9.2 Maintenance of As-Built Drawings (Also used during design phase)

The Contractor shall keep a careful record set of blue line prints at the job site, marked in red, of all changes and corrections from the contract drawings. The Contractor shall enter changes and corrections on drawings promptly to reflect "Current Construction". This update shall be done no less frequently than on a weekly basis for the blue line prints and update no less frequently than a quarterly basis for the CADD files, which were prepared previously in accordance with Section 01021. A confirmation shall be included that the as-builts are up to date with the submission of the

monthly project schedule. If the Contractor fails to maintain the as-built drawings as required herein, the Contracting Officer will deduct from the monthly progress payment, an amount representing the estimated monthly cost of maintaining the as-built drawings. Final payment with respect to separately priced facilities or the contract as a whole, will be withheld until proper as-built drawings have been furnished to, and accepted by the Contracting Officer. The marked-up set of plans shall reflect any changes, alterations, adjustments or modifications. Changes must be reflected on all sheets affected by the change. Changes shall include marking the drawings to reflect structural details, foundation layouts, equipment sized, and other extensions of design.

Typically, room numbers shown on the contract drawings are selected for design convenience and do not represent the actual numbers intended for use by the end user. But to ensure that the final as-built drawings shall reflect actual room numbers adopted by the end user the designer will coordinate the room numbers with the Using Agency at the start of design.

1.9.3 Maintenance of As-Built Specifications

As-built specifications shall be marked up no less frequently than on a weekly basis. Revised electronic files shall be done no less frequently than monthly.

1.9.4 Underground Utilities

The drawings shall indicate, in addition to all changes and corrections, the actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the as-built drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average elevation of the top of each run or underground structure shall also be recorded.

1.9.5 Borrow Areas - NOT USED

1.9.6 Partial Occupancy

For projects where portions of construction are to be occupied or activated before overall project completion, including portions of utility systems, as-built drawings for those portions of the facility being occupied or activated shall be supplied at the time the facility is occupied or activated. This same as-built information previously furnished must also be shown on the final set of as-built drawings.

1.9.7 As-Built Conditions That are Different From the Contract Drawings

All as-built conditions that are different from the contract drawings shall be accurately reflected on each drawing. If the as-built condition is accurately reflected on a shop drawing, then furnish that shop drawing shall be in CADD format. The final as-built drawing shall refer to the shop drawing file that includes the as-built information.

1.9.8 Additional As-Built Information that Exceeds the Detail Shown on the Contract Drawings:

These as-built conditions include those that reflect structural details, foundation layouts, equipment, sizes, mechanical room layouts and other extensions of design, that were not shown in the project design documents because the exact details were not known until after the time of approved shop drawings. It is recognized that these shop drawing submittals (revised showing as-built conditions) will serve as the as-built record without actual incorporation into the contract drawings. Furnish all such shop drawings in CADD format.

1.9.9 Final As-Built Drawings

At the time of Beneficial Occupancy of the project or at a designated phase of the project, final as-built CADD files shall be provided to the Contracting Officer in the following formats:

- (1) On CD-ROM in the format as specified in Section 01021
- (2) One full size original on photographic Mylars
- (3) The record set of blue line mark-ups

In the event the Contractor accomplishes additional work after this submittal, which changes the as-built conditions, the Contractor shall furnish a new CD-ROM, new full size original on photographic Mylars of affected sheets, and new blue line copy which depicts all the additional changes.

1.9.10 Title Blocks

Title Blocks shall be clearly marked to indicate final as-built drawings.

1.9.11 Final As-Built Specifications

Final as-built specifications shall be prepared in Word files and the electronic files shall be placed on the same CD-ROM that contains the as-built CADD files. The front sheet of the specifications shall contain an identification which clearly labels the specifications as representing as-built conditions and shall be dated with the date of the submittal.

1.9.12 Other As-Built Documents

All other documents such as design analysis, catalog cuts, certification documents that are not available in native electronic format shall be scanned and provided in an organized manner in Adobe.pdf format.

1.9.13 Final Payment

No separate or direct payment will be made for the work specified herein. All costs associated with this work shall be included in the applicable contract prices for the items requiring as-built drawings listed in the bidding schedule.]

1.10 EQUIPMENT DATA

Real Property Equipment.

Contractor shall be required to make an **Equipment-in-Place list** of all installed equipment furnished under this contract. This list shall include all information usually listed on manufacturer's name plate. The form is part of SPECIAL CLAUSES and is included following the SPECIAL CLAUSES, so to positively identify the piece of property. The list shall also include the cost of each piece of installed property F.O.B. construction site. For each of the items which is specified herein to be guaranteed for a specified period from the date of acceptance thereof, the following information shall be given: The name, serial and model number address of equipment supplier, or manufacturer originating the guaranteed item. The Contractor's guarantee to the Government of these items will not be limited by the terms of any manufacturer's guarantee to the Contractor. Furnish the list as one (1) reproducible and three (3) copies to the Contracting Officer thirty (30) calendar days before completion of any segment of the contract work which has an incremental completion date.

Maintenance and Parts Data.

The Contractor will be required to furnish a brochure, catalog cut, parts list, manufacturer's data sheet or other publication which will show detailed parts data on all other equipment subject to repair and maintenance procedures not otherwise required in Operations and Maintenance Manuals specified elsewhere in this contract. Distribution of directives shall follow the same requirements as listed in paragraph above.

1.11 PHYSICAL DATA (APR 1984) FAR 52.236-4.

2 January 1996

Data and information furnished or referred to below is furnished for the Contractor's information. The Government will not be responsible for any interpretation or conclusion drawn from the data or information by the Contractor.

Physical Conditions indicated on the drawings and in the specifications are the result of site investigations by surveys, borings, test pits and probings.

Weather Conditions. The Contractor shall make his own investigations as to weather conditions at the site. Data may be obtained from various National Weather Service offices located generally at airports of principal cities, the nearest to this project being: Akron Airport

Historical data for all areas may be obtained from:

U. S. Department of Commerce
National Climatic Center
Federal Building
Asheville, N. C. 28801

Transportation Facilities. Access ways shall be investigated by the Contractor to satisfy himself as to their existence and allowable use.

1.12 UTILITIES (APR 1984) FAR 52.236-14 (PARA. 1.12.A.(1) & 1.12.A.(2) ONLY).

a. Availability and Use of Utility Services

(1) The Contractor shall supply all utilities required to construct and maintain the project until final acceptance and/or Use and Possession prior to completion which ever occurs first.

1.13 QUANTITY SURVEYS (APR 1984) FAR 52.236-16 - NOT USED

24 February 1992

1.14 LAYOUT OF WORK (APR 1984) FAR 52.236-17

The Contractor shall be responsible for all lay out.

1.15 LINES, GRADES AND LIMITS

The Contractor shall be responsible for all layout required to properly control the work.

20 Feb 2002

1.16 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1

The Contractor shall perform on the site, and with its own organization, work equivalent to at least 15 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.

a. For purposes of this paragraph "WORK BY THE CONTRACTOR" is defined as prime Contractor direct contract labor (including testing and layout personnel), exclusive of other general condition or field overhead personnel, material, equipment, or subcontractors. The "TOTAL AMOUNT OF WORK" is defined as total direct contract labor (including testing and layout personnel), exclusive of other general condition or field overhead personnel, material, or equipment.

b. Within 7 days after the award of any subcontract, either by himself or a subcontractor, the Contractor shall deliver to the Contracting Officer a completed SF 1413, "Statement and Acknowledgment." The form shall include the subcontractor's acknowledgement of the inclusion in his subcontract of the clauses of this contract entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act-Overtime Compensation," "Apprentices and Trainees," "Compliance with Copeland Regulations," "Withholding of Funds," "Subcontracts," "Contract Termination-Debarment," and "Payrolls and Basic Records." Nothing contained in this contract shall create any contractual relation between the subcontractor and the Government.]

1.17 SUPERINTENDENCE OF SUBCONTRACTORS - NOT USED

1.18 IDENTIFICATION OF EMPLOYEES. - NOT USED

1.19 CONTRACTOR-PREPARED NETWORK ANALYSIS SYSTEM - SEE SPEC SECTION 01320 FOR REQUIREMENTS

1.20 WARRANTY OF CONSTRUCTION (MAR 1994) ALTERNATE 1 (APR 1984) FAR 52.246-21I.

a. General Requirements

(1) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph 1.20.a.(10) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(2) This warranty shall continue for a period of 1 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.

(3) 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--

(a) The Contractor's failure to conform to contract requirements; or

(b) Any defect of equipment, material, workmanship, or design furnished.

(4) 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.

(5) The Contracting Officer shall notify the Contractor, in writing, (see para. 1.20.b.(3) and 1.20.e) within a reasonable time after the discovery of any failure, defect, or damage.

(6) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, (see para. 1.20.5) the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(7) 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--

(a) Obtain all warranties that would be given in normal commercial practice;

(b) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(c) Provide names, addresses, and telephone numbers of all subcontractors, equipment suppliers, or manufacturers with specific designation of their area of responsibilities if they are to be contacted directly on warranty corrections; and

(d) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(8) In the event the Contractor's warranty under paragraph of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(9) 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 or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(10) 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.

(11) Defects in design or manufacture of equipment specified by the Government on a "brand name and model" basis, shall not be included in this warranty. In this event, the Contractor shall require any subcontractors, manufacturers, or suppliers thereof to execute their warranties, in writing, directly to the Government.

b. Performance Bond

(1) The Contractor's Performance Bond will remain effective throughout the construction warranty period and warranty extensions.

(2) In the event the Contractor or his designated representative(s) fails to commence and diligently pursue any work required under this clause, and in a manner pursuant to the requirements thereof, the Contracting Officer shall have a right to demand that said work be performed under the Performance Bond by making written notice on the surety. If the surety fails or refuses to perform the obligation it assumed under the Performance Bond, the Contracting Officer shall have the work performed by others, and after completion of the work, may make demand for reimbursement of any or all expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

(3) Following oral or written notification of required warranty repair work, the Contractor will respond as dictated by para. 1.20.e. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor as outlined in the paragraph 1.20.b.(2) above.

c. Pre-Warranty Conference

Prior to contract completion and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this clause. Communication procedures for Contractor notification of warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor will furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warrantied

(d) If the manufacturer's name (MFG), model number and serial number are on the manufacturer's equipment data plate and this data plate is easily found and fully legible, this information need not be duplicated on the equipment warranty tag. The Contractor warranty expires (warranty expiration date) and the final manufacturer's warranty expiration date will be determined as specified by para. 1.20.1.

(2) Execution. The Contractor will complete the required information on each tag and install these tags on the equipment by the time of and as a condition of final acceptance of the equipment.

(3) Payment. The work outlined above is a subsidiary portion of the contract work, and has a value to the Government approximating 5% of the value of the Contractor furnished equipment. The Contractor will assign a value of that amount in the breakdown for progress payments mentioned in the Contract Clause: PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS.

(4) Equipment Warranty Tag Replacement. As stated in para. 1.20.1.4, the Contractor's warranty with respect to work repaired or replaced shall run for one year from the date of repair or replacement. Such activity shall include an updated warranty identification tag on the repaired or replaced equipment. The tag shall be furnished and installed by the Contractor, and shall be identical to the original tag, except that the Contractor's warranty expiration date will be one year from the date of acceptance of the repair or replacement.

e. Contractor's Response to Warranty Service Requirements. Following oral or written notification by the Contracting Officer or an authorized representative of the installation designated in writing by the Contracting Officer, the Contractor shall respond to warranty service requirements in accordance with the "Warranty Service Priority List" and the three categories of priorities listed below.

First Priority Code 1 Perform on site inspection to evaluate situation, determine course of action, initiate work within 24 hours and work continuously to completion or relief.

Second Priority Code 2 Perform on site inspection to evaluate situation, determine course of action, initiate work within 48 hours and work continuously to completion or relief.

Third Priority Code 3 All other work to be initiated within 5 work days and work continuously to completion or relief.

The "Warranty Service Priority List" is as follows:

Code 2 Air Conditioning Systems
 a. Recreational support.
 b. Air conditioning leak in part of building, if causing damage.
 c. Admin buildings with ADP equipment not on priority list.

Code 1 Doors
 a. Overhead doors not operational.

- Code 1 Electrical
 - a. Power failure (entire area or any building operational after 1600 hours).
 - b. Traffic control devices.
 - c. Security lights.

- Code 2 Electrical
 - a. Power failure (no power to a room or part of building).
 - b. Receptacle and lights.
 - c. Fire alarm systems.

- Code 1 Gas
 - a. Leaks and breaks.
 - b. No gas to family housing unit or cantonment area.

- Code 2 Heat
 - a. Medical storage.
 - b. Barracks.

- Code 1 Intrusion Detection Systems
 - Finance, PX and Commissary, and high security areas.

- Code 2 Intrusion Detection Systems
 - Systems other than those listed under Code 1.

- Code 1 Kitchen Equipment
 - a. Dishwasher.
 - b. All other equipment hampering preparation of a meal.

- Code 2 Kitchen Equipment
 - All other equipment not listed under Code 1.

- Code 2 Plumbing
 - a. Flush valves.
 - b. Fixture drain, supply line commode, or water pipe leaking.
 - c. Commode leaking at base.

- Code 2 Refrigeration
 - Mess hall - other than walk-in refrigerators and freezers.

- Code 1 Roof Leaks
 - Temporary repairs will be made where major damage to property is occurring.

- Code 2 Roof Leaks
 - Where major damage to property is not occurring, check for location of leak during rain and complete repairs on a Code 2 basis.

- Code 2 Water (Exterior)
 - No water to facility.

Code 1 Water, Hot (and Steam)
 a. Hospitals.
 b. Mess halls.
 c. BOQ, BEQ, barracks (entire building).
 d. Medical and dental.

Code 2 Water, Hot
 No hot water in portion of building listed under
 Code 1 (items a through c).

Code 1 Sprinkler System
 All sprinkler systems, valves, manholes, deluge
 systems, and air systems to sprinklers.

(1) Should parts be required to complete the work and the parts are not immediately available, the Contractor shall have a maximum of 12 hours after arrival at the job site to provide the Contracting Officer or an authorized representative of the installation designated in writing by the Contracting Officer, with firm written proposals for emergency alternatives and temporary repairs for Government participation with the Contractor to provide emergency relief until the required parts are available on site for the Contractor to perform permanent warranty repair. The Contractors proposals shall include a firm date and time that the required parts shall be available on site to complete the permanent warranty repair. The Contracting Officer or an authorized representative of the installation designated in writing by the Contracting Officer, will evaluate the proposed alternatives and negotiate the alternative considered to be in the best interest of the Government to reduce the impact of the emergency condition. Alternatives considered by the Contracting Officer or an authorized representative of the installation designated in writing by the Contracting Officer will include the alternative for the Contractor to "Do Nothing" while waiting until the required parts are available to perform permanent warranty repair. Negotiating a proposal which will require Government participation and the expenditure of Government funds shall constitute a separate procurement action by the using service.

1.21 PAYMENT FOR MOBILIZATION AND PREPARATORY WORK (JAN 1997) DFARS 252.236-7003

- a. The Government may make payment to the Contractor under the procedures in this clause for mobilization and preparatory work.
- b. Payments will be made for actual payments by the Contractor on work preparatory to commencing actual work on the construction items for which payment is provided under the terms of this contract.

1.22 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991) DFARS 252.236-7004. - NOT USED

1.23 SALVAGE MATERIALS AND EQUIPMENT. - NOT USED

1.24 IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY (APR 1984) FAR 52.245-3.

- 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 at

the place specified below. 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 also 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.

b. The Contractor is required to [accept delivery, pay any demurrage or detention charges, and unload and] transport the property to the jobsite at its own expense.

c. Each item of property to be furnished under this clause shall be identified in the Schedule by quantity, item, and description.

Quantity	Item	Description
2	Plaques	Minute Man Plaques

1.25 AGGREGATE SOURCES - NOT USED

1.26 PROJECT SIGN - NOT USED

1.27 NOT USED

1.28 WAGE RATES

The decision of the Secretary of Labor, covering rates of wages, including fringe benefits to be paid laborers and mechanics performing work under this contract, is attached hereto. The payment for all classes of laborers and mechanics actually employed to perform work under the contract will be specified in the following contract clauses: DAVIS-BACON ACT, CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, and THE COPELAND ACT.

[Wage decisions included are: [_____]]

The building decision applies to construction of [_____]. The Heavy/Highway decision applies to any work located outside the exterior wall of the building(s).]

[The work to be performed is located in the States of _____ and [_____].]

Wage decisions included are: [_____]]

1.29 PURCHASE ORDERS - NOT USED

1.30 INTERFERENCE WITH TRAFFIC AND PUBLIC AND PRIVATE PROPERTY.

a. The Contractor at all times shall dispose his plant and conduct the work in such manner as to cause as little interference as possible with private and public travel. Damage (other than that resulting from normal wear and tear) to roads, shall be repaired to as good a condition as they were prior to the beginning of work and to the satisfaction of the Contracting Officer.

b. The Contractor shall provide and maintain as may be required by the State of Kansas, Department of Transportation, proper barricades, fences, danger signals and lights, provide a sufficient number of watchmen, and take such other precautions as may be necessary to protect life, property and structures, and shall be liable for and hold the Government free and harmless from all damages occasioned in any way by his act or neglect, or that of his agents, employees, or workmen.

1.31 SEQUENCE OF WORK. - NOT USED

1.32 GOVERNMENT FIELD OFFICE FACILITIES AND SERVICES. - SEE SECTION 01500

1.33 COMPLIANCE WITH POST/BASE REGULATIONS. - NOT USED

1.34 EQUIPMENT AND OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)
EFAR 52.231-5000. - NOT USED

1.35 LABOR, EQUIPMENT, AND MATERIAL REPORTS

Daily Equipment Report. The Contractor shall submit a daily report of all Contractor-owned or rented equipment at the jobsite. A similar report is required for all subcontractor equipment. The subcontractor's report may be separate or included with the Contractor's report provided the equipment is adequately identified as to ownership. The required equipment report shall include each item of equipment (hand-operated small tools or equipment excluded) on the job and shall specifically identify each item as to whether it is Contractor-owned or rented, shifts, hours of usage, down time for repairs, and standby time. Identification of the equipment shall include make, model and plant number of all items. Separate identification by a key sheet providing these data may be utilized with the daily report indicating the type of equipment and the equipment plant numbers. The format of the Daily Equipment Report will be as approved by the Government in the field.

Labor, Equipment & Material Reports for Extra Work/Cost. A Report shall also be submitted by the Contractor listing any labor, equipment and materials expended on and/or impacted by any change order directed by the Government and for which total price/time agreement has not been reached. These requirements also apply to subcontractors at any tier. The same Report is required at any time the Contractor claims or intends to claim for extra costs whether or not there is Government recognition (constructive changes). This requirement is in addition to any Contractor "Notice" or "Reservation of Rights". Submittal of such a report will not be construed as satisfying the "Notice" required under the "Changes" clause or any other clause. But, absence of such Reports submitted to the Government contemporaneously with the alleged extra work/cost will be considered as evidence that no such extra work/cost occurred that are chargeable to the Government.

The Report shall be detailed to the degree required by the Government in the field and shall contain the following as a minimum:

a. The cause of the extra labor, equipment or materials costs.

b. For extra labor - Indicate crew, craft, hours, location and cost. Describe nature or type of extra costs, i.e, extra work, overtime,

acceleration, interference, reassignment, mobilizations and demobilizations, supervision, overhead, type of inefficiency, etc.

c. For extra equipment - Indicate type and description, hours, location, cost; whether working, idle, standby, under repair, extra work involved, etc.

d. For extra materials - Indicate type and description, where used, whether consumed, installed or multi-use, quantity, cost, extra work involved, etc.

e. Affected activities - Relate to Contract Schedule (Network Analysis); demonstrate whether delay or suspension is involved.

f. Segregate all entries by prime and each subcontractor.

g. Summarize costs daily and by cumulative subtotal or with frequency required by the Government.

This report will not be considered as evidence that any of the alleged extra costs actually occurred. The report will be used to check against over obligation of funds for change orders directed prior to price/time agreement and to track alleged extra costs the Contractor considers otherwise chargeable against the Government. The Government may respond at any interval to either challenge, amend or confirm the report. Absence of a Government response is not to be considered acquiescence or denial. The Government may order work stoppage if deemed necessary to avoid overobligation of funds. The frequency of the report shall be daily or as otherwise approved by the Government representative in writing.

1.36 ILLINOIS RETAILER'S OCCUPATIONAL TAX AND USE TAX. - NOT USED

1.37 INDIANA SALES AND USE TAX - NOT USED

1.38 KANSAS SALES AND USE TAX

The contract price should not include any amount for the Kansas Sales and Use Tax for building and construction materials to be used in the structure. Contractors are exempt from the payment of the Kansas Sales Tax for building structures or improvements to real property under a construction contract with the United States. The exemption certificate shall be in such form as prescribed by the Rules of the Kansas Department of Taxation (Tax Commissioner's Rule 5703-9-03) and should be signed by the Contractor, the subcontractor, and the Corps' Contracting Officer. The certificate should then be furnished to the supplier by the vendee within the period within which the supplier is required to file a return for the period in which the sale is consummated, as provided in Kansas Revised Code Section 5739.03. The exemption certificate must specify the reason that the sale is exempt. The Contractor shall be responsible for obtaining the required exemption certificate and submitting it to the Contracting Officer for exemption.

1.39 PROGRESS PHOTOGRAPHS - NOT USED

1.40 PAYMENT FOR MATERIALS DELIVERED OFFSITE. (MAR 1995) EFARS 52.232-5000.

Pursuant to CONTRACT CLAUSE: PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS, materials delivered to the Contractor at locations other than the

site of the work may be taken into consideration in making payments if included in payment estimates and if all the conditions of the CONTRACT CLAUSES are fulfilled. Payment for items delivered to locations other than the worksite will be limited to:

- (1) Materials required by the technical provisions,
- (2) Materials that have been fabricated to the point where they are identifiable to an item of work required under this contract.

Such payment will be made only after receipt of paid or receipted invoices or invoices with canceled check showing title to the items in the prime contract and including the value of material and labor incorporated into the item.

1.41 **INSURANCE--WORK ON A GOVERNMENT INSTALLATION (SEP 1989) FAR 52.228-5.**

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.

(1) Coverage complying with State laws governing insurance requirements, such as those requirements pertaining to Workman's Compensation and Occupational Disease Insurance. Employer's Liability Insurance shall be furnished in limits of not less than \$100,000.00 except in states with exclusive or monopolistic funds.

(2) Comprehensive General Liability Insurance for bodily injury coverage shall be furnished in limits of not less than \$500,000 per occurrence.

(3) Comprehensive Automobile Liability Insurance for both bodily injury and property damage, shall be furnished in limits of not less than \$200,000.00 per person, \$500,000.00 per accident for bodily injury, and \$20,000.00 per accident for property damage. When the Financial Responsibility or Compulsory Insurance Law of the State, requires higher limits, the policy shall provide for coverage of at least those higher limits.

Before commencing work under this contract, the Contractor shall submit to the Contracting Officer in writing that the required insurance certification 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.

The Contractor shall insert the substance of this clause, including this paragraph, 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.

1.42 IMPLEMENTATION OF GOVERNMENT RESIDENT MANAGEMENT SYSTEM

RMS shall be maintained in accordance with Section 01312A QUALITY CONTROL SYSTEM (QCS).

1.43 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER. ER 415-1-15
 (31 OCT 89)

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:

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.

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.

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
 WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
[16]	[13]	[8]	[5]	[4]	[4]	[4]	[4]	[4]	[4]	[7]	[13]

Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC 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 work day. 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 of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated listed above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled "Default (Fixed Price Construction)".

1.44 USE OF INCLINOMETER FOR LONG BED DUMP TRUCKS (DACF BULLETIN 25 MARCH 1993)

The recommendation of EM 385-1-1, Section 16.B.15, is mandatory for this project.

1.45 AVAILABILITY OF SAFETY AND HEALTH REQUIREMENTS MANUAL (EM 385-1-1).

As covered by CONTRACT CLAUSE "ACCIDENT PREVENTION", compliance with EM 385-1-1 is a requirement for this contract. Copies may be purchased for \$31.00 each at the following address:

United States Government Bookstore
Room 118, Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4003
Telephone: (412) 395-5021 FAX: (412) 395-4547

Or downloaded from the following website:

<http://www.usace.army.mil/inet/usace-docs/eng-manuals/em385-1-1/toc.htm>

1.46 FIRE PROTECTION DURING CONSTRUCTION (MIL-HDBK-1008C PARA. 1.6)

The Contractor is alerted to the requirements of Contract Clause "CLEANING UP" and more specifically to the requirements for fire protection during construction spelled out in EM 385-1-1 and NFPA No. 241 Building Construction and Demolition Operations. This item must be covered in the submittal required under Contract Clause "ACCIDENT PREVENTION".

1.47 HAUL ROADS - NOT USED

1.48 RADIOACTIVE MATERIAL/EQUIPMENT - NOT USED

1.49 CONSTRUCTION/SITE MANAGEMENT STANDARDS FOR CONSTRUCTION ON AMC INSTALLATIONS - NOT USED

1.50 CONSTRUCTION HAZARD COMMUNICATION

The Contractor is required to comply with the requirements of the OSHA Hazard Communication Standard (29 CFR 1926.59). This standard is designed to inform workers of safe and appropriate methods of working with hazardous substances in the workplace. The standard has five requirements, and every hazardous or potentially hazardous substance used or stored in the work area is subject to all five. They are:

(1) Hazard Evaluation. Any company which produces or imports a chemical or compound must conduct a hazard evaluation of the substance to determine its potential health or physical hazard. The hazard evaluation consists of an investigation of all the available scientific evidence about the substance. The Contractor is required to assure that all producers (manufacturer/distributors) have performed these evaluations and transmit the required information with any hazardous materials being used or stored on the project site. From the hazard evaluation, a substance may be classified as a health hazard, or a physical hazard. These classifications are then further broken down according to type:

Health Hazards

Physical Hazards

Carcinogens	Combustible liquids
Irritants	Compressed gases
Sensitizers	Explosives
Corrosives	Flammables
Toxic substances	Organic peroxides
Highly toxic substances	Unstable substances
Substances harmful to specific organs or parts of the body	Water-reactive substances

(2) Warning Labels. If a chemical is hazardous or potentially hazardous, the producer or importer must affix a warning label to every container of that chemical before it leaves his facility. The Contractor must assure these labels are attached and legible. The label must identify the chemical, state the hazard, and give the name and address of the producer or importer. If the hazardous substance is transferred to another container, that container must then be labeled, tagged, or marked with the name of the chemical and the appropriate hazard warning. Warning labels should be replaced immediately if they are defaced or removed.

(3) Material Safety Data Sheets. The producer or importer must also supply a material safety data sheet (MSDS). The Contractor must keep these available in the work area where the substance is used, so that the people using the substance can easily review important safety and health information, such as:

- The hazard possible from misuse of the substance
- Precautions necessary for use, handling, and storage
- Emergency procedures for leaks, spills, fire and first aid
- Useful facts about the substance's physical or chemical properties

(4) Work Area Specific Training. Because of hazardous substance may react differently depending on how it is used or the environment of the work area, the Contractor must conduct work area specific training; special training which takes the Contractor's operations, environment, and work policies into consideration. Work area training presents:

- The hazardous substances which are present in the work place and the hazards they pose

- Ways to protect against those hazards, such as protective equipment, emergency procedures, and safe handling

- Where the MSDS's are kept, and an explanation of the labeling system
- Where the Contractor's written Hazard Communication Program is located

(5) The Written Hazard Communication Program. In accordance with OSHA requirements, the Contractor must prepare a written Hazard Communication Program. This document will be included in the Contractor's Accident Prevention Plan. This document states how the Contractor plans to ensure that hazardous materials are appropriately labeled, how and where MSDS's will be maintained, and how employees will be provided with specific information and training.

1.51 ENVIRONMENTAL PROTECTION CLAUSE TANK CLEANING AND PAINTING (DLA NOV 1989) - NOT USED

1.52 MECHANICAL ROOM LAYOUT (ORL).

Detailed mechanical room layout drawings shall be submitted for approval in accordance with SD-04 Section 01331. Layout drawings shall show location and maintenance clearances for all mechanical room equipment, and all utility runs/chases for mechanical, electrical, telephone and other similar systems. Drawings shall be submitted at the same time as the submittals for the equipment to be located within the mechanical room.

1.53 RIGHTS IN TECHNICAL DATA--NONCOMMERCIAL ITEMS (NOV 1995)
252.227-7013 (JUN 1995).

(a) Definitions. As used in this clause:

(1) "Computer data base" means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

(2) "Computer program" means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations.

(3) "Computer software" means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

(4) "Computer software documentation" means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

(5) "Detailed manufacturing or process data" means technical data that describe the steps, sequences, and conditions of manufacturing, processing or assembly used by the manufacturer to produce an item or component or to perform a process.

(6) "Developed" means that an item, component, or process exists and is workable. Thus, the item or component must have been constructed or the process practiced. Workability is generally established when the item, component, or process has been analyzed or tested sufficiently to demonstrate to reasonable people skilled in the applicable art that there is a high probability that it will operate as intended. Whether, how much, and what type of analysis or testing is required to establish workability depends on the nature of the item, component, or process, and the state of the art. To be considered "developed," the item, component, or process need not be at the stage where it could be offered for sale or sold on the commercial market, nor must the item, component, or process be actually reduced to practice within the meaning of Title 35 of the United States Code.

(7) "Developed exclusively at private expense" means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract, or any combination thereof.

(i) Private expense determinations should be made at the lowest practicable level.

(ii) Under fixed-priced contracts, when total costs are greater than the firm-fixed-price or ceiling price of the contract, the additional development costs necessary to complete development shall not be considered when determining whether development was at government, private, or mixed expense.

(8) "Developed exclusively with government funds" means development was not accomplished exclusively or partially at private expense.

(9) "Developed with mixed funding" means development was accomplished partially with costs charged to indirect cost pools and/or costs not allocated to a government contract, and partially with costs charged directly to a government contract.

(10) "Form, fit, and function data" means technical data that describes the required overall physical, functional, and performance characteristics (along with the qualification requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.

(11) "Government purpose" means any activity in which the United States Government is a party, including cooperative agreements with international or multi-national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorize others to do so.

(12) "Government purpose rights" means the right to--

(i) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restrictions; and

(ii) Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for United States government purposes.

(13) "Limited rights" means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another part, except that the Government may reproduce, release or disclose such data or authorize the use or reproduction of the data by persons outside the Government if reproduction, release, disclosure, or use is--

(i) Necessary for emergency repair and overhaul; or

(ii) A release or disclosure of technical data (other than detailed manufacturing or process data) to, or use of such data by, a foreign government that is in the interest of the Government and is required for evaluational or informational purposes;

(iii) Subject to a prohibition on the further reproduction, release, disclosure, or use of the technical data; and

(iv) The contractor or subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

(14) "Technical data" means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such a financial and/or management information.

(15) "Unlimited rights" means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

(b) Rights in technical data.

The Contractor grants or shall obtain for the Government the following royalty free, world-wide, nonexclusive, irrevocable license rights in technical data other than computer software documentation (see Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause of this contract for rights in computer software documentations):

(1) Unlimited rights.

The Government shall have unlimited rights in technical data that are-

(i) Data pertaining to an item, component, or process which has been or will be developed exclusively with Government funds;

(ii) Studies, analyses, test data, or similar data produced for this contract, when the study, analysis, test, or similar work was specified as an element of performance;

(iii) Created exclusively with Government funds in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes;

(iv) Form, fit, and function data;

(v) Necessary for installation, operation, maintenance, or training purposes (other than detailed manufacturing or process data);

(vi) Corrections or changes to technical data furnished to the Contractor by the Government;

(vii) Otherwise publicly available or have been released or disclosed by the Contractor or subcontractor without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data to another party or the sale or transfer of some or all of a business entity or its assets to another party;

(viii) Data in which the Government has obtained unlimited rights under another Government contract or as a result of negotiations; or

(ix) Data furnished to the Government, under this or any other Government contract or subcontract thereunder, with--

(A) Government purpose license rights or limited rights and the restrictive condition(s) has/have expired; or

(B) Government purpose rights and the Contractor's exclusive right to use such data for commercial purposes has expired.

(2) Government purpose rights.

(i) The Government shall have government purpose rights for a five-year period, or such other period as may be negotiated, in technical data--

(A) That pertain to items, components, or processes developed with mixed funding except when the Government is entitled to unlimited rights in such data as provided in paragraphs (b)(ii) and (b)(iv) through (b)(ix) of this clause; or

(B) Created with mixed funding in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The five-year period, or such other period as may have been negotiated, shall commence upon execution of the contract, subcontract, letter contract (or similar contractual instrument), contract modification, or option exercise that required development of the items, components, or processes or creation of the data described in paragraph (b)(2)(i)(B) of this clause. Upon expiration of the five-year or other negotiated period, the Government shall have unlimited rights in the technical data.

(iii) The Government shall not release or disclose technical data in which it has government purpose rights unless--

(A) Prior to release or disclosure, the intended recipient is subject to the non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS); or

(B) The recipient is a Government contractor receiving access to the data for performance of a Government contract that contains the clause at DFARS 252.227-7025, Limitations on the Use or Disclosure of Government-Furnished Information Market with Restrictive Legends.

(iv) The Contractor has the exclusive right, including the right to license others, to use technical data in which the Government has obtained government purpose rights under this contract for any commercial

purpose during the time period specified in the government purpose rights legend prescribed in paragraph (f)(2) of this clause.

(3) Limited rights.

(i) Except as provided in paragraphs (b)(1)(ii) and (b)(1)(iv) through (b)(1)(ix) of this clause, the Government shall have limited rights in technical data--

(A) Pertaining to items, components, or processes developed exclusively at private expense and marked with the limited rights legend prescribed in paragraph (f) of this clause; or

(B) Created exclusively at private expense in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The Government shall require a recipient of limited rights data for emergency repair or overhaul to destroy the data and all copies in its possession promptly following completion of the emergency repair/overhaul and to notify the Contractor that the data have been destroyed.

(iii) The Contractor, its subcontractors, and suppliers are not required to provide the Government additional rights to use, modify, reproduce, release, perform, display, or disclose technical data furnished to the Government with limited rights. However, if the Government desires to obtain additional rights in technical data in which it has limited rights, the Contractor agrees to promptly enter into negotiations with the Contracting Officer to determine whether there are acceptable terms for transferring such rights. All technical data in which the Contractor has granted the Government additional rights shall be listed or described in a license agreement made part of the contract. The license shall enumerate the additional rights granted the Government in such data.

(4) Specifically negotiated license rights.

The standard license rights granted to the Government under paragraphs (b)(1) through (b)(3) of this clause, including the period during which the Government shall have government purpose rights in technical data, may be modified by mutual agreement to provide such rights as the parties consider appropriate but shall not provide the Government lesser rights than are enumerated in paragraph (a)(13) of this clause. Any rights so negotiated shall be identified in a license agreement made part of this contract.

(5) Prior government rights.

Technical data that will be delivered, furnished, or otherwise provided to the Government under this contract, in which the Government has previously obtained rights shall be delivered, furnished, or provided with the pre-existing rights, unless--

(i) The parties have agreed otherwise; or

(ii) Any restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose the data have expired or no longer apply.

(6) Release from liability.

The Contractor agrees to release the Government from liability for any release or disclosure of technical data made in accordance with paragraph (a)(13) or (b)(2)(iii) of this clause, in accordance with the terms of a license negotiated under paragraph (b)(4) of this clause, or by others to whom the recipient has released or disclosed the data and to seek relief solely from the party who has improperly used, modified, reproduced, released, performed, displayed, or disclosed Contractor data marked with restrictive legends.

(c) Contractor rights in technical data.

All rights not granted to the Government are retained by the Contractor.

(d) Third party copyrighted data.

The Contractor shall not, without the written approval of the Contracting Officer, incorporate any copyrighted data in the technical data to be delivered under this contract unless the Contractor is the copyright owner or has obtained for the Government the license rights necessary to perfect a license or licenses in the deliverable data of the appropriate scope set forth in paragraph (b) of this clause, and has affixed a statement of the license or licenses obtained on behalf of the Government and other persons to the data transmittal document.

(e) Identification and delivery of data to be furnished with restrictions on use, release, or disclosure.

(1) This paragraph does not apply to restrictions based solely on copyright.

(2) Except as provided in paragraph (e)(3) of the clause, technical data that the Contractor assets should be furnished to the Government with restrictions on use, release, or disclosure are identified in an attachment to this contract (see Attachment). The Contractor shall not deliver any data with restrictive markings unless the data are listed on the Attachment.

(3) In addition to the assertions made in the Attachment, other assertions may be identified after award when based on new information or inadvertent omissions unless the inadvertent omissions would have materially affected the source selection decision. Such identification and assertion shall be submitted to the Contracting Officer as soon as practicable prior to the scheduled date for delivery of the data, in the following format, and signed by an official authorized to contractually obligate the Contractor:

Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data.

The Contractor asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data should be restricted--

Technical Data to be Furnished With Restrictions*	Asserted Basis for Assertion**	Name of Person Rights Asserting Category***	Restrictions****
(LIST)	(LIST)	(LIST)	(LIST)

*If the assertion is applicable to items, components, or processes developed at private expense, identify both the data and each such item, component, or process.

**Generally, the development of an item, component, or process at private expense, either exclusively or partially, is the only basis for asserting restrictions on the Government's rights to use, release, or disclose technical data pertaining to such terms, components, or processes. Indicate whether development was exclusively or partially at private expense. If development was not at private expense, enter the specific reason for asserting that the Government's right should be restricted.

***Enter asserted rights category (e.g. government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited or government purpose rights under this or a prior contract, or specifically negotiated licenses).

****Corporation, individual, or other person, as appropriate.

Date _____

Printed Name and Title _____

Signature _____

(End of identification and assertion)

(4) When requested by the Contracting Officer, the Contractor shall provide sufficient information to enable the Contracting Officer to evaluate the Contractor's assertions. The Contracting Officer reserves the right to add the Contractor's assertions to the Attachment and validate any listed assertion, at a later date, in accordance with the procedures of the Validation of Restrictive Markings on Technical Data clause of this contract.

(f) Marking requirements.

The Contractor, and its subcontractor or suppliers, may only assert restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data to be delivered under this contract by marking the deliverable data subject to restriction. Except as provided in paragraph (f)(5) of this clause, only the following legends are authorized under this contract: the government purpose rights legend at paragraph (f)(2) of this clause: the limited rights legend at paragraph

(f)(3) of this clause: or the special license rights legend at paragraph (f)(4) of this clause, and/or a notice of copyright as prescribed under 17 U.S.C. 401 or 402.

(1) General marking instructions.

The Contractor, or its subcontractors or suppliers, shall conspicuously and legibly mark the appropriate legend on all technical data that qualify for such markings. The authorized legends shall be placed on the transmittal document or storage container and, for printed material, each page of the printed material containing technical data for which restrictions are asserted. When only portions of a page of printed material are subject to the asserted restrictions, such portions shall be identified by circling, underscoring, with a note, or other appropriate identifier. Technical data transmitted directly from one computer or computer terminal to another shall contain a notice of asserted restrictions. Reproductions of technical data or any portions thereof subject to asserted restrictions shall also reproduce the asserted restrictions.

(2) Government purpose rights markings.

Data delivered or otherwise furnished to the Government with government purpose rights shall be marked as follows:

GOVERNMENT PURPOSE RIGHTS

Contract No. _____

Contractor Name _____

Contractor Address _____

Expiration Date _____

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(2) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. No restrictions apply after the expiration date shown above. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(3) Limited rights markings.

Data delivered or otherwise furnished to the Government with limited rights shall be marked with the following legend:

LIMITED RIGHTS

Contract No. _____

Contractor Name _____

Contractor Address _____

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(3) of the Rights in Technical Data--Noncommercial Items clause contained in the above identified contract. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings. Any person, other than the Government, who has been provided access to such data must promptly notify the above name Contractor.

(End of legend)

(4) Special license rights markings.

(I) Data in which the Government's rights stem from a specifically negotiated license shall be marked with the following legend:

SPECIAL LICENSE RIGHTS

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these data are restricted by Contract No. _____)Insert contract number) _____, License No. _____ (Insert license identifier) _____. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(ii) For purposes of this clause, special licenses do not include government purpose license rights acquired under a prior contract (see paragraph (b)(5) of this clause)_.

(5) Pre-existing data markings.

If the terms of a prior contract or license permitted the Contractor to restrict the Government's rights to use, modify, reproduce, release perform, display, or disclose technical data deliverable under this contract, and those restrictions are still applicable, the Contractor may mark such data with the appropriate restrictive legend for which the data qualified under the prior contract or license. The marking procedures in paragraph (f)(1) of this clause shall be followed.

(g) Contractor procedures and records.

Throughout performance of this contract, the Contractor and its subcontractors or suppliers that will deliver technical data with other than unlimited rights, shall--

(1) Have, maintain, and follow written procedures sufficient to assure that restrictive markings are used only when authorized by the terms of this clause, and

(2) Maintain records sufficient to justify the validity of any restrictive markings on technical data delivered under this contract.

(h) Removal of unjustified and nonconforming markings.

(1) Unjustified technical data markings.

The rights and obligations of the parties regarding the validation of restrictive markings or technical data furnished or to be furnished under this contract are contained in the Validation of Restrictive Markings on Technical Data clause of this contract. Notwithstanding any provision of this contract concerning inspection and acceptance, the Government may ignore or, at the Contractor's expense, correct or strike a marking if, in accordance with the procedures in the Validation of Restrictive Markings on Technical Data clause of this contract, a restrictive marking is determined to be unjustified.

(2) Nonconforming technical data markings.

A nonconforming marking is a marking placed on technical data delivered or otherwise furnished to the Government under this contract that is not in the format authorized by this contract. Correction of nonconforming markings is not subject to the Validation of Restrictive Markings on Technical Data clause of this contract. If the Contracting Officer notifies the Contractor of a nonconforming marking and the Contractor fails to remove or correct such marking within sixty (60) days, the Government may ignore or, at the Contractor's expense, remove or correct any nonconforming marking.

(I) Relation to patents.

Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other with otherwise granted to the Government under any patent.

(j) Limitation on charges for rights in technical data.

(1) The Contractor shall not charge to this contract any cost, including, but not limited to, license fees, royalties, or similar charges, for rights in technical data to be delivered under this contract when--

(I) The Government has acquired, by any means, the same or greater rights in the data; or

(ii) The data are available to the public without restrictions.

(2) The limitation in paragraph (j)(1) of this clause--

(I) Includes costs charged by a subcontractor or supplier, at any tier, or costs incurred by the Contractor to acquire rights in subcontractor or supplier technical data, if the subcontractor or supplier has been paid for such rights under any other Government contract or under a license conveying the rights to the Government; and

(ii) Does not include the reasonable costs of reproducing, handling, or mailing the documents or other media in which the technical data will be delivered.

(k) Applicability to subcontractors or suppliers.

(1) The Contractor shall ensure that the rights afforded its subcontractors and suppliers under 10 U.S.C. 2320, 10 U.S.C. 2321, and the identification, assertion, and delivery processes of paragraph (e) of this clause are recognized and protected.

(2) Whenever any technical data for noncommercial items is to be obtained from a subcontractor or supplier for delivery to the Government under this contract, the Contractor shall use this same clause in the subcontract or other contractual instrument, and require its subcontractors or suppliers to do so, without alteration, except to identify the parties. No other clause shall be used to enlarge or diminish the Government's, the Contractor's, or a higher-tier subcontractor's or supplier's rights in a subcontractor's or supplier's technical data.

(3) Technical data required to be delivered by a subcontractor or supplier shall normally be delivered to the next higher-tier contractor, subcontractor, or supplier. However, when there is a requirement in the prime contract for data which may be submitted with other than unlimited rights by a subcontractor or supplier, then said subcontractor or supplier may fulfill its requirement by submitting such data directly to the Government, rather than through a higher-tier contractor, subcontractor, or supplier.

(4) The Contractor and higher-tier subcontractors or suppliers shall not use their power to award contracts as economic leverage to obtain rights in technical data from their subcontractors or suppliers.

(5) In no event shall the Contractor use its obligation to recognize and protect subcontractor or supplier rights in technical data as an excuse for failing to satisfy its contractual obligation to the Government.

1.54 LIMITATIONS ON THE USE OR DISCLOSURE OF GOVERNMENT-FURNISHED INFORMATION MARKED WITH RESTRICTIVE LEGEND DFARS 252.227-7025 (JUN 1995)

(a)(1) For contracts requiring the delivery of technical data, the terms, "limited rights" and "Government purpose rights" are defined in the Rights in Technical Data--Noncommercial Items clause of this contract.

(2) For contracts that do not require the delivery of technical data, the terms "government purpose rights" and "restricted rights" are defined in the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause of this contract.

(3) For Small Business Innovative Research program contracts, the terms "limited rights" and "restricted rights" are defined in the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause of this contract.

(b) Technical data or computer software provided to the Contractor as Government furnished information (GFI) under this contract may be subject to restrictions on use, modification, reproduction, release, performance, display, or further disclosure.

- (1) GFI marked with limited or restricted rights legends.

The Contractor shall use, modify, reproduce, perform, or display technical data received from the Government with limited rights legends or computer software received with restricted rights legends only in the performance of this contract. The Contractor shall not, without the express written permission of the party whose name appears in the legend, release or disclose such data or software to any person.

- (2) GFI marked with government purpose rights legends.

The Contractor shall use technical data or computer software received from the Government with government purpose rights legends for government purposes only. The Contractor shall not, without the express written permission of the party whose name appears in the restrictive legend, use, modify, reproduce, release, perform, or display such data or software for any commercial purpose or disclose such data or software to a person other than its subcontractors, suppliers, or prospective subcontractors or suppliers, who require the data or software to submit offers for, or perform, contracts under this contract. Prior to disclosing the data or software, the Contractor shall require the persons to whom disclosure will be made to complete and sign the non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS).

- (3) GFI marked with specially negotiated license rights legends.

The Contractor shall use, modify, reproduce, release, perform, or display technical data or computer software received from the Government with specially negotiated license legends only as permitted in the license. Such data or software may not be release or disclosed to other persons unless permitted by the license and, prior to release or disclosure, the intended recipient has completed the non-disclosure agreement at DFARS 227.7103-7. The Contractor shall modify paragraph (1)(c) of the non-disclosure agreement to reflect the recipient's obligations regarding use, modification, reproduction, release, performance, display, and disclosure of the data of software.

- (c) Indemnification and creation of third party beneficiary rights.

The Contractor agrees--

(1) To indemnify and hold harmless the Government, its agents, and employees from every claim or liability, including attorneys fees, court costs, and expenses, arising out of, or in any way related to, the misuse or unauthorized modification, reproduction, release, performance, display, or disclosure of technical data or computer software received from the Government with restrictive legends by the Contractor or any person to whom the Contractor has released or disclosed such data or software; and

(2) That the party whose name appears on the restrictive legend, in addition to any other rights it may have, is a third party beneficiary who has the right of direct action against the Contractor, or any person to whom the Contractor has released or disclosed such data or software, for the unauthorized duplication, release, or disclosure of technical data or computer software subject to restrictive legends.

1.55 NOT USED1.56 VARIATIONS IN ESTIMATED QUANTITIES - SUBDIVIDED ITEMS (MAR 1995) EFARS
52.212-5001. - NOT USED

1.57 PARTNERING (PARAGRAPH APPLIES TO BOTH DESIGN AND CONSTRUCTION)

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 Corps of Engineers, the Army Reserves, the Contractor/Designer, and primary subcontractors. This partnership would strive to develop a cooperative management team drawing on the strengths of each team member in an effort to achieve a quality project within budget and on schedule. This partnership would be bilateral in membership and participation will be totally voluntary. The Contractor and Government shall be responsible for their own labor and travel costs. The Contractor/Designer shall supply a meeting room at a local hotel (size to hold 20 people). It is anticipated the room will be required four times during the contract period. (Start of design, Start of Construction, 6 months into Construction and one year into construction.) These meetings are in addition to the design meetings called out in Section 00150 "THE DESIGN/BUILD PROCESS" and Section 01021 "DESIGN SUBMISSION REQUIREMENTS AFTER AWARD"

The cost of the facilitator to chair the first meeting will be shared equally between the Government and the contractor/designer. The team will determine if any of the other meetings will require formal facilitation.

It is anticipated that the local representatives will meet weekly to discuss progress, problems, concerns, etc. These meeting will be held at the job site during the construction phase. Additional meeting (if any) during the design phase will be as agreed by the parties.

1.58 ACTIVITY ENVIRONMENTAL ANALYSIS

1 February 1995

Before starting any major phase of the work, an Activity Environmental Analysis shall be developed by the contractor and reviewed with the Government Representative. A major phase of the work is defined as an operation involving a type of work not previously experienced which presents possible sources of adverse environmental effects. This analysis will evaluate potential environmental consequences of the activity and the techniques which will be utilized to accomplish the work in an acceptable manner. This analysis includes: (1) the phase or activity of work; (2) the potential environmental consequences of the activity; (3) precautionary actions to prevent adverse environmental impacts; (4) actions in the event of an environmental incident; and (5) the appropriate reference to Federal, State, or Local standards, regulations, or laws.

1.59 CONSTRUCTION AND DEMOLITION (C&D) WASTE MANAGEMENT PLAN

16 July 1999

a. The Contractor is required to submit for government approval a detailed C&D Waste Management Plan within 30 days after contract award and prior to initiating any site clearance or C&D work.

b. Specific elements to be addressed in the plan are as follows:
Designated individuals on the contractor's staff who are responsible for C&D waste prevention and management.

(1) Actions that will be taken to reduce solid waste generation (including use of more efficient facility design and construction processes, reduced packaging and packing materials, supplier take-back programs, etc.). Description of the specific approaches to be used in recycling/reuse of the various materials generated, including, as appropriate, the specification of areas and equipment to be used for processing, sorting, and temporary storage of C&D wastes.

(2) Characterization of the waste to be generated during the C&D project, to include types and quantities of waste materials. The characterization should address site waste materials, building materials, packaging, packing, wastes generated by construction equipment, wastes generated by site offices, and wastes generated by the workforce on-site.

(3) Landfill and/or incinerator name, tipping fee amounts, projected cost of disposing of all trash and waste materials in the landfill/incinerator, as if there would be no salvage or recycling on the project.

(4) Identification of local and regional reuse programs, including non-profit organizations such as schools, local housing agencies, and public arts programs that accept used materials (e.g., Habitat For Humanity, national materials exchange networks).

(5) A list of specific waste materials that will be salvaged for resale, salvaged and reused, and recycled; the recycling facilities that will be utilized; and copies of their permits and/or registrations.

(6) Identification of materials that cannot be recycled/reused with a written justification. All disposed materials including anticipated hazardous wastes must include names of haulers and disposal sites, and copies of their permits and/or registrations.

(7) Anticipated net cost savings determined by subtracting contractor program management costs and the cost of salvage (deconstruction), separating, and recycling from the following:

- (1) revenue from the sale of salvaged products and materials;
- (2) revenue from the sale of recycled products and materials;
- (3) revenue from the return of materials; and
- (4) incineration and/or landfill tipping fees saved due to diversion of materials.

(8) The plan must cover the following materials if the material is applicable to the specific project.

Asphalt	Gypsum
Concrete	Plastic
Soil	Polystyrene
Metal	Porcelain
Wood	Corrugated cardboard
Brick	Carpet

c. Firms and facilities used by the contractor for recycling, reuse, and disposal shall be appropriately permitted for the contractor's intended use, to the extent required by federal, state, and local regulations. The

contractor shall maintain records of disposition of the materials, including all copies of manifests, origin, and disposal forms, and bills of lading. All facility, landfill, and hauler permits showing USEPA and state registration numbers shall be maintained and shall be available to the contracting officer when requested.

d. The Contracting Officer shall review the C&D waste management plan in coordination with the environmental office within 7 calendar days of submittal. Where the contracting officer determines that the contractor has diligently explored all feasible methods to reduce C&D waste, the plan shall be approved, or approved with comment. Where it is determined that the contractor has not diligently explored all feasible methods, the contracting officer shall request a resubmittal.

e. All revenues generated by reusing, returning, salvaging, or recycling materials, as well as costs avoided by reduced tipping and incineration fees as compared to conventional disposal shall accrue to the contractor's benefit and be reported to the Contracting Officer. Where an on-site Army C&D landfill is the only available disposal facility, the Contractor will be charged the prevailing commercial rate.

1.60 NOT USED

1.61 CONTINUING CONTRACTS (MAR 1995) EFARS 52.232-5001. - NOT USED

1.62 OBSTRUCTION OF NAVIGABLE WATERWAYS - NOT USED

1.63 SIGNAL LIGHTS - NOT USED

1.64 LAKE OPERATION - NOT USED

1.65 PROPOSED BETTERMENTS - AUG 1997

a. 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.

b. "Betterment" is defined as any component or system which exceeds the minimum requirements stated in the Request for Proposal. This includes all proposed betterments listed in accordance with Submittal Requirements of Section 00100 of the Proposal, and all Government identified betterments.

c. "Government identified betterments" include the betterments identified on the "List of Accepted Project Betterments" (see Paragraph 1.6 of Section 01010) prepared by the Proposal Evaluation Board and made a part of the contract by alteration, and all other betterments identified in the accepted Proposal after award.

1.66 SEQUENCE OF DESIGN/CONSTRUCTION

(a) The Contractor must submit for Government Approval a design Quality Control Plan in accordance with Section 01453, Paragraph 1.3 before design may proceed.

(b) After receipt of the Contract Notice to Proceed (NTP), the Contractor shall initiate design, comply with all design submission requirements as covered under Section 01021 Design Submission Requirements After Award, and obtain government review of each submission. No

construction may be start until the Government reviews the Final Design submission and determines it satisfactory for purposes of beginning construction. The ACO or COR 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 ACO or COR, the initial submission failed to meet the minimum quality requirements as set forth in the contract.

(c) 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.

(d) No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

1.67 NOT USED

1.68 KEY PERSONNEL, SUBCONTRACTORS AND OUTSIDE ASSOCIATES OR CONSULTANTS
17 August 1998

In connection with the services covered by this contract, any inhouse personnel, subcontractors, and outside associates or consultants will be limited to 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 inhouse personnel, subcontractors, associates, or consultants.

1.69 REQUIREMENTS FOR REGISTRATION OF DESIGNERS (APR 1984) FAR 52.236-25
25 February 1999

The design of architectural, structural, mechanical, electrical, civil, fire protection 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. All final drawings shall be signed and sealed by the registered professional responsible for the design.

1.70 DESIGN/BUILD CONTRACT - ORDER OF PRECEDENCE
17 August 1998

(a) The contract includes the standard contract clauses and schedules current at the time of contract award. It entails (1) the solicitation in its entirety, including all drawings, cuts, and illustrations, and any amendments, 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 way bears upon the terms of that agreement.

(b) In the event of conflict or inconsistency between any of the provisions of this contract, precedence shall be given in the following order:

(1) Betterments: Any portions of the accepted proposal which both conform to and exceed the provisions of the solicitation.

(2) The provisions of the solicitations. (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 with all provisions of the contract, in the order of precedence herein.

1.71 DESIGN CONFERENCES

17 August 1998

The requirements for design conferences are spelled out in Section 00150 "The Design Build Process" and Section 01021 "Design Submission Requirements after Award".

1.72 RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN (REV. MAY 2002)

(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) The standard of care for all design services performed under this agreement shall be the care and skill ordinarily used by members of the architectural or engineering professions practicing under similar conditions at the same time and locality. Notwithstanding the above, in the event that the contract specifies that portions of the Work be performed in accordance with a performance standard, the design services shall be performed so as to achieve such standards.

(c) 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 with applicable law for all damages to the Government caused by the Contractor's negligent performance of any of these services furnished under this contract.

(d) The rights and remedies of the Government provided for under this contract are in addition to any other rights and remedies provided by law.

(e) If the Contractor is comprised of more than one legal entity, each entity shall be jointly and severally liable hereunder.

1.73 WARRANTY OF DESIGN (FIRM-FIXED PRICE DESIGN-BUILD CONTRACT) (MAY 2002)

(a) The Contractor warrants that the design shall be performed in accordance with the Contract requirements. Design and design related construction not conforming to the Contract requirements shall be corrected at no additional cost to the Government. The standard of care for design is defined in paragraph (b) of Special Contract Requirement "RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN".

(b) The period of this warranty shall commence upon final completion and the Government's acceptance of the work, or in the case of the Government's beneficial occupancy of all or part of the work for its convenience, prior to final completion and acceptance, at the time of such occupancy.

(c) This design warranty shall be effective from the above event through the Statute of Limitations and Statute of Repose, as applicable to the state that the project is located in.

(d) The rights and remedies of the Government provided for under this clause are in addition to any other rights and remedies provided in this contract or by law.

1.74 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.

1.75 VALUE ENGINEERING AFTER AWARD (JUNE 1999)

(a) 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.

(b) 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.

(c) 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 fulfill 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.

(d) 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.

1.76 DEVIATING FROM THE ACCEPTED DESIGN (JUN 2002)

(a) The Contractor must obtain the approval of the Designer of Record and the Government's concurrence for any Contractor proposed revision to the professionally stamped and sealed and Government reviewed and concurred design, before proceeding with the revision.

(b) The Government reserves the right to non-concur with any revision to the design, which may impact furniture, furnishings, equipment selections or operations decisions that were made, based on the reviewed and concurred design.

(c) Any revision to the design, which deviates from the contract requirements (i.e., the RFP and the accepted proposal), will require a modification, pursuant to the Changes clause, in addition to Government concurrence. The Government reserves the right to disapprove such a revision.

(d) Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, which results in additional cost, shall strictly be at the Contractor's expense.

(e) The Contractor shall track all approved revisions to the reviewed and accepted design and shall incorporate them into the as-built design documentation, in accordance with agreed procedures. The Designer of Record shall document its professional concurrence on the as-builts for any revisions in the stamped and sealed drawings and specifications.

1.77 GOVERNMENT-FURNISHED RFP DRAWINGS, SURVEYS AND SPECIFICATIONS (JUL 2002)

This is to clarify that contract clause 252.236-7001, "Contract Drawings and Specifications", refers to any Government-furnished design or design criteria included in the Request for Proposal (RFP).

1.78 52.227-023 DRAWINGS AND OTHER DATA TO BECOME PROPERTY OF THE GOVERNMENT (DFARS, MAR 1979)

All designs, drawings, specifications, notes, and other works developed in the performance of this contract shall become the sole property of the Government and may be used on any other design without additional compensation to the Contractor. The Government shall be considered the "person for whom the work was prepared" for the purpose of authorship in a copyrightable work under 17 U.S.C. 201(b). With respect thereto, the Contractor agrees not to assert or authorize others to assert any rights or to establish any claim under the design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish all retained works at the request of the Contracting Officer. Unless otherwise provided in the contract, the Contractor shall have the right to retain copies of all works beyond such period.

1.79 POLLUTION PREVENTION PLAN

In accordance with the National Pollutant Discharge Elimination System (NPDES) Permit, a Pollution Prevention Plan (PPP) is required for this project. This plan shall be developed by the Contractor as part of the design process if this is a Design/Build contract or as a pre construction activity and must meet the erosion and sediment control requirements for the state of Kansas. The plan must identify the controls that will be used and include design, inspection, and maintenance information. A site plan with the existing and proposed grading shall be included, showing the controls being utilized. The permanent stabilization practices (permanent seeding, mulching, sodding, plants, erosion control blanket, riprap, etc.) should be shown on the final grading plan, with temporary controls (temporary gravel construction entrance/exit, silt fences, straw bales, temporary diversions, sediment basins or traps, etc.) shown on the existing grading plan. Use of straw bales alone is not considered an effective method of sediment control and should not be used. Prior to the start of construction, the Contractor shall submit the Pollution Prevention Plan to the Contracting Officer for review and approval. PPP must address compliance with all State laws regarding historic preservation and endangered species with State Letters attached. Along with the PPP submittal, the contractor shall provide a check made payable to the State of Kansas for the cost of the NPDES permit application. Once the PPP is approved by the Contracting Officer, the NOI will be prepared by the Corps of Engineers, utilizing information contained in the approved PPP. A Notice of Intent (NOI) will be forwarded to the State by the Corps of Engineers. Commencement/start of construction (ground disturbing activity) by the Contractor CANNOT start prior to the NPDES Permit and the letter of compliance being received. A copy of both the PPP and NPDES Permit must be kept at the construction site. (Also see Paragraph 6.4.5 of Section 01010 "Statement of Work".)

1.80 NOT USED**1.81 NOT USED****1.82 NOT USED****1.82 INADVERTENT DISCOVERY OF ARCHAEOLOGICAL DEPOSITS**

The attached file after 00800 shall be followed as part of this contract.

LEAVENWORTH, KANSAS
USARC/OMS/UHS

W912QR-04-R-0028

PART 2 PRODUCTS NOT USED

PART 3 EXECUTION NOT USED

-- End of Document --

SECTION 01020 – STATEMENT OF WORK

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PART 1

DESIGN OBJECTIVES AND FUNCTIONAL AREA REQUIREMENTS

1.1 SCOPE OF WORK.

1.1.1 The objective of this solicitation is to obtain a facility in which the Using Units are able to effectively implement their Army Reserve support and training missions. These activities require sufficient space with up-to-date furnishings and equipment to support the Units' full-time and Army Reserve personnel.

1.1.2 The facility will consist of one building and associated site improvements, complete and adequate for assignment as a United States Army Reserve Training Center. Design and construction shall meet or exceed the specifications and requirements contained in this Request for Proposal (RFP). The design and technical criteria contained and cited in this RFP establish minimum standards for design and construction quality. This project shall consist of the design and construction of a Training Center, complete with required utilities, storm drainage, communications, electric, heating/ventilation/air conditioning, fire protection/alarm systems, intrusion detection system, energy management and control system, force protection measures, paving, walks, curbs, parking, access roads, exterior lighting, site improvements, grading and landscaping, on Government-owned land at Leavenworth, Kansas. Contractor shall provide design for furniture and some equipment to be purchased and installed by the Government. Also included in the RFP are Options described in 1.9 below.

1.2 DESIGN OBJECTIVES.

1.2.1 **Applicable Criteria.** Applicable design and construction criteria references are listed in this Section 01020 and in the Outline Specifications. 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.

1.2.1.1 This RFP and its referenced documents define the necessary criteria to plan and design the Army Reserve Training facility. Functional space requirements, including general lighting, power, tempered air requirements, and finishes, are contained in the Design Guide for US Army Reserve (UFC 4-171-05). Typical functional space furniture layouts and inventories are provided in the design drawings; Contractor's designers shall adapt these to the final floor plans.

1.2.1.2 Where manufacturer or vendor names are called out, the intention is generally to provide guidance on desired quality and features for the system or material. Unless the manufacturer or vendor is identified as "sole-source," the Contractor may provide the equivalent or better system or material of another vendor or manufacturer.

1.2.1.3 The project shall be designed and constructed using English (inch-pound) units of measurement.

1.2.2 **Primary Consideration.** The primary consideration of this solicitation is to obtain a Training Center within funds available, and to maximize design quality. Offerors are encouraged to review the RFP to familiarize themselves with all RFP requirements.

1.2.3 **Design Quality.** Design quality is achieved through the optimization of interior planning, integration of the building(s) with the site, sustainability, selection of building materials and systems for low-cost maintenance and operation, and an overall balance of aesthetics and functionality. The Army Reserve encourages a project design of award-winning caliber.

1.2.4 **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.

1.2.4.1 The project conceptual design was developed by the Army Reserve, the Corps of Engineers, and a contracted A/E; this conceptual design is approved by the Government.

1.2.4.2 The conceptual design Drawings and the Outline Specifications, along with the other information in this RFP serve as requirements for Contractor building design and construction completion, along with other code, regulatory and professional practice requirements. The extent of development of these RFP documents in no way relieves the successful offeror from responsibility for completing the design, construction documentation, and construction of the facility in conformance with applicable criteria and codes.

1.2.4.3 The Contractor's designers shall develop and refine the conceptual site and building design in their completion of the construction documents. Such development shall be consistent with the criteria and acceptable to the Government.

1.2.4.4 The Contractor shall accommodate minor site and building plan changes by the Government in the early stages of the design process, as a normal part of the design development process. The Contractor may adjust spaces, within the overall and specific function area guidelines, as required to accommodate structural layout, and as necessary to provide adequate space for mechanical, electrical and communication spaces. The mechanical and electrical spaces must provide adequate space to safely and efficiently accommodate equipment operation and maintenance. The spatial relationships and adjacencies, however, must be maintained, unless the Contractor recommends changes to the Government, and the Government approves such changes.

1.2.4.5 The Contractor shall develop and refine the exterior image and esthetics of the building as part of the design development process. The basic materials for the exterior are noted in the RFP. The Contractor shall utilize materials, detailing, fenestration, lighting and ornament to develop a high-quality exterior image for the facility. The conceptual elevations in the RFP drawings are not acceptable as finish elevations.

1.2.4.6 The Contractor's architect or interior designer shall select the final palette of colors and materials for building interior and exterior, to produce a pleasing appearance, coordinated throughout.

1.2.4.7 All materials, fixtures, equipment, systems, etc. to be used in the construction of this project shall be new, and purchased for the purpose of constructing this facility.

1.2.5 **Installation Design Guidance – Not Used.**

1.2.6 **not used**

1.2.7 **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 this Section 01020.

1.2.7.1 Energy conservation techniques shall be considered as they relate to site design, site engineering, building design, and building engineering. Techniques which conserve energy, improve functionality, and can be justified by life cycle cost analysis as cost effective are encouraged. Integration of energy conservation systems with the building design (lighting, structure, mechanical systems, and aesthetics) is essential to facilitate functionality and maximum energy savings. If an alternative energy generation method is intended for use as the project's primary energy source, documentation shall be submitted to the Contracting Officer, verifying the system's reliability and ability to meet the project's peak demand.

1.2.8 **Sustainable Design.** Sustainable Design – is the Government's criteria for sustainable design. The project shall be designed and constructed in accordance with the ETL guidance. See Paragraph 14.1 of this section.

1.2.9 **Antiterrorism and Force Protection Considerations.** Project design and construction shall comply with the Department of Defense Anti-Terrorism (AT) Standards for Buildings, UFC 4-101-01, as listed in Part 2 of this section 01020. The conceptual site and building design has been developed in accordance with AT requirements. Design and construction shall comply with minimum AT/FP requirements. Contractor shall continue to coordinate design with the Government.

1.3 **CONTRACTOR RESPONSIBILITY.**

1.3.1 The Contractor is to provide all labor, materials, equipment, supplies, permits, fees, and consultant services to design and construct this Training Center complex. The complex shall be a complete and usable facility meeting the requirements of this RFP. The Contractor shall develop a complete site, building and interior design package.

1.3.2 Any discrepancies found in these RFP documents by the offeror shall be identified to the Louisville District Corps of Engineers before the submittal of the offeror's proposal. The Design/Build Contractor as Architect/Engineer of Record, is solely responsible for the design intent and the accuracy of the D/B Contractor's proposal and its compliance with all RFP requirements and all referenced codes and criteria. Design drawings provided in the Government-provided RFP package are to be considered

schematic in nature and are to be verified by the D/B Contractor as part of the development of the project design and construction documents.

1.3.3 The Contractor’s design professionals shall be the designers of record for the entire project; they must take full responsibility for the design and must satisfy themselves that the design meets professional and regulatory standards.

1.3.4 Throughout the documentation references are made to MCAR and OMAR funds. For clarification, this refers to the funding source – either Construction funds or Operations and Maintenance funds – for the Project. The funding source has no bearing on the Scope of the Work. See Attachment X, USAR OMAR Project Funding Requirements.

1.3.5 For purposes of clarification, this RFP identifies parts of the Project for which some responsibility is borne by the Government. The responsibility for some work items addressed elsewhere in the RFP is brought to the Contractor’s attention in the following table. This table is not intended to cover all parts of the Work.

Item	Design by	Furnish by	Install by	Utilities by	Final connect
Freestanding furniture	Cont	Govt	Govt		
Systems furniture	Cont	Govt	Govt	Cont	Cont
Office equipment, portable		Govt	Govt	Cont	
Office equipment, permanently installed		Govt	Govt	Cont	Cont
Workbenches	Cont	Govt	Govt	Cont	
Residential style refrigerators	Cont	Cont	Cont	Cont	
Residential style microwaves	Cont	Cont	Cont	Cont	
Bronze and alum “Minuteman” plaques	Cont	Govt	Cont		
Interior signage	Cont	Cont	Cont		
Exterior building mounted signage	Cont	Cont	Cont		
Exterior monument signage	Cont	Cont	Cont	Cont	Cont
Security caging	Cont	Cont	Cont		
Metal utility storage shelving	Cont	Cont	Cont		
Projection screens	Cont	Cont	Cont		
Bulletin and marker boards, tack strips	Cont	Cont	Cont		
Window treatments	Cont	Cont	Cont		
Physical Fitness equipment	Cont	Govt	Govt	Cont	
Vending machines		3 rd pty	3 rd pty	Cont	
Item	Design by	Furnish by	Install by	Utilities by	Final connect
Shop equipment, portable		Govt	Govt	Cont	
Shop equipment, permanently installed		Govt	Govt	Cont	Cont

Equipment racks in IT rooms	Govt	Cont	Cont		
Arms Vault dehumidifier	Cont	Cont	Cont	Cont	Cont
Arms Vault weapons racks	Govt	Govt	Govt		
Fire extinguishers	Cont	Cont	Cont		
Toilet specialties	Cont	Cont	Cont		
Recessed walk-off mats	Cont	Cont	Cont		
Secure Telephone instruments (STEs)		Govt	Govt	Cont	Cont
Telephone instruments	Cont	Cont	Cont	Cont	Cont

1.4 SURVEY AND GEOTECHNICAL INFORMATION.

1.4.1 A survey was performed by an independent A/E and is provided in these documents. The Contractor shall, at his own expense, obtain any additional information required to provide a complete and useable design. The point of contact for the survey is: David E. Johnson, PE, Bucher, Willis & Ratliff Corporation, 609 West North Street, Salina, KS, 67401-2064, phone (785) 827-3603

1.4.2 The Contractor shall perform its own geotechnical investigation to establish soil characteristics for site foundation, paving and cathodic protection design and construction. A preliminary geotechnical investigation has been performed by an independent A/E, and is provided for information only in Attachment A to this Section 01020.

1.5 **RFP DESIGN DOCUMENTS.** The following design drawings are included as a part of this RFP to provide information and criteria for the Contractor's completion of the design.

GENERAL REFERENCE

G0.0 COVER SHEET

CIVIL

- C1.1 SURVEY PLAN FEATURES AND INFORMATION
- C1.1.1 EXISTING TOPOGRAPHY
- C1.2 USARC BOUNDARY SURVEY
- C1.3 OVERALL SITE PLAN
- C1.3.1 SITE PLAN
- C1.4 SITE GRADING PLAN
- C1.6 SITE UTILITY PLAN

C1.7 SITE PAVING PLAN

LANDSCAPE

L1 LANDSCAPE PLAN

ARCHITECTURAL

- A1.1 TRAINING CENTER - FIRST FLOOR
- A1.2 TRAINING CENTER - SECOND FLOOR
- A1.3 MAINTENANCE BUILDING PLAN, ELEVATION & ROOF
- A1.4 UNHEATED STORAGE BUILDING PLAN, ELEVATION & ROOF
- A2.1 TRAINING CENTER - ROOF PLAN
- A3.1 TRAINING CENTER - ELEVATIONS
- A4.1 NOT USED
- A5.1 MISC. DETAILS
- A5.2 SAMPLE VAULT DETAILS

FURNITURE

- F1.1 TRAINING CENTER - FURNITURE PLAN - FIRST FLOOR
- F1.2 TRAINING CENTER - FURNITURE PLAN - SECOND FLOOR
- F2.1 FURNITURE TYPICALS

1.6 **SPECIFICATIONS.**

1.6.1 The Technical Specifications Divisions 2 through 16 are provided primarily in outline format. They shall be utilized as design and submittal criteria, and minimum standards for the corresponding construction work, and shall be met or exceeded unless Contractor obtains specific Government approval for proposed reductions. These outline specifications shall not be considered complete and suitable for final construction specifications. Contractor's designers shall expand the outline specifications to provide comprehensive, three-part, CSI-format Specifications and shall edit the Specifications to indicate actual products to be used in the construction. Final specifications shall include as a minimum, a description of the technical requirements, criteria for determining whether the criteria are met, and quality control requirements and procedures. The standards referenced in the outline specification establish minimum requirements for the final construction specifications.

1.6.2 All specification sections provided may not be used, and designers shall provide additional Specification Sections or items if necessitated by their final design or RFP requirements.

1.6.3 Where Technical Specification Sections are more complete, these represent the Government's preferred specification approach to this project. Contractor's designers shall take complete responsibility for the design and specification of the project, and shall satisfy themselves that these Sections are complete and suitable for the final design. Most of the outline specification sections are adapted from the typical Government Unified Facility Guides Specifications (UFGS) and reflect Army Reserve-approved approaches and products. The outline specification requirements shall be used as the basis for selection of construction materials, products, and systems. Contractor's final specifications may be developed from UFGS, one of the industry

prototype specifications (such as MasterSpec), or Contractor's designers' company spec system.

1.6.4 **Exceptions.** Some items required to be provided are not in the specifications furnished, and some items in the specifications are not required to be furnished. A partial list of items that have been identified as such

1.6.4.1 There is no commercial Food Service Equipment (Section 11400) in the scope of work.

1.6.4.2 Athletic flooring for the Physical Training room shall be a manufacturers product designed specifically for the purpose and be one quarter inch (1/4 in) thick, cushioned and have a water proof finish suitable to be wet mopped.

1.6.4.3 The traffic barrier arm devices shall be a product manufactured specifically for the purpose and shall be capable of interfacing with the necessary electronic security system actuator.

1.6.4.4 There is no Crane or Hoist (Section 14600) in the scope of work

1.6.4.5 Tack surface applied to walls shall be a manufactured product designed for the purpose approximately three sixteenths (3/16) inch thick, rubberized and shall be self healing. Tack surface shall have a finish edge trim.

1.6.4.6 Ref Section 10605, Wire Mesh Partitions. Peen or weld fasteners to discourage disassembly allowing unauthorized access.

1.7 **SITE.** The site is described on the RFP drawings included as part of this solicitation, and consists of approximately 24 acres. 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, signage, site lighting, landscaping, physical security measures, fencing, and site furnishings.

1.7.1 **Special Utilities and Supplementary Construction.** Off-site extension of the City sanitary sewer is a part of this project. See Parts 2 and 3 of this Statement of Work, and the RFP drawings for additional information.

1.7.2 **Demolition Considerations and Requirements.** Only clearing and grubbing is anticipated at this site.

1.7.3 **Environmental Considerations and Mitigation Requirements.** No hazardous materials or protected wildlife have been identified at this site. Should any hazardous materials be encountered during site investigations or construction, the Contractor shall immediately stop work in the affected area, notify the Contracting Officer, and await Contracting Officer's direction before proceeding with additional work in the area.

1.7.3.1 The site has been identified as being in an area where average indoor radon concentration is moderately likely to exceed the EPA action level of 4 picoCuries per

liter. The Contractor shall incorporate Passive Barriers, plus the underfloor and vent stack provisions for a Sub-slab Suction System with a Passive Suction Stack into the design and construction of the building. At the completion of construction, and prior to occupancy, the Contractor shall perform radon testing to verify indoor radon concentration. If the testing shows level above the EPA action level, the Contractor shall install the fan required to create an Active Suction Stack. Design and construction shall comply with the requirements of UFC 3-490-04A, Design: Indoor Radon Prevention and Mitigation. The facility is a priority 3 facility under the guidelines of the UFC.

1.7.4 Site Development Constraints.

1.7.4.1 Extension of the sanitary sewer to serve the project will require coordination with and concurrence by the City of Leavenworth.

1.7.4.2 Location of drives connecting to public streets must meet requirements of the City of Leavenworth.

1.7.5 **Contractor's Use of the Site.** Except for utility service provider access, required coordination with local agencies, and observation and oversight by the Government, the Contractor shall have complete use of the site within final limits of construction to be recommended by the Contractor and approved by the Government.

1.7.6 **Verification of Conditions.** The Contractor shall field verify existing conditions prior to beginning work. The Contractor and the designers of record shall be responsible for investigating all differing site conditions, discrepancies, and field related issues that are encountered during the design and construction process. The designers of record shall be responsible for providing guidance to the Contractor for the resolution of all such issues. The Contractor shall provide notice to the Government of any such issues prior to proceeding and with sufficient time to avoid cost or schedule impacts.

1.7.7 **Verification of Utilities.** The Contractor and the designers of record shall be responsible for verifying the condition, location, and capacity for all utilities necessary for the project. The Contractor and designers of record shall further verify that all utilities will meet the requirements of this project. The contractor shall obtain flow tests for water service for the project, and shall base the design of the domestic water and fire protection systems on the results of the tests.

1.7.8 **Regulatory Compliance.** The Contractor shall assure that the site development complies with all applicable local, State and Federal regulations. A list of known regulations is located in Part 2 of this Section 01020. Timely acquisition of the necessary design and construction related permits shall be the responsibility of the contractor. The Contractor, upon notice to proceed, shall immediately begin working on the permits so as not to delay completion of the project. The contractor shall prepare permits, associated drawings, public notices, and other related documentation as necessary to successfully meet permit approval status. The contractor shall pay for associated permit fees.

1.8 FUNCTIONAL AND AREA REQUIREMENTS.

1.8.1 Required building floor areas are listed in Attachment K. Compliance with the “Approved” “Total Gross Building Areas” is a minimum requirement. Compliance with “Adjusted” and “Placed” Functional areas is substantially required. The calculation of gross building areas shall be governed by AIA document D101, Architectural Area and Volume of Buildings, 1995 edition. The composition of the Total Gross “Approved” area is furnished for information only. The areas shown in the table in Attachment K are aggregate areas; areas for individual spaces are shown in the “Size” column of the table in Paragraph 1.8.1 and are provided as a guideline. It is acceptable for the actual area of any space to vary from the values in the table by plus or minus 10%, except for the assembly hall, which cannot be larger than authorized.

1.8.1.1 Definitions: For the purposes of this section, “net area” means actual floor area exclusive of walls and building structure, “structural area” is the area occupied by walls and building structure.

1.8.2 Project requirements not covered by the Design Guide for individual areas or rooms are described in the following table.

Room by Room Supplemental Requirements				
Rm#	Room Name	Design Guide Reference	Target size	Additional requirements

Training Building				
101	Recruiting/Retention	DG 4.2.4		
102	Family Support	DG 4.2.5		Bar size refrigerator
103	Elevator Mechanical	No DG Requirements		Interior finishes similar to DG 4.2.26
104	Admin. Common	DG 4.2.3		
104A	Office	DG 4.2.2	120 SF	
104B	Office	DG 4.2.2	120 SF	
104C	Office	DG 4.2.2	120 SF	fax
104D	Office	DG 4.2.2	120 SF	
104E	Office	DG 4.2.2	120 SF	
104F	Admin. Support	DG 4.6.2	100 SF	Copier.
105	Break	DG 4.2.43		1 tack board Minimum 2'x7' cabinet/countertop w/sink. Refrigerator and microwave.
106	Unit Storage	DG 4.2.20		Perimeter walls CMU Electronic access control for door 106-B
106A	Facility Maintenance Storage	DG 4.2.26		
106B	Armorer	DG 4.2.12		Door 106B-A: 42" dutch door with ledge. 2 workbenches & 2 storage cabinets
106C	Arms Vault	DG 4.2.11		Day gate to be full height of opening and have a pass through for arms distribution.
106D	Mail	DG 4.2.6.1		Work surfaces Door 106D-B is Dutch door with ledge
106E	Screening	DG 4.2.6.1		Perimeter walls reinforced CMU Exterior door designed for blast relief See attachment L

*** SAFETY PAYS ***

USARC/OMS/UHS
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AMENDMENT No 2

106F	Staging	DG 4.2.2.1	Contact switch to open traffic barrier gate at end of service drive
106G	Mechanical	DG 4.2.44	Wall STC at occupied rooms: 51
106H	Network Operations Center	DG 4.2.6.3	
106J	Electrical	DG 4.2.45	
107	Library Storage	DG 4.2.15	
108	Classroom	DG 4.2.13	Operable partition
109	Library	DG 4.2.14	
110	Classroom	DG 4.2.13	
111	Physical Readiness	DG 4.2.36	See Appendix M, section 01020 2 upright bikes 2 treadmills 2 elliptical machines 2 five station multi-gyms 2 dumbbell racks w/ dumbbells 2 incline benches 2 flat benches
112	Classroom	DG 4.2.13	
113	Learning Center	DG 4.2.16	
114	Chair Storage	DG 4.2.9	
115	Training Aids Storage	DG 4.2.17	
116	Assembly	DG 4.2.8	Perimeter walls CMU
117	Janitor	DG 4.2.23	
150	Vestibule	DG 4.2.7	Electronic access control system for door 151-A House phone Recessed walk-off mat between doors Quarry tile floor Furnish Knox box outside for fire department access
151	Lobby	DG 4.2.7	1 (6' x 4') recessed trophy case 1 building directory 1 enclosed bulletin board Quarry tile floor Minuteman plaque
152	Corridor	DG 4.2.47	
153	Corridor	DG 4.2.47	
154	Corridor	DG 4.2.47	Electronic access control system for door 154-A. Recessed walk-off mat at door 154-A, min. of 6'-0" in path of travel.
155	Corridor	DG 4.2.47	
156	Vending	DG 4.2.42	
160	Stair	DG 4.2.47	Use Rubber Stair tread with Rubber flooring at landings.
161	Stair	DG 4.2.47	Decorative custom guardrail and handrail Quarry tile steps Stairs designed for architectural interest
162	Elevator	DG 4.2.47	
163	Stair	DG 4.2.47	Use Rubber Stair tread with Rubber flooring at landings.

*** SAFETY PAYS ***

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Leavenworth KS

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AMENDMENT No 2

170	Mens Toilet	DG 4.2.39		3 water closets and partitions 2 urinals 3 lavatories in solid surface vanity top vestibule
171	Mens Shower/Locker	DG 4.2.39/ DG 4.3.41		60 half height lockers, 12" x 18" and benches 7 shower stalls Provide coat rod & hat shelf within Locker Room.
172	Women's Toilet	DG 4.2.39		3 water closets and partitions 2 lavatories in solid surface vanity top vestibule
173	Women's Shower/Locker	DG 4.2.39/ DG 4.3.41		Furnish with 40 half height lockers, 12" x 18" and benches 4 shower stalls Provide coat rod & hat shelf within Locker Room.
201	Admin Common	DG 4.2.3		
201A	Office, S3	DG 4.2.2	120 SF	fax
201B	Office, CSM	DG 4.2.2	120 SF	
201C	Office, BN CDR	DG 4.2.2	200 SF	Rank: LTC, O5
201D	Office, XO	DG 4.2.2	150 SF	Rank: MAJ, O4
201E	Office, DET CDR	DG 4.2.2	120 SF	
201F	Office, 1ST SGT	DG 4.2.2	120 SF	
202	Admin Support	DG 4.2.6.2		Copier. Fax Front loading mail delivery center w/ 20 front loading standard boxes
203A	IT Closet	DG 4.2.6.3		
203B	Electrical	DG 4.2.45		
203C	Janitor	DG 4.2.23		
204	Admin Common	DG 4.2.3		Furnish a 10' x 6' rubberize cork tack surface on a wall in each Team area
204A	Office	DG 4.2.2	120 SF	fax
204B	Office	DG 4.2.2	120 SF	
204C	Office	DG 4.2.2	200 SF	
204D	Office	DG 4.2.2	200 SF	fax
204E	Office	DG 4.2.2	120 SF	fax
204F	Office	DG 4.2.2	120 SF	
204G	Office	DG 4.2.2	120 SF	fax
204H	Office	DG 4.2.2	120 SF	
205	Admin Common	DG 4.2.3	200 SF	Furnish a 10' x 6' rubberize cork tack surface on a wall in each Team area
205A	Office	DG 4.2.2	200 SF	fax
205B	Office	DG 4.2.2	200 SF	
205C	Office	DG 4.2.2	200 SF	
205D	Office	DG 4.2.2	200 SF	fax
205E	Office	DG 4.2.2	200 SF	
205F	Office	DG 4.2.2	120 SF	fax
205G	Office	DG 4.2.2	200 SF	
205H	Office	DG 4.2.2	200 SF	fax
205J	Office	DG 4.2.2	120 SF	
206	Mechanical	DG 4.2.44		Wall STC of 51.

*** SAFETY PAYS ***

USARC/OMS/UHS
Leavenworth KS

W912QR-04-R-0028

AMENDMENT No 2

250	Corridor	DG 4.2.47		Upgraded finishes, carpet flooring. Guardrail designed with stair rail as architectural feature. Enclosed bulletin board
252	Hall	DG 4.2.47		
260	Stair	DG 4.2.47		Use Rubber Stair tread with Rubber flooring on landings.
261	Stair	DG 4.2.47		Same as Stair 161
262	Elevator	DG 4.2.47		
263	Stair	DG 4.2.47		Use Rubber Stair tread with Rubber flooring on landings.
270	Women's Toilet	DG 4.2.39		3 water closets and partitions 2 lavatories in solid surface vanity top
271	Men's Toilet	DG 4.2.39		3 water closets and partitions 2 urinals 3 lavatories in solid surface vanity top

OMS Building				
300	Maintenance Bay	DG 4.3.9		Provide clerestory windows along rear wall, "Half-moon" handwash facility, electric drink fountain, drench shower, and emergency eyewash
300A	Equipment Alcove	DG 4.3.5		
300B	Storage	DG 4.3.4		
300C	Tool & Parts	DG 4.3.3		Dutch door in caging
301	Controlled Waste	DG 4.3.8		12" deep containment well 4'-0" wide door
302	Mechanical/Electrical	DG 4.3.10		Adjust size as necessary to accommodate equipment, reducing the area of the toilets while still maintaining adequate area in the toilets
303	Men's Toilet/Locker	DG 4.2.39		1 water closet 1 urinal 1 lavatory 4 full height lockers vestibule
304	Women's Toilet/Locker	DG 4.2.39		1 water closet 1 lavatory 2 full height lockers vestibule
305	Flammable Storage	DG 4.3.7		12" deep containment well
306	IT Closet	DG 4.3.11		
307	Office	DG 4.3.1		View lite to maintenance workbay

Unheated Storage Building				
400A	Unheated Storage	DG 4.4		Pallet storage rack system and metal shelving Overhead coiling door
400B	Unheated Storage	DG 4.4		Metal shelving 6'-0" paired door

1.8.3 Individual spaces shall meet the functional and environmental requirements based on UFC 4-171-05 paragraph listed in the table above, as well as any applicable

code requirements. Requirements in addition to those stated in the UFC are noted in the Remarks column.

1.9 BASE PROPOSAL, OPTIONS, AND BETTERMENTS.

1.9.1 **Base Proposal.** All the Work described in the RFP (including drawings) and not including the Work of Options A, B, C, D, and E. Site plans show Work with all Options included. If some or all Options are not exercised, Contractor shall adjust site design and construction accordingly, following good engineering practice and requirements of the RFP. Direct drainage away from facility and POV, and hold slopes to a maximum of one vertical in three horizontal to allow normal maintenance practices. If necessary, provide retaining walls.

1.9.2 **Options.** The Government has identified Option Items that they wish included in the project if available funds allow. The Option Items are identified in the RFP, listed individually on the Proposal Schedule, and described below.

1.9.2.1 **Option A -- Military Equipment Parking (MEP):** Add, as described in the RFP, the MEP asphalt paving area, its associated fencing and gates, curb cut and entrance drive from Metropolitan Ave, area lighting served from a lighting distribution panel in the Training Building, earthwork including retaining wall, drainage, landscaping, aggregate perimeter shoulder, and concrete walkway from POV parking area to MEP lot.

1.9.2.2 **Option B -- Organization Maintenance Shop (OMS):** Add, as described in the RFP, the OMS building and its associated utility provisions (oil/water separator sized to also accommodate the Washrack, domestic water service, electrical and telecommunication service, fire protection water service, natural gas service, and sanitary sewer service), concrete stoop and concrete apron. Provide electric service to MEP area lighting from OMS building in lieu of Training Building. Contractor Furnished, Contractor Installed OMAR funded Work described in Scope of Work, Section 01020, par 1.3.4 associated with the OMS is not included in this Option, but is included in Option F.

1.9.2.3 **Option C -- Washrack:** Add, as described in the RFP, the covered washrack and its associated utility provisions (domestic water service from OMS, electric service from OMS, and sanitary sewer connected to OMS oil/water separator) and concrete paving.

1.9.2.4 **Option D -- Unheated Storage Building (UHS):** Add, as described in the RFP, the Unheated Storage Building and its associated utility provisions (electric and telecommunication service from OMS), concrete loading area, and building specialties. Contractor Furnished, Contractor Installed OMAR funded Work described in Scope of Work, Section 01020, par 1.3.4 associated with the UHS is not included in this Option, but is included in Option G.

1.9.2.5 **Option E -- Overstory Trees:** Add, as described in the RFP, the larger overstory trees indicated on sheet L-1.

1.9.2.6 **Option F – OMAR funded items for OMS:** Add, as described in the RFP, Contractor Furnished, Contractor Installed OMAR funded Work described in Scope of Work, Section 01020, par 1.3.4 associated with the Organizational Maintenance Shop.

1.9.2.7 **Option G – OMAR funded items for UHS:** Add, as described in the RFP, Contractor Furnished, Contractor Installed OMAR funded Work described in Scope of Work, Section 01020, par 1.3.4 associated with the Unheated Storage Building.

1.9.3 **Betterments.** Betterments are features, materials or systems that exceed the requirements of this RFP. The Contractor is encouraged to provide betterments to the design, while staying within the Project cost limitations. Such betterments may be Contractor suggested, or respond to Government desires listed below. The offeror shall provide sufficient information with his proposal on proposed betterments for the Government to determine quality and quantity. **Betterments are listed in decreasing order of importance.**

2*

~~1.9.3.1 — **Betterment B1 – Curved Training Center:** In lieu of configuring training center as two rectangular building wings converging against a central third rectangular building element, configure floor plan similarly but with building wings forming arcs of approximate outside radius of 190' converging against the central rectangular building element.~~

~~1.9.3.2 — **Betterment B2 – Pavilion:** Provide a free standing open air pavilion compatible with and complementary to the design of the Training Center of 400-sf with paved floor, a walkway to the Training Center, lighting and power outlets, and movable benches suitable for use as a place to cook on an outdoor grill.~~

~~1.9.3.3 — **Betterment B3 – Exercise Track:** Provide a 1320 ft running/walking track at the perimeter of the site in the area the Training Center of granular running surface or asphalt paving.~~

~~1.9.3.4 — **Betterment B4 – Extended Equipment Warranty:** Provide extended warranty period for major mechanical equipment.~~

~~1.9.3.5 — **Betterment B5 – Extended Roof Warranty:** Provide extended warranty period for roof to 20 years.~~

~~1.9.3.6 — **Betterment B6 – Dock Leveler:** Provide a dock leveler at the loading dock to the Unit Storage.~~

~~1.9.3.7 — **Betterment B7 – Dock Roof:** Provide an overhanging roof for the loading dock to the Unit Storage room.~~

1.9.3.1 **Betterment B1 – Extended Roof Warranty:** Provide extended warranty period for roof to 20 years.

1.9.3.2 **Betterment B2 – Extended Equipment Warranty:** Provide extended warranty period for major mechanical equipment.

1.9.3.3 **Betterment B3 – Exercise Track:** Provide a 1320 ft two lane (8 ft wide) running/walking track at the perimeter of the site in the area the Training Center of granular running surface or rubberized asphalt running surface.

1.9.3.4 **Betterment B4 – Dock Roof:** Provide an overhanging roof for the loading dock to the Unit Storage room.

1.9.3.5 **Betterment B5 – Pavilion:** Provide a free standing open air pavilion compatible with and complementary to the design of the Training Center of 400 sf with paved floor, a walkway to the Training Center, lighting and power outlets, and movable benches suitable for use as a place to cook on an outdoor grill.

1.9.3.6 **Betterment B6 – Dock Leveler:** Provide a dock leveler at the loading dock to the Unit Storage.

*2

1.10 **USER BACKGROUND INFORMATION.**

1.10.1 This Facility will serve as a Training Center and Organizational Maintenance Shop for the 3/382 Logistics Support Battalion, Detachment 2, the 2/383 Third Brigade, Active Component, and the 2/383 AUG Battalion, Combat Support – Field Engineering. These units are all administrative requiring desks and offices. The mission for both Active Component and Reserve Component is mobilization. Approximately 177 reservists will work and train in this facility.

1.10.2 Planning only for training will be done at the facility. Training will be done in the field. Unit storage is for tents, field gear, and organizational clothing and individual equipment.

1.10.3 The AR units are currently housed in outdated structures on the Fort Leavenworth installation.

1.10.3 There will be approximately 21 people working in the building on a full-time basis Monday through Friday, and the largest drill weekend will have approximately 177 reservists using the facility.

1.11 **CAD REQUIREMENTS.** Design documents shall be produced using AutoCAD software, version 2000 or newer. Translation will not be permitted.

PART 2

CRITERIA AND COORDINATION WITH LOCAL AUTHORITIES

2.1 **APPLICABLE CRITERIA.** Applicable design and construction criteria references are listed in this Section 01020 and in the Specifications of this RFP. Criteria shall be taken from the most current references as of the date of issue of the RFP. However, following contract award, Contractor shall bring updates to the attention of the Contracting Officer. Referenced codes and standards are minimum acceptable criteria. Administrative, contractual, and procedural features of the contract shall be as described in other sections of the RFP. Sources for criteria documents are listed in paragraph 2.6.

2.1.1 In order for a facility to be occupied by Department of Defense personnel, the design and construction must meet specific requirements. The Government's primary guidance on building codes, fire protection and life safety are UFC 1-200-01, Design – General Building Requirements and UFC 3-600-01, Design - Fire Protection Engineering for Facilities. Design and construction of AR real property improvements shall comply with UFC 1-200-01, and shall comply with the specific applicable requirements of IBC, NFPA 101, and other commercial codes and standards that are referenced in UFC 1-200-01. The Contractor shall complete a Fire Protection/Life Safety Code Submittal for the project to demonstrate compliance. See Attachment J to this Section 01020 for Government format.

2.1.2 Design and construction of AR real property improvements shall also comply with the requirements of this document and with the current edition of the industry and Federal Government standards listed in this RFP. Where UFC 1-200-01 or any other Federal Government standard refers to other Federal Government standards not listed in this RFP, the standards not listed in this RFP do not apply. Use of the Unified Facility Guide Specifications (UFGS) is not required.

2.1.3 Some State and local code and regulatory agencies may not have jurisdiction over Federal Government construction on Federal property. However, the AR wishes to comply with State and local codes and regulations, and the Contractor remains responsible for such compliance. Therefore, design and construction of AR real property improvements shall also comply with all current and applicable State and local codes, and with all other applicable laws and regulations governing development, design and construction at the site. If certain of such requirements appear particularly onerous, or hamper AR-required functionality of the project, the Contractor may recommend the Government waive the requirement or implement a lesser requirement. The Government's approval of such recommendations is not assured.

2.1.4 Where any of the applicable requirements conflict, the most stringent shall govern. In no case shall building code, fire protection and life safety requirements be reduced below those required in UFC 1-200-01, 3-600-01, and this RFP.

2.1.5 The requirements of the International Mechanical Code (IMC) shall apply except as follows. Where conflicts exist between the IMC and the requirements of this

document, this document shall govern. Where the IMC references the ICC Electrical Code, the NEC National Electrical Code shall be the applicable code. Where the IMC references the International Gas Code, the NFPA 54 National Fuel Gas Code shall be the applicable code. Where the IMC references the International Fire Code, the National Fire Codes published by the National Fire Protection Association (NFPA) shall be the applicable code. Where the IMC references the International Energy Code, the ASHRAE Standard 90.1 Energy Standard for Buildings – Except Low Rise Residential Buildings shall be the applicable reference.

2.1.6 The primary criteria and guidance for detailed design of Army Reserve Training Centers is Design Guide (DG) UFC 4-171-05 “Design Guide for U.S. Army Reserve Facilities.” The Contractor shall follow the guidance of the DG in developing the project design, unless this RFP directs otherwise. When the DG references Government criteria documents not referenced in this RFP, those criteria do not apply to this project.

2.1.7 Accessibility – Design and construction must comply with ADA-AG and UFAS, whichever is most stringent. The only exception to this requirement is that OMS toilets are not required to comply with ADA.

2.2 **LOCAL AND STATE CODES OR STANDARDS.** The following specifications, codes, standards, bulletins and handbooks form a part of this RFP. The applicable editions are those current as of the date of issue of the RFP.

2.2.1 **Local.**

City of Leavenworth, Kansas:

- Standard Specifications for Sewer Line Construction, Standard Specification #21749

2.2.2 **State.**

Kansas Department of Health and Environment (KDHE), Division of Environment:

- Policies, General Considerations, and Design Requirements for Public Works Supply Systems in Kansas
- Minimum Standards of Design for Water Pollution Control Facilities

Kansas Department of Transportation:

- Kansas Department of Transportation Standard Specifications

Kansas State Elevator Code

2.2.3 **National.**

IBC – International Building Code

IPC – International Plumbing Code

IMC – International Mechanical Code

2.3 **FEDERAL LAWS.** The Federal laws and regulations listed below form a part of this RFP. They are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401-9325; (202)-512-1800.

10 CFR 435	Voluntary Performance Standards for New Commercial and Multi-Family High Rise Residential Buildings; Mandatory for Federal Buildings
42 USC 4321-4361	National Environmental Policy Act (NEPA)
Executive Order 12902	
Executive Order 13123	Energy Efficiency and Water Conservation in Federal Facilities
Public Law 102-486	

2.4 **OTHER GOVERNMENT DOCUMENTS AND PUBLICATIONS.** The following publications form a part of this document to the extent referenced. The applicable editions are those current as of the date of issue of the RFP.

ADA-AG	The Accessibility Guidelines of the Americans with Disabilities Act
AR 190-51	Security of Unclassified Army Property
AR 190-11	Physical Security of Weapons, Ammunition and Explosives
ETL 1110-3-491	Sustainable Design for Military Facilities
MIL HDBK 1012/3	Telecommunications Premises Distribution
TM 5-822-2	General Provisions and Geometric Design for Roads, Streets, Walks and Open 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
UFC 4-171-05	Design Guide for US Army Reserve Facilities
UFC 1-200-01	Design: General Building Requirements
UFC 3-400-01	Design: Energy Conservation
UFC 3-400-02	Engineering Weather Data
UFC 3-490-04A	Design: Indoor Radon Prevention and Mitigation
UFC 3-600-1	Design: Fire Protection Engineering for Facilities
UFC 4-010-01	Design: Minimum Antiterrorism Standards for Buildings
UFC 4-021-01	Design and O&M: Mass Notification Systems
UFAS	Uniform Federal Accessibility Standards
(no designation)	USAR CIO Information Technology Requirements for Military Construction Army Reserve
(no designation)	USAR Design Process and Submittal Requirements
(no designation)	Joint Service Oil/Water Separator Guidance Document", available as Army Environment Center document SFIM-AEC-EQ-CR-200010

2.5 **NON-GOVERNMENT PUBLICATIONS.** The following publications form a part of this document to the extent referenced. The applicable editions are those current as of the date of issue of the RFP.

ACI 318	American Concrete Institute Building Code Requirements for Reinforced Concrete
AISC Steel Design Guide #11,	Floor Vibrations due to Human Activity
ANSI C2	National Electrical Safety Code
ASCE 7-95	Minimum Design Loads for Buildings
ASHRAE Std 62	Ventilation for Acceptable Indoor Air Quality
ASHRAE Std 90.1	Energy Standard for Buildings – Except Low-Rise Residential
EIA/TIA 568-B	Commercial Building Telecommunications Cabling Standards
EIA/TIA 569-A	Commercial Building Standard for Telecommunications Pathways and Spaces
IES (Illuminating Engineering Society) Lighting Handbook	
SJI Tech Digest #5	Vibration of Steel-Joist Concrete Slab Floors
NCMA	Design Manual for Segmental Retaining walls
NFPA 13	Installation of Sprinkler Systems
NFPA 20	Installation of Stationary Pumps
NFPA 54	National Fuel Gas Code
NFPA 70	National Electrical Code
NFPA 72	National Fire Alarm Code
NFPA 88B	Standard for Repair Garages
NFPA 90A	Installation of Air Conditioning and Ventilating Systems
NFPA 96	Ventilation Control and Fire Protection of Commercial Cooking
NFPA 101	Life Safety Code (as directed in UFC 3-600-1)
NFPA 780	Lightning Protection Systems
(no designation)	Recommended Standards for Wastewater Facilities

2.6 SOURCES FOR GOVERNMENT PUBLICATIONS.

2.6.1 AR (Army Regulations) may be found at http://www.usapa.army.mil/USAPA_PUB_search_P.asp.

2.6.2 ETL (Engineering Technical Letter), MIL HDBK (Military Handbook), TM (Technical Manual), UFC (Unified Facility Criteria) and UFGS (Unified Facility Guide Specifications) may be found at <http://www.hnd.usace.army.mil/techinfo/index.asp>.

2.6.3 ADA-AG is available from U.S. Architectural and Transportation Barriers Compliance Board, 1331 F Street, N.W., Washington, D.C. 20004-1111

2.6.4 The USAR Design Process and Submittal Requirements may be found at http://bc.cecer.army.mil/mds/DL/Final_MDSSub_Requirements.doc

2.7 PERMITS AND COORDINATION WITH LOCAL AUTHORITIES.

2.7.1 **General.** The Contractor is responsible for making all applications and obtaining required municipal and regulatory agency coordination, reviews, permits, inspections and approvals, and is responsible for payment of any associated fees or charges. Contractor shall not contact agencies and individuals listed below during the preparation of his proposal, unless noted otherwise. If Government information, signatures, names or addresses are required for applications, approvals or permits, the Contractor is responsible for obtaining same. This is a Federal Government project, therefore some reviews, permits, inspections and approvals are not required. The Contractor is responsible for identifying such requirements for a commercial project and verifying with the Government which of these will be waived. Permit requirements which have been identified are listed below. This list is not all-inclusive, and Contractor is responsible for verifying that information below remains accurate.

2.7.2 **Jurisdiction.** By Federal and Kansas State law, most State and local governmental agencies do not have jurisdiction over Federal construction on Federal land. It is the intention of the Army Reserve to be a “good neighbor” to the State and local governmental agencies, and to comply with applicable State and local codes and regulations. The Contractor is required to comply with local codes and regulations, as noted in Section 2.1.3. The Contractor shall strive to keep local governmental agencies informed of the design and construction progress of the project.

2.7.2.1 The City of Leavenworth does not have jurisdiction over this Federal Government site, but does have jurisdiction over streets and utilities serving the site. The City has outlined its requirements for permitting, coordination, design and construction in a letter to the RFP preparers, attached to this Statement of Work as Attachment N. The Contractor is responsible for compliance with City requirements noted below and in Attachment V

2.7.3 Streets, Rights of Way, and Street Access

2.7.3.1 Point of contact (POC) is Michael McDonald, P.E., Director of Public Works and City Engineer, City of Leavenworth, KS, 66048; 913-684-0375; fax 913-662-1521; mmcdonald@firstcity.org.

2.7.3.2 McDonald has reviewed preliminary plans for Army Reserve (AR) driveway access to Metropolitan Avenue, and is in basic agreement with the current site plan. Contractor shall continue to coordinate driveway design and subsequent construction with City.

2.7.3.3 There will be no separate driveway permit required; driveway locations will be reviewed as part of the site plan review – see 2.7.5.3.

2.7.3.4 Contractor shall assume that no widening or turn lanes for Metropolitan Avenue will be required as a part of this project. Should such design and construction later be required, it will be treated as a changed condition.

2.7.4 Planning and Zoning.

2.7.4.1 POC is Gary Ortiz, City Manager, 913-682-4232. Ortiz has confirmed that the City has no planning and zoning jurisdiction over the Federal site.

2.7.5 Storm Drainage, and Soil and Water Conservation.

2.7.5.1 Service provider is City of Leavenworth. POC is Michael McDonald, Director of Public Works and City Engineer; see paragraph 2.7.3.1 for contact information.

2.7.5.2 McDonald has reviewed preliminary plans for Army Reserve (AR) site development and is in basic agreement with the current RFP site layout. Contractor shall continue to coordinate storm drainage design and subsequent construction with City.

2.7.5.3 The City is requiring a site plan/grading/excavation review, with permit fees determined based on excavation. See Attachments S and T for excavation permit and fee schedule. Also see Attachment N, February 5, 2004 letter from the City of Leavenworth, Item No 4, first subitem regarding site plan review.

2.7.5.4 The Kansas Department of Health and Environment (KDHE) requires an NPDES Stormwater Permit for Construction Activities; permit fee is \$60.

2.7.6 Building Code.

2.7.6.1 POC is Gary Ortiz, City Manager, 913-682-4232. Ortiz has confirmed that the City has no building code jurisdiction over the Federal project site, and that no City building permit or inspection will be required.

2.7.7 Fire Protection.

2.7.7.1 Comply and cooperate with the government's selected Fire Protection provider for requirements of service.

2.7.8 Water.

2.7.8.1 Service provider is Leavenworth Water Department. POC is Don Murphy, Leavenworth Water Department, 601 Cherokee, P.O. Box 575, Leavenworth Ks, 66048; 913-682-1513.

2.7.8.2 Murphy has reviewed preliminary site plan, and has provided service size, location, and flow information for the project. Contractor shall continue to coordinate water service design and subsequent construction with City.

2.7.8.3 Murphy has provided estimated connection/construction costs for water service for the project to be \$300 for the Water Department tapping crew to tap the main; plus \$3,600 for materials purchased from the Water Department to include a tapping sleeve, valve, pipe for extension under street, and hydrant at property line; plus \$3,000 for material and installation of a meter pit assembly plus \$8,650 in assessments for previous main construction. The total estimated cost of \$15,550 shall be paid by the Contractor. There will be no additional permit, review or inspection fees.

2.7.9 Sanitary Sewer.

2.7.9.1 Service provider is City of Leavenworth. POC is Michael McDonald, Director of Public Works and City Engineer; see paragraph 2.7.3.1 for contact information.

2.7.9.2 McDonald has reviewed preliminary plans for AR on-site sewer and for extension of sewer from site to nearest City manhole, and is in basic agreement with them. Contractor shall continue to coordinate storm drainage design and subsequent construction with City. Contractor shall also coordinate design with KDHE. Contractor must obtain permission to work on City property – see Attachment V to this Statement of Work for draft letter of request. Proof of insurance for working in City right-of-way will be required.

2.7.9.3 The Contractor shall provide design and construction of both on-site sewer and off-site extension to manhole. Requirements for design and construction of off-site sewer are in Attachment P to this Statement of Work.

2.7.9.4 The area charge for this project is waived in exchange for construction of the off-site sewer. The plan review fee for the sewer work is included in the site plan review fee; see 2.7.5.3. Contractor shall pay City inspection fee of 6% of value of sewer work. Contractor shall also post a bond with the City for the off-site work; the bond shall be for 125% of the cost of the off-site work, including restoration of streets and ditches disturbed by work.

2.7.9.5 Contractor shall conduct a pre-construction conference for sewer work (coordinate time and location with City Engineer), provide sufficient inspection services to ensure that requirements of approved plans and specifications are met, and provide City with AutoCad files and as-built drawings of completed off-site work.

2.7.9.6 At completion of off-site work, Government will donate off-site sewer to City. Contractor shall provide Government with cost and other design/construction information required for such donation.

2.7.10 Natural Gas.

2.7.10.1 Service provider is Kansas Gas Service. POC is Dennis Beaver, 2720 2nd Av., Leavenworth, KS, 66048; 913-758-2728.

2.7.10.2 Beaver has reviewed preliminary plans and loads for the project. An economic analysis performed by Kansas Gas Service has determined that Kansas Gas Service will charge no service installation fees (See Attachment W). Contractor shall continue to coordinate gas service design and subsequent construction with Kansas Gas.

2.7.10.3 Contractor shall contact Beaver to coordinate design and schedule construction work.

2.7.11 Electric.

2.7.11.1 Service provider is Westar Energy, 2720 Second Avenue, Leavenworth, KS 66048. POC is Ms. Cheryl Concannon 913-758-2724; FAX 913-651-0595.

2.7.11.2 Concannon has reviewed a preliminary site plan and is in basic agreement with project site design.

2.7.11.3 A ten-foot easement will be required around the new power pole; Contractor to coordinate with Westar and Government or City. No easement will be required on the property between Metropolitan Avenue and the building.

2.7.11.4 The application for new electric service will not require a Government signature. Copies of the service request forms can be obtained by calling 1-800-784-6104. Westar Energy requires a 45 to 60 day notice for new service.

2.7.11.5 There is no design fee required before design can proceed. There is no installation fee required before construction can proceed. There may be installation fees, to be paid by the contractor, after exact service size is established.

2.7.11.6 Contractor shall arrange and pay for any temporary service required for construction.

2.7.12 **Telephone.**

2.7.12.1 Service provider is SBC Communications, 5400 Foxridge Drive, Room 500, Mission, Kansas, 66202. Point of contact is Rick Theno, 913-676-1281; FAX 913-676-0585.

2.7.12.2 Theno has reviewed a preliminary site plan and is in basic agreement with project site design. Schematic and final design drawings shall be submitted to Mr. Theno to establish route of telephone service.

2.7.12.3 The telephone service may occupy the same trench as the electrical service with a 2'-0" distance between services.

2.7.12.4 The application for new telephone service will require a Government signature. Copies of the service request forms can be obtained from Mr. Theno. The Contractor is required to initiate the application for new service, 45 to 60 days notice is required.

2.7.12.5 There is no design fee required before design can proceed. There is no installation fee required before construction can proceed. There may be an installation fee, to be paid by the Contractor, depending on exact type of service requested.

2.7.13 **Cable Television.**

2.7.13.1 Service provider is Time Warner, 6555 Winchester Avenue, Kansas City, Missouri, 64131. POC is Gary Glauberman; 816-222-5407; FAX 816-743-0053; E-MAIL gary.glauberman@twcable.com.

2.7.13.2 No specific approval is required; however, a site plan shall be submitted to indicate the service location in to the building.

2.7.13.3 The CATV service may occupy the same trench as the electrical service, if a separation from the electric service is maintained.

2.7.13.4 The application for new CATV service will require a Government signature. Copies of the service request forms will be available at (913-643-1906). The Contractor is required to initiate the application for new service. Time Warner requires a 60 day notice for service request.

2.7.13.5 There may be an installation fee, to be paid by the Contractor,

PART 3
SITE CIVIL ENGINEERING

3.1 GRADING

3.1.1 Building shall have a minimum grade of 2% away from the building exterior walls for positive drainage. The Contractor's Geotechnical Engineer shall identify if steeper grades are necessary based on shrink/swell soil characteristics.

3.1.2 Design grades to provide required sight lines related to traffic and roadway design.

3.1.3 Design grades to meet accessibility requirements where required.

3.1.4 The Contractor shall be responsible for dewatering necessary for grading and other subsurface works necessary for the construction of the Project.

3.1.5 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.

3.1.6 The plan should reflect selective site clearing that preserves groups of trees.

3.1.7 Erosion and Sediment Control Facilities shall be required in accordance with Federal, State and local regulations. The Contractor is responsible to meet Natural Pollutant Discharge Elimination System (NPDES) Stormwater Runoff from Construction Activities Permit, Plans, NOI and payment of fees requirements. Attachment U contains information for obtaining this NPDES Permit in the State of Kansas.

3.1.8 The Contractor shall obtain the Excavation Permit (see Attachment S) and pay associated fees as given in Attachment T. The City of Leavenworth has determined that the Grading Permit fee will pay for the City's overall site plan review process for this project as outlined in the City's February 5, 2004 letter (letter item no. 4) included as Attachment N.

3.1.9 The Contractor shall preserve and protect the Kansas Department of Health and Environment (KDHE) air monitoring station in place on the site. The Contractor shall maintain access to the KDHE air monitoring station during construction.

3.1.10 The Contractor shall notify Kansas One-Call 1-800-DIG-SAFE for utility and obtain locations and utility markings in the field prior to start of construction.

3.2 SOILS.

3.2.1 Geotechnical Report. Attachment A contains a Preliminary Geotechnical Report for informational purposes only.

3.2.1.1 Certification. The offeror and their professional geotechnical engineer 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 first Site/Utility Design Submittal. If revisions are made to the design submission, a new certification shall be provided with the next design submission.

3.2.1.2 Changed Conditions. As noted in paragraph 3.2.1, the geotechnical report in the RFP is for informational purposes only and the offeror awarded the contract is responsible for conducting their own project specific geotechnical investigation and report. If the contractor encounters conditions different than provided in the RFP, the contractor shall submit the project specific geotechnical report differences and notify the Government of the potential for cost impacts such as rock or groundwater elevations; discovery of soil, rock, and groundwater problems; discovery of contamination; changes required for foundations or pavements; changes in earthwork requirements; etc.. The Government shall evaluate the notification to determine if a Changed Condition exists prior to the approval to initiate construction.

3.2.2 Soil Compaction. Soil compaction shall be achieved by equipment approved by a professional geotechnical engineer. Material shall be moistened or aerated as necessary to provide the moisture content that will readily facilitate obtaining the compaction specified with the equipment used. Compact each layer to not less than the percentage of maximum density specified in Table 3.1, determined in accordance with ASTM D 1557, Method D.

TABLE 3.1 Soil Compaction

Subgrade Preparation, Fills, Embankments, and Backfills	Compaction Requirements (Percentage of Maximum Density)
Structures & Building Slabs	95
Streets, Paved Areas, Bike Paths, Utility Trenches	90
Sidewalks	85
Grassed Areas	80

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 stated compaction requirements shall require the approval of the Contracting Officer.

3.2.3 Capillary Water Barrier. A capillary water barrier is required for all interior slabs on grade, including garages, carports and storage rooms. As a minimum, the capillary water barrier shall consist of clean, crushed, non-porous rock, crushed gravel, or uncrushed gravel. The maximum particle size shall be 1-1/2 inches and no more than 2% by weight shall pass the No. 4 size sieve. A polymeric membrane shall be placed over the capillary water barrier and under the concrete slab on grade.

3.2.4 Rock: Shale bedrock excavation will be encountered under the western portion of the developed area of the designated site property. Excess rock excavation material may be retained and used on site if it meets specifications for soil or rock material to be used in site construction according to tests conducted on the rock material. Otherwise, dispose of rock off site. Protect exposed shale bedrock from erosion, unnecessary abrasion from construction equipment and operations, and desiccation that degrades its strength and density properties from its in situ condition.

3.2.5 Special conditions. The Contractor's geotechnical engineer shall recommend designs to account for site specific soil conditions including, but not limited to: expansive soils, shrinking soils, sinkholes, variable groundwater, seismic activity, and chemically or radiologically active soils.

3.3 UTILITIES. See Part 1 for additional utility information.

3.3.1 GAS DISTRIBUTION SYSTEM. The gas distribution services between the main and the meter assembly (to and including the meter) will be provided and installed by Kansas Gas. Kansas Gas will tap the main, bore under Metropolitan Avenue and install off site and onsite gas service pipes, valves, regulator, and meter to the buildings. Contractor shall coordinate the installation of this line with Kansas Gas. Connection to existing gas distribution system shall be made at the locations designated by Kansas Gas.

3.3.1.1 Materials. Piping shall be that required or utilized by the local gas company. Contractor to coordinate with the gas company for this information.

3.3.1.2 Testing. Prove that the entire system of gas mains and service lines is gas-tight by an air test, in accordance with ANSI B31.8. The test shall continue for at least 24 hours between initial and final readings of pressure and temperature. Contractor to ensure that this test is performed.

3.3.1.3 Mains and service lines. Lines shall not be placed under any buildings. Lines shall be placed with a minimum of 24 inches of earth cover. Protective casings shall be provided to protect lines from superimposed street or heavy traffic loads.

3.3.2 WATER DISTRIBUTION SYSTEM. The design of the water distribution system shall be in accordance with the requirements as noted herein and, the American Water Works Association (AWWA) Standards and Manuals of Water Supply Practices, the State of Kansas Department of Health and Environment (KDHE), and the Leavenworth Water Department. Where the requirements of the Leavenworth Water Department and the requirements defined herein disagree, the more stringent shall apply. The system shall be installed in accordance with the requirements of the attached water distribution specification, with the piping at least 36 inches below ground or deeper as needed for frost protection. 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.

3.3.2.1 Analysis of Existing System Capacity. Existing flow characteristics are shown in the attachments for information only. The contractor shall perform, or have performed by a qualified fire protection designer, a flow test to verify the results noted in this RFP. The contractor shall provide design calculations that show the existing system is capable of handling the additional flows for this Facility. Flow test will determine the capability of the system to handle the fire protection load.

3.3.2.2 Connections to Water Mains and Building Service Lines. Connection to the existing water mains will be where shown on drawings. 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 and provisions in paragraph 3.3.2.12 of this section of the specification.

3.3.2.3 Connections to Water Mains. Design the connections to the water distribution system including the meter assemblies and the necessary backflow-preventing devices. 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 6 inches. 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 local building code for a 150 psi working pressure system. Provide sacrificial anodes for ferrous valves, fittings, and pipes.

3.3.2.4 Building Connections. Contractor shall provide the necessary transition fittings, adaptors, or reducers needed between site piping and building piping.

3.3.2.5 Trenches. Water and gas mains are not to be installed in the same trench. Water mains shall have a minimum earth cover of 36 inches. 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 6 inches and insulated to prevent freezing. Lines crossing below railroad tracks shall be a minimum of 48 inches below grade and shall be sleeved or cased in accordance with the requirements of the AREMA Manual, Chapter 1, Part V.

3.3.2.6 Fire hydrants. Hydrants and valves shall conform to AWWA C500. Post Indicator Valves shall conform to the requirements of NFPA 24. Fire hydrants shall be compatible with those presently in use at the installation, with similar pump and hose connections. Hydrants shall be dry barrel type. The maximum amount of flow that can be permitted shall be determined. Fire hydrant spacing shall be no greater than 500 feet 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 350 feet 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 1500 gpm of fire protection regardless of existing pressures or water line capacity. A fire hydrant shall be located within 50 feet from any fire department connection provided. Hydrant laterals shall be 6 inches minimum size, and shall have an underground shutoff valve. Valve box, at each lateral, shall be located within 10 feet 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.

3.3.2.7 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 walks are prohibited.

3.3.2.8 Metering. Meters shall be equipped with the Leavenworth Water Department option for electronic monitoring. The method of remote monitoring must be coordinated with the Leavenworth Water Department. Meter and its installation shall be purchased from the Leavenworth Water Department.

3.3.2.9 Materials. Materials for the water distribution system shall be in accordance with the attached water distribution specification (Section 02510, Water Distribution System). Copper water service lines will be dielectrically isolated from ferrous pipe. Dielectric isolation shall conform to the requirements of specification Section 02510. For ductile iron piping systems (except for ductile iron piping under floor in soil) conduct an analysis to determine if cathodic protection and/or bonded or unbonded coatings are required. Unbonded coatings shall conform to the requirements of the agency having jurisdiction.

3.3.2.10 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, except that water needed for field tests will be furnished as set forth in specification Section 02510. Water needed for field tests will not 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 the requirements of the attached specification (Section 02510).

3.3.2.11 Off Site Construction. Connection to the in place municipal water main requires off site construction and shall conform to the Leavenworth Water Department and State of Kansas Department of Health and Environment requirements for its construction and as outlined in Part 1. Work in the City of Leavenworth right-of-way of Metropolitan Avenue shall be coordinated with the City of Leavenworth.

3.3.2.12 For the off-site service tap in the Metropolitan Avenue right-of-way, the Contractor shall expose the in place water main, install a jacked or bored crossing of Metropolitan Avenue and install water main pipe, fittings, and appurtenances including trenching, backfilling, and restoration. The Contractor shall coordinate with Leavenworth Water Department so that the Water Department can conduct the tap of the water main (estimated cost is \$300.00). The Contractor shall purchase the tapping sleeve, valve, pipe for the service extension. and one hydrant directly from the Leavenworth Water

Department (estimated cost is \$3,600.00). The Contractor shall install the material purchased from the Water Department.

3.3.2.13 WATER METER. The Contractor shall purchase the water meter assembly from the Leavenworth Water Department (estimated cost is \$3,000.00 for a 2 inch domestic service). The meter items include the meter, automatic meter reading unit and meter pit (36 inch diameter body, top ring and cover). The Contractor shall verify the actual service size based on domestic water demand and coordinate with the Leavenworth Water Department for meter costs and materials. The Water Department will tap the 6 inch diameter D.I.P. service extension at the property line and connect to the meter assembly. The Contractor shall furnish and install the connecting service pipe from the tap to the meter and the penetration at meter pit wall. The Contractor shall furnish and install service lines, valves, fittings, and appurtenances from the end of the Water Department work at the meter pit.

3.3.3 SANITARY SEWER SYSTEM. The design of the project sanitary sewer system shall be in accordance with City of Leavenworth Public Works and KDHE specifications. Where the requirements of the City of Leavenworth and the requirements defined herein disagree, the more stringent shall apply. The contractor shall determine the sewer contribution for the facilities and shall verify the design of all components of the sanitary sewer system.

3.3.3.1 System extension of City of Leavenworth sanitary sewer, coordination of design review and approval. The Contractor shall submit the design of the extension of City of Leavenworth sanitary sewer system from an in place manhole in 20th Street, to the site following the 20th street and Metropolitan Avenue right-of-way (R.O.W.) and as noted in concept on sheet C1.6 of the plans. The sanitary sewer shall be designed for sufficient depth to accommodate the future lowering of the Metropolitan Avenue and 20th Street intersection by 8 feet. The sewer design and construction plans shall be submitted to the City of Leavenworth Public Works Director to review, revision (if needed), and subsequent approval. Minimum pipe size shall be 8 inches in diameter and PVC pipe is acceptable to the City of Leavenworth. See 3.3.3.11 for additional requirements.

3.3.3.2 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 a manhole.

3.3.3.3 Building Sewer Laterals and Connections. Laterals and building connections shall be designed and constructed in accordance with the International Building Code. Minimum diameter for laterals shall be 6 inches while maintaining a minimum velocity of 2 feet per second.

3.3.3.4 Main Collection Trunks. Pipe sizes and slopes shall be calculated using Manning's Formula. Manholes are required at all changes of direction and spaced not more than 400 feet apart. Curved sewers are prohibited. Pipes shall be designed to flow full and maintain a minimum velocity of 2 fps. Minimum size 8 inches.

3.3.3.5 Trenches. Sewer and water lines, mains or laterals, shall be placed in separate trenches.

3.3.3.6 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 City of Leavenworth and KDHE specification for design and construction of sanitary sewers.

3.3.3.7 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 30 inches unless special pipe materials are used and/or unless the pipe is concrete encased with a minimum of 6 inch thickness of concrete.

3.3.3.8 Field Quality Control for Sanitary Sewer Distribution System. The Contractor shall conduct and witness field tests specified. The Contractor shall perform field tests, and provide labor, equipment, and incidentals (including water supply) required for testing. Testing procedures and requirements shall comply with the requirements of the City of Leavenworth and KDHE. The Contractor shall coordinate with City of Leavenworth Public Works for City inspection or observation of sanitary sewer construction.

3.3.3.9 Oil/Water Separators. The oil/water separator shall be designed and sized in accordance with the guidance in the "Joint Service Oil/Water Separator Guidance Document", available as Army Environment Center document SFIM-AEC-EQ-CR-200010. The oil/water separator is located under the military equipment parking pavement. The oil/water separator body, top, and access lids shall be designed for the applied soil and vehicle loads.

3.3.3.10 Manholes. Manholes shall be located at intersections and changes in alignment or grade. Intermediate manhole maximum spacing shall be 400 feet. Manholes and manhole appurtenances shall be pre-cast concrete and shall conform to the requirements of the jurisdiction having authority over the design and operation of the main system. Shape manhole inverts to the shape of the pipe with cast in place concrete after installing pipes. The manhole lid shall have a 24 inch minimum opening as measured from the face of the wall or ladder where applicable. Manhole lids shall have "Sanitary Sewer" cast in the lid pattern.

3.3.3.11 Off Site Construction. Extension of City of Leavenworth municipal sanitary sewer from an off site manhole is required for this facility. The Contractor shall conform to the requirements for the sanitary sewer extensions as outlined in the City of Leavenworth letter (item no. 2) included as Attachment N. The applicable enclosures to the City letter are included as Attachments to this section. The Contractor shall complete and submit the Letter of Understanding (a draft copy is included as Attachment V), and submit a signed original of this letter to the City of Leavenworth to confirm commitment to the provisions as outlined in the City's letter, a copy should also be sent to the Government. The Contractor requirements and provisions as outlined in the Letter of Understanding are hereby incorporated into the project requirements and specifications to be complied with by the Contractor. The Contractor shall submit the

State of Kansas Department of Health and Environment Sewer Extension Permit signed by the City of Leavenworth Director of Public Works (Attachment Q). Construction shall also conform to the requirements as outlined in Part 1. Offsite sanitary sewer construction shall conform to the City of Leavenworth, Kansas "Standard Specification for Sewer Line Construction", revised and approved April, 1996 (Attachment P), and KDHE "Minimum Standards of Design for Water Pollution Control Facilities. The KDHE permit shall be in hand before starting construction of the sanitary sewer extension.

3.3.4 STORM DRAINAGE COLLECTION SYSTEMS AND GRADING.

3.3.4.1 Location of Connections to Existing Systems. The contractor shall select the connection location. Establish the location for the connection based upon economics, design requirements, and downstream capacity. Connect with a manhole or appropriate drainage structure.

3.3.4.2 Storm Sewer System. The storm sewer gravity drainage collection system shall be designed and constructed in accordance with the requirements of jurisdiction having authority over the design and operation of the main system. The storm sewer system shall be designed for a minimum of a 10-year return frequency and pipes shall be sized for full flow. The minimum velocity of flow in conduits during a design storm shall be 3 fps. The pipe capacity shall be determined so that the calculated hydraulic grade line of the storm sewer drainage system(s) shall not exceed the curb flow line grade in pavements and the finished site grades. Overland drainage outlets shall be provided so that on site water levels at the buildings are a minimum of one foot below the lowest first floor elevation and building openings for the 100 year return frequency.

3.3.4.3 Manholes. Manholes shall be located at intersections and changes in alignment or grade. Intermediate manhole maximum spacing shall be 250 feet for pipes 36 inches or less in diameter or box drains with the smallest dimension less than 36 inches. Maximum spacing for intermediate manholes on larger pipes and drain boxes shall be 500 feet. Manholes and manhole appurtenances shall be pre-cast concrete and shall conform to the requirements of the jurisdiction having authority over the design and operation of the main system. Shape manhole inverts to the shape of the pipe with cast in place concrete after installing pipes. The manhole lid shall have a 24 inch minimum opening as measured from the face of the wall or ladder where applicable. Manhole lids shall have "Storm Sewer" cast in the lid pattern.

3.3.4.4 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 one percent. In grass areas, overland sheet flow shall be held to a maximum length of 100 feet or the length that can be shown not to erode the grass surface; then, a swale or an inlet must then be used. Minimum slopes in swale centerlines shall be 0.5 percent. Maximum swale side slopes shall be 1V: 4H and maximum swale depth shall be 24 inches. Ditches shall not be permitted. Storm drain pipe, sheet flow surfaces, and swales shall be designed to prevent standing water under normal conditions.

3.3.4.5 Drainage of Roads and Pavements. Provide a positive crown in all streets and roads. Minimum cross slopes in streets and roads shall be 2.0% and the maximum cross slope shall be 3.0%. Minimum sheet flow slopes across parking area and other paved areas shall be 1.5%. Curbs and gutters shall be installed at a minimum longitudinal slope of 0.30%. Pavement collectors for storm water shall be by curb inlets and gutters, or drop inlets. Field inlets and an underground collection system shall drain open areas. Gutter spread (or inlet approach spread) in roads shall not exceed 10 feet when measured from the face of curb. The amount of runoff to any one inlet in roads and parking areas shall not exceed the capacity of that inlet. The maximum spread allowable for determining inlet capacity shall equal that allowed for gutter spread in roads. The maximum spread allowable for determining inlet capacity in parking areas shall be height of curb or a depth of 6 inches, whichever is less.

3.3.4.6 Materials. All materials shall be in accordance with the jurisdiction having authority over the design and operation of the main system. Pipe for culverts and storm drains shall be of reinforced concrete.

3.3.4.7 Field Quality Control for Storm Drainage System. The Contracting Officer will observe field inspections. Testing procedures and requirements shall comply with the City of Leavenworth and KDHE requirements.

3.3.4.8 Off-site Construction. Review and approval for connection to and construction of storm sewer outlets into adjacent drainage ditches shall be coordinated with the City of Leavenworth Public Works.

3.4 ROADWAYS AND PAVEMENTS

3.4.1 Roadways shall be designed to accommodate the turning movements of a WB-62 vehicle (AASHTO). The actual final design geometric layout will vary from the concept layout of drawing C1.3 to incorporate the detailed turning movement of this design vehicle for site and loading dock access and egress.

3.4.2 Design traffic control signage and striping to allow for safe on site traffic control and routing. Traffic control signs and striping shall be reflectorized and meet State Department of Transportation criteria for visibility.

3.4.3 Provide concrete-filled steel pipe bollards to protect any buildings, equipment, transformers, meters, etc. located within 3 feet of roadways, drives, and parking areas.

3.4.4 Concrete (rigid) or bituminous (flexible) pavement may be used. Sidewalks, driveway entrances and aprons are to be concrete. The equipment list of the Government units shall be reviewed and the designer shall verify that the equipment list needs are met by the project pavement design.

3.4.5 Design - Pavement designs for roadways, parking lots, MEP, aprons and sidewalks shall be designed according to TM 5-822-2 through TM 5-822-8.

3.5 DRAINAGE

3.5.1 Design storm sewer and channel (ditch) conveyance of storm water runoff from areas within the site. Grading should manage site runoff to maintain rate of flow and quantity to pre-construction levels, or reduce site runoff where possible.

3.5.2 Off-site drainage areas that will contribute to the site drainage system shall be confirmed, this drainage shall be diverted around or through the site and outlet downstream of the on site drainage discharge outlet point.

3.5.3 Site contours and drainage features shall ensure reasonable runoff volumes and travel times into individual catch basins and ditches, etc. Sewers shall be sized and sloped to adequately convey these flows with a minimum velocity of 3 fps .

3.5.4 Federal, State, and local regulations regarding the design of stormwater management systems shall be considered the minimum design criteria.

3.5.5 Appropriate criteria shall be applied in the design of the storm sewer inlets in ditches.

3.5.6 Roof drains that drain onto the surface shall have splash block and stone erosion protection in discharge areas.

3.5.7 Design channel linings for long term stability under design flow conditions. Design energy dissipaters, rip rap scour protection, ditch blocks or weirs and inlets to maintain system in a stable configuration under operating conditions.

3.5.8 The drainage system shall collect and convey design flows to detention areas, inlets, channels and grates to provide flow capacity. Overflow provision shall be provided which prevents flooding of buildings and primary roadways.

3.6 CIRCULATION AND PARKING. The vehicular and pedestrian circulation system shall promote safe, efficient movement of vehicles and pedestrians within the site area. The following criteria shall be considered for designing streets and drives for vehicles and pedestrians:

3.6.1 Pedestrian Circulation. Pedestrian circulation should be safe and separate from vehicle circulation to the greatest extent possible. 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. Design pedestrian concentration areas with adequate paved area.

3.6.2 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 pick-ups. The passenger car template is equivalent to the non-organizational - privately owned vehicle (POV). The truck class template includes single-unit trucks, 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) provides 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. Obtain project specific military vehicle dimensions and specifications for site and pavement design considerations.

3.6.3 Vehicular Parking. Vehicle parking spaces and counts shall be as indicated on plans.

3.6.4 Driveways. Driveways shall conform to the City of Leavenworth's requirements included as Attachment R and as modified to accommodate vehicle turning movements and as approved by the City of Leavenworth..

3.7 DEMOLITION.

3.7.1 Materials shall be disposed of off government property in a state certified landfill. Obtain required demolition permits and disposal permits. Obtain approval of the disposal site from the contracting officer.

3.8 CLEARING AND GRUBBING.

3.8.1 Clear and grub all trees and vegetation necessary for construction; but, save as many trees as practical.

3.9 EARTHWORK.

3.9.1 The contractor is responsible for defining earthwork requirements in the contractor provided site-specific geotechnical report and the contractor provided specifications.

3.10 BORROW MATERIAL.

3.10.1 Obtain borrow material required for construction from sources off Government property.

3.11 MODULAR RETAINING WALLS

3.11.1 Modular (or segmental) retaining wall design, materials, and construction shall conform to the provisions of the "Design Manual for Segmental Retaining Walls" as published by the National Concrete Masonry Association (NCMA), 1997 Edition. Wall design and plans shall be certified by a Professional Engineer licensed by the State of Kansas. Modular unit size, texture and color characteristics shall be submitted to the Government for review as part of the design process.

3.12 WORK IN PUBLIC RIGHT-OF-WAY (R.O.W) AND EASEMENTS

3.12.1 The Contractor shall coordinate and obtain approval from the City of Leavenworth for utility, driveway, and drainage related work within the R.O.W. for Metropolitan Ave and 20th Street or other utility easements. The Kansas Department of

*** SAFETY PAYS ***

USARC/OMS/UHS
Leavenworth KS

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Transportation owns the parcel up to the east property line. The Contractor shall coordinate with and obtain approval for encroachment onto Kansas DOT property, if needed.

PART 4

SITE ELECTRICAL/COMMUNICATION ENGINEERING

4.1 UTILITY POWER.

4.1.1 Coordinate electric power service with the local electric service provider. Confirm in writing the service provider's requirements for an underground primary line, pad-mounted transformer, metering, and underground secondary service. Provide the local service provider with load calculations, current characteristic requirements, dimensioned site plan, and additional information as required to properly coordinate and order electric service to the facility. Pay required design and installation fees; initiate application for service; and assist the Government in completing application for service, accepting installation of service, and start-up of service. Coordinate meter location next to the pad-mounted transformer.

4.1.1.1 The local electric service provider is Westar Energy. The points of contact for engineering related issues are Dan Dejmal, telephone (913) 768-3226 or Cheryl Concannon, telephone (913) 758-2724.

4.1.1.2 Preliminary coordination with Cheryl Concannon indicated that the utility will provide the following:

4.1.1.2.1 Pole(s), primary conduit and cables, pad-mounted transformer, meters, and CT's. The Government will own the secondary conduit and cables. Coordinate with the utility for a transformer location/installation that complies with UFC 4-010-01 criteria.

4.1.1.3 The Contractor shall obtain any available rebates from the utility and credit those rebates to the Government in the bid.

4.1.1.4 The service for the Training Center will be sized for the load calculated per the NEC plus 25% excess capacity, rounded up to the next standard service size, for future growth.

4.1.1.5 Provide grounding electrode system as called out in UFC 4-171-05 such that the resistance of any individual made electrode has a resistance to ground of 25 ohms or less and the grounding electrode system has a resistance to ground of 5 ohms or less.

4.2 EXTERIOR LIGHTING.

4.2.1 Exterior lighting shall comply with state and local codes, IES recommendations, and UFC 4-171-05. Provide IES recommended lighting levels for POV parking area and MEP area using 400 watt metal-halide cut-off fixtures on 30 foot steel poles. Provide IES "enhanced security" light levels on sidewalk at front of building. The flagpole and the monument sign shall be properly illuminated. The building mounted sign (facing the highway) shall be illuminated from above. Provide decorative bollards along the sidewalk from the building to the "controlled" POV parking area. These bollards should be aesthetically coordinated with the parking lot fixtures.

4.2.2 All exterior lighting fixtures shall be controlled by a time switch, with a photocell override control; Control shall be photo on/time off, time on/photo off.

4.3 **TELEPHONE SERVICE.**

4.3.1 Coordinate telephone service with the local telephone service provider. Confirm in writing the service provider's requirements for an underground copper cable telephone service. Provide the service provider with the number of active lines required, the number of wire pairs required, system features required, dimensioned site plan, and additional information required to properly coordinate and order telephone service to the facility. Pay required design and installation fees; initiate application for service and assist the Government in completing application for service; accepting installation of service; start-up of service; and activation of specific telephone numbers and dedicated lines for fire alarm, security, and elevator services.

4.3.1.1 The local telephone service provider is SBC Communications. The point of contact for engineering related issues is Rick Theno, telephone (913) 676-1281.

4.3.1.2 Preliminary coordination with the utility indicated that the utility will provide the following:

4.3.1.2.1 Multi-pair copper cables in direct-buried conduit (conduit provided by Contractor), pulled into the building.

4.3.1.3 Preliminary coordination with the utility indicated that the Contractor shall be required to provide the following:

4.3.1.3.1 Direct-buried conduit to outside (noted above); a complete telephone system.

4.3.1.4 Telephone service shall include a multi-pair copper cable in direct buried conduit. The cable shall be sized based on the number of jumpers. The number of jumpers will be equal to the number of installed telephone instruments plus the number of dedicated lines required for fire alarm, security system(s), elevator, and other project specific requirements. The number of jumpers is multiplied by two to determine the number of copper pairs for the telephone service cable. The number of active lines is equal to the number of jumpers noted above.

4.3.1.5 Special Requirement. Provide two empty 4" conduits with pull wires from main telephone equipment room to property line along Metropolitan Avenue for future (WAN) fiber optic cables.

4.4 **CABLE TELEVISION (CATV).**

4.4.1 Coordinate CATV service with the local CATV service provider. Confirm in writing the service provider's requirements for an underground cable distribution line service. Provide the local service provider with a dimensioned site plan and additional information as required to properly coordinate and order CATV service to the facility. Pay required installation fees; initiate application for service; assist the Government in completing application for service, accepting installation of service, and start-up of service.

4.4.2 The local CATV service provider is Time Warner. The point of contact for engineering related issues is Alan Shaw, telephone (913) 345-8852. The point of contact for service activation is Gary Glauberman, telephone (816) 222-5407.

4.4.3 Preliminary coordination with the utility indicated that the utility will provide the following:

4.4.3.1 Incoming direct-buried cable.

4.4.4 Preliminary coordination with the utility indicated that the Contractor shall be required to provide the following:

4.4.4.1 Premises wiring, outlets, and jacks.

PART 5

LANDSCAPE ARCHITECTURE

5.1 QUALITY ASSURANCE

5.1.1 **Source:** Plant varieties shall be nursery grown or plantation grown stock. They shall be grown under climatic conditions similar to those in the locality of the project. The plant material source shall not exceed a 250 mile radius from the project site.

5.1.2 **Quality.** Well-shaped, vigorous, healthy plants having healthy and well-branched root systems shall be provided. Plants shall be free from disease, harmful insects and insect eggs, sunscald injury, disfigurement, and abrasion. Balled and burlapped and **container** grown plants shall be in accordance with American Standard for Nursery Stock. Bare root plants are generally not acceptable.

5.2 SOIL TESTING

5.2.1 **Percolation Test.** Test for percolation shall be done to determine positive drainage of plant pits and beds. All soil and drainage conditions detrimental to the growth of plant material shall be identified and a proposal correcting the conditions shall be submitted.

5.2.2 **Planting & Topsoil Test.** A soil test shall be performed for pH, chemical analysis, and mechanical analysis to establish the quantities and type of soil amendments required to meet local growing conditions for the type and variety of plant material specified.

5.2.3 **Soil Test.** A soil test shall be performed for pH, chemical analysis, and mechanical analysis to establish the quantities and type of soil amendments required to meet local growing conditions for the type and variety of turf specified.

5.3 INSTALLATION

5.3.1 **Plant Material Installation.** Verify the location of underground utilities. When obstructions below ground or poor drainage affect the planting operation, proposed adjustments to plant location, type of plant, and planting method or drainage correction shall be submitted. The plant material shall be installed during appropriate planting times and conditions recommended by the trade for the type and variety of plant material specified. Plant pits shall be excavated and backfilled as recommended by the agency having jurisdiction. The planting operation shall be performed only during periods when beneficial results can be obtained. When special conditions warrant a variance to the planting operations, proposed planting times should be submitted.

5.3.2 **Maintenance During Planting Operation.** Installed plants shall be maintained in a healthy growing condition. Maintenance operations shall begin immediately after each plant is installed and shall continue until the plant establishment period commences.

5.4 ESTABLISHMENT PERIOD

5.4.1 **Plant Establishment Period.** On completion of the last day of the planting operation, the plant establishment period for maintaining installed plants in a healthy growing condition shall commence and shall be in effect for the remaining contract time period not to exceed 12 months. When the planting operation extends over more than one season or there is a variance to the planting times, the plant establishment periods shall be established for the work completed.

5.4.2 **Maintenance During Establishment Period.** The maintenance of plants shall include straightening plants, protecting plant areas from erosion, maintaining erosion material, supplementing mulch, maintaining edging of beds, checking for girdling of plants and maintaining plant labels, watering, weeding, removing and replacing unhealthy plants.

5.4.3 **Unhealthy Plant.** A plant shall be considered unhealthy or dead when the main leader has died back, or 25 percent of the crown is dead. Determine the cause for an unhealthy plant. Unhealthy or dead plants shall be removed immediately and shall be replaced as soon as seasonal conditions permit in accordance with the following warranty paragraph.

5.5 WARRANTY.

5.5.1 **Plant Warranty.** Furnished plant material shall be guaranteed to be in a vigorous growing condition for a period of 12 months regardless of the contract time period. A plant shall be replaced one time under this guarantee. Transplanting existing plants requires no guarantee.

5.6 **Landscape Irrigation** Provide underground irrigation system, complete with pipe fittings, valves, outlets, bubblers, drip-irrigation, and automatic controls for turf and planting beds.

5.7 TURF.

5.7.1 **Seed.** State approved seed of the latest season's crop shall be provided in the original sealed packages bearing the producer's guaranteed analysis for percentages of mixture, purity, germination, hard seed, weed seed content, and inert material. Labels shall be in conformance with applicable State seed laws. Seed mixtures shall be proportioned by weight. Weed seed shall not exceed one percent by weight of the total mixture.

5.7.2 **Sod.** State approved sod shall be provided as classified by applicable State laws. Each individual sod section shall be of a size to permit rolling and lifting without breaking. The sod shall be relatively free of thatch, diseases, nematodes, soil-borne insects, weeds or undesirable plants, stones larger than 25mm in any dimension, woody plant roots, and other material detrimental to a healthy stand of turf. Sod that has become dry, moldy, or yellow from heating, or has irregular shaped pieces of sod and torn or uneven ends shall be rejected. Sod shall be machine cut to a uniform thickness of 32 mm within a tolerance of 6 mm excluding top growth and thatch. Measurement for

thickness shall exclude top growth and thatch. The limitation of time between harvesting and placing sod shall be 36 hours.

5.7.3 **Sprig Quality.** The cultivar shall be provided as healthy living stems, stolons, or rhizomes with attached roots, including two or three nodes, and shall be from 100 to 150 mm long, without adhering soil. Sprigs shall be provided which have been grown under climatic conditions similar to those in the locality of the project. Sprigs shall be obtained from heavy and dense sod, free from weeds or other material detrimental to a healthy stand of turf. Sprigs that have been exposed to heat or excessive drying shall be rejected. The time limitation between harvesting and placing sprigs shall be 24 hours.

5.7.4 **Temporary Turf Cover.** When there are contract delays in the turfing operation or a quick cover is required to prevent erosion, the areas designated for turf shall be seeded with a temporary seed. When no other turf materials have been applied, the quantity of one-half of the required soil amendments shall be applied and the area tilled.

5.7.5 **Final Turf.** The turf shall be installed during appropriate planting times and conditions recommended by the trade for the type and variety of turf specified. The turf operations shall be performed only during periods when beneficial results can be obtained. Drainage patterns shall be maintained. The turf shall be installed by using the methods as recommended by the trade for the type and variety of turf specified. Immediately after turfing, the area shall be protected against traffic or other use by erecting barricades and providing signage as required. The turf establishment period for establishing a healthy stand of turf shall begin on the first day of work under the turfing contract and shall end three months after the last day of the turfing operation. An unsatisfactory stand of turf shall be repaired as soon as turfing conditions permit.

5.7.6 **Seeded Lawn Area.** A satisfactory stand of turf from the seeding operation for a lawn area is defined as a minimum of 1200 grass plants per square meter. Bare spots shall be no larger than 150 mm square. The total bare spots shall not exceed two (2) percent of the total seeded area.

5.7.7 **Seeded Field Area.** A satisfactory stand of turf from the seeding operation for a field area is defined as a minimum of 1000 grass plants per square meter. The total bare spots shall not exceed two (2) percent of the total seeded area.

5.7.8 **Sodded Area.** A satisfactory stand of turf from the sodding operation is defined as living sod uniform in color and texture. Bare spots shall be no larger than 50 mm square.

5.7.9 **Maintenance During Establishment Period.** The maintenance of the turfed areas shall include eradicating weeds, eradicating insects and diseases, protecting embankments and ditches from erosion, maintaining erosion control materials and mulch, protecting turf areas from traffic, mowing, watering, post-fertilization, and replacing unsatisfactory turf areas.

5.8 MISCELLANEOUS

5.8.1 **Edger.** Shrub & perennial beds adjacent to turf areas shall include a steel edging system.

5.8.2 **Mulch.** Planting beds & trees shall receive a minimum of 3" mulch. Organic or stone mulch is acceptable. Shrub beds are also to receive a weed barrier. Perennial beds do not.

5.8.3 **Building Maintenance Strip.** All buildings and accessory units are to receive a minimum 2' wide maintenance strip. The strip shall include stone mulch, weed barrier and steel edger.

PART 6

ARCHITECTURAL AND INTERIOR DESIGN

6.1 **DESIGN GOAL.** The overall architectural design goal for the Facility is to provide a functional, visually appealing facility that is a source of pride for facility users, and the installation. The conceptual building drawings present a building design scheme which considers the Army Reserve program and which has the approval of the Government. This does not preclude the Contractor from making improvements to the design so long as such improvements are consistent with the requirements of the RFP and acceptable to the Government. The building designs are conceptual; the Contractor shall finalize all elements of the design, including exact dimensions. In completing the design, the Contractor will be allowed some latitude in manipulating the plans and elevations to improve functional layout, to accommodate structural, mechanical, electrical and other systems, and to allow flexibility for design/esthetic expression. The spatial relationships and adjacencies, however, must be maintained, unless the Contractor recommends changes to the Government, and the Government approves such changes.

6.1.1 **Site Planning Objectives.** Provide a functional layout of building and site elements. The site plan should place emphasis on creating a safe work environment. Arrange vehicular circulation to minimize conflict with pedestrian circulation. Pavement marking and signage shall clearly delineate traffic patterns, even to first time visitors to the site. Integrate sustainable design principles by retaining and using existing topography to advantage; preserve environmentally sensitive areas and reduce overall project impact on the site.

6.1.1.2 Provide a site development plan that shows the spatial and functional arrangement of all facility requirements. The plan should ensure an economical, compatible and functional land use development that utilizes the advantages of the site, allows convenient access to the units which the facility supports, and fosters visual order. The site development plan shows consideration for the site opportunities and constraints, program requirements, and specific site design criteria and guidance provided.

6.1.2 **Exterior 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 immediate local context. Use durable, low-maintenance materials. Configure building massing and use exterior elements such as entry porches, and material detailing to provide human scale, especially at core areas.

6.1.2.1 The Army Reserve has approved the conceptual building plan and exterior designs, including the color scheme as discussed herein. Any appreciable change to the building footprint requires Army Reserve approval.

6.1.2.2 The USARC should be the primary visual focus of the project. The Unheated Storage Building color should be complementary to the USARC/OMS/AMSA color palette.

6.1.3 **Interior 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. 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. Where feasible, arrange spaces to allow rearrangement of furniture layout. Structure interior spaces to allow maximum flexibility for future modifications.

6.1.3.1 The RFP provides basic finishes and a color palette for most spaces. Contractor's designers are encouraged to develop a more comprehensive finish and color palette for approval by the Government, including accent colors and finishes, especially for common-use areas of the building. Such finish and color palette shall include doors, doorframes and window frames. Develop an attractive design including the use of accent color walls, and patterns and/or borders in flooring and tile work.

6.1.3.2 Functional space requirements are noted in Part 1; Contractor's designer is to coordinate the layout with Government. The Contractor shall develop restroom and locker room plan layouts in conformance with the requirements of this RFP and UFC 4-171-05, for the approval of the Government. Fixture counts shall be based on code requirements, accessibility requirements and the requirements of the Design Guide. The number of lockers shall be based on the largest drill weekend consisting of approximately 177 reservists. A ratio of 30% female to 70% male can be applied. Provide a total of 6 full height lockers in the OMS and 100 half height lockers in the Training Center.

6.1.3.3 Where Contractor provides schedules, labeling or key plans (for signage, lockset keying, electrical panel schedules, communications/data wiring, etc.), Contractor shall use final room numbers if different from Construction Document room numbers. Refer to UFC 4-171-05 for guidance on room numbering.

6.1.3.4 Special design emphasis shall be given to the entry vestibule, the entrance lobby, the stair between the entrance lobby and the upper floor, and the upper floor elevator lobby areas.

6.1.3.4.1 The lobby area will serve as the formal entry to the Training Center. Finishes in this area shall be of higher quality and esthetics than in the other spaces, but durability and maintainability remains important. Ceramic or quarry tile is the minimum requirement for flooring, and walls will be of abuse-resistant gypsum board, as a minimum. Designers should consider brick, tile, or specialty CMU products for walls. Corner guards shall be provided, and protective wainscoting or trim shall be provided for the walls. Bulletin boards and/or whiteboards shall be provided; confirm number and location with users. Provide ample glazing for natural lighting and exterior views.

6.1.3.4.2 Develop as an architectural feature the rectangular element dividing the two wings of the building. This feature terminates in curtain wall on each end of the building, and interior walls shall be designed to reinforce the architectural concept. Interior walls

within this building element shall be aluminum and glass storefront with aluminum and glass doors in the same finish as the exterior curtain wall.

6.1.3.4.3 The guardrail at the upper floor, around the stair, and on the stair itself shall be custom designed of stainless steel or glass and shall serve as a design focal point. The fascia below the rail shall be finished as an extension of the rail material.

6.1.3.4.4 The assembly hall shall have a VCT floor as a minimum. Consider using a sound absorbent composite roof deck with painted structure in the assembly hall in lieu of an acoustic tile ceiling.

6.1.4 **Material and Product Selection Criteria.** Materials shall meet the requirements of this RFP, which establish a minimum quality level. Higher quality materials will be judged more favorably.

6.2 **GENERAL CONSTRUCTION REQUIREMENTS.** The Training Center and OMS must be substantial structures with structural components per part 7 of this section. The exterior wall system will be masonry bearing wall with insulated cavity and brick veneer. Exterior openings shall receive steel or aluminum frame door systems, steel or aluminum windows, or aluminum curtainwall – provide operable windows at offices, unit commons, and other typically occupied spaces

6.2.1 Minimum thermal performance characteristics of the building envelope of heated and/or air conditioned buildings shall be as follows. Higher performance characteristics may be necessary to comply with referenced design standards.

Average U value for roof assembly: 0.03 BTU/hr/sf/°F

Average U value for wall assembly 0.05 BTU/hr/sf/°F

6.2.2 Referenced anti-terrorism and force protection requirements have significant influence on site design and building systems design.

6.3 **OCCUPANCY AND BUILDING TYPE CLASSIFICATIONS.** Occupancy classifications, construction types, allowable areas, maximum building heights, and fire separation requirements shall comply with the requirements of the International Building Code.

6.4 **EXTERIOR DESIGN.**

6.4.1 **Acceptable Materials and Colors.** The contractor is encouraged to develop an attractive exterior design, and will be permitted to use accents of varying brick, precast concrete, stone, tile, metal or translucent panels for exterior expression

6.4.1.1 The following exterior materials and colors are provided as a quality standard for completion of the exterior design:

- | | |
|----------------------------------|------------------------------|
| Brick 1 | Belden Royalty Red |
| Brick 2 | Belden Beaver Blend Dart-Tex |
| Metal roofing and trim | ColorKlad Slate Gray |
| Aluminum windows and curtainwall | Kawneer Sea Wolf |

6.4.2 **Exterior Walls.** The major materials for the exterior of the Training Center and OMS Building are brick. The OMS Building may also have metal panels above brick.

6.4.3 **Roofs.** The roof of the Training Center shall be an EPDM roof with a slope of one quarter inch per foot. The roof of the OMS shall be a sloped, non-structural standing seam metal roofing system (NSSSMRS). The roof of the Unheated Storage Building shall be part of the pre-engineered building system. Color of metal roofs, if by different manufacturers, shall be selected to match. Sloped roofs shall have a minimum pitch of 4:12. Roofing system shall have Underwriters Laboratory (UL) Class A rating for fire resistance, UL 90 wind resistance rating, and Factory Mutual (FM) 1-90 fire and wind resistance rating

6.4.3.1 Roof drainage for the Training Center shall be designed as exterior drainage. Drainage scuppers shall not be installed where curtainwall is installed, drainage shall be directed to other exterior drains. Avoid interior roof drainage. Storm water from roofs shall be collected in an underground drainage system and directed to storm sewer.

6.4.4 **Trim and Flashing.** Gutters and downspouts shall be provided for metal roofs, and shall be provided with heat tape. Metal trim associated with metal roofs shall be prefinished metal, shall match the roof in color and material, and shall comply with SMACNA Architectural Sheet Metal Manual. Provide 20 year manufacturers finish warranty.

6.4.5 **Miscellaneous Exterior Elements.**

6.4.5.1 Dumpster enclosure shall be substantially constructed of materials matching the Training Center, and shall have a concrete ground slab, a concrete thrust pad for the front wheels of the garbage truck and protective bollards. Enclosure shall be constructed with hinged solid gates and be designed to enclose two standard dumpster units.

6.4.5.2 A loading dock for the Unit Storage area shall have a depressed drive to form a dock height of 48". Furnish with dock bumpers.

6.4.5.3 The wash rack indicated is intended for the washing of military vehicles, and shall be approximately 20' x 40' in plan, have concrete floor with catch basin(s), and shall be entirely covered by a prefabricated structure, open on four sides, and be of the same manufacture as the Unheated Storage building. Freeze proof hose bibbs, lighting, and electrical outlets shall be provided.

6.4.6 **Signage.** Facility monument sign and building mounted signage with the Army Reserve Minuteman plaque are minimum requirements. Exterior building mounted signage shall read "United States Army Reserve Center."

6.4.6.1 Facility monument sign at site entrance shall be internally lighted and double sided, with Army Reserve logo, Regional Readiness Command logo, name of center and location in cutouts. Sign shall be substantially constructed and designed to complement the Training Center. The design of the sign shall reflect the dignity and importance of the Army Reserve.

6.4.7 Exterior Personnel Doors and Frames.

6.4.7.1 Main Entrance Doors and Hardware. Main entrance doors shall be an aluminum storefront system; other exterior doors at corridors and lobbies shall be an aluminum storefront system or full-glazed hollow metal.

6.4.7.1.1 Provide electrified main entrance doors consisting of the following minimum hardware: Double doors shall have a removable mullion, each leaf shall have a closer, hinges (1/2 pair electric), overhead stops, offset pulls and full weather strip. Locking devices shall consist of one leaf with Electric Latch Retraction Rim Exit Device and one leaf with Night Latch Function. Single doors shall consist of a closer, hinges, overhead stops, offset pulls and full weather strip. Locking devices shall consist of Night Latch Function Rim Exit Device and electric strike. Exit devices shall comply with Life Safety requirements of NFPA 101 and UL listed modern rim style device and shall be fail secure. The exit device shall have a dogging feature or have the ability to lock the latch in a retracted position for unrestricted building entry at times of the User's choosing. Doors shall be equipped with Entry Control Card Readers for both single and double doors (1 leaf) and shall include entry control software to control passage. Communications protocol shall be compatible with the local processor and Facility Security System. All wiring shall be concealed.

6.4.7.2 Other Exterior Non-entrance Doors and Hardware. 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.

6.4.7.2.1 Hinges. ANSI/BHMA A156.1; template, full mortise, heavy duty, ball bearing, minimum size 114mm x 114mm, non-ferrous base metal, non-removable pins.

6.4.7.2.2. Locksets. ANSI/BHMA A156.13; series 1000, Grade 1 mortise locksets, non-ferrous base metal, removable core.

6.4.7.2.3 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.

6.4.7.2.4 Closers. ANSI/BHMA A156.4; series C02000, Grade 1, hydraulic, factory-sized, adjustable to meet field conditions. Provide for all exterior doors, coordinate additional closer locations with user all doors opening to corridors, and as required by codes. At all exterior doors provide overhead holders or closers with hold-open capability.

6.4.7.2.5 **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.

6.4.7.2.6 **Thresholds.** ANSI/BHMA A156.21; non-ferrous metal. Provide at all exterior doors.

6.4.7.2.7 **Weatherstripping.** ANSI/BHMA A156.22. Provide at all exterior doors.

6.4.7.2.8 **Kick Plates.** ANSI/BHMA A156.6; non-ferrous metal. Provide at all doors with closers.

6.4.8 **Overhead Doors.** Doors to be coiling or track. Doors larger than 64 square feet shall be electric motor operated. Exterior doors shall be insulated.

6.4.9 **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, and resulting design pressure and performance grade shall be determined in accordance with the International Building Code (IBC). Provide windows with insulating 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. Operable windows shall have locks; provide fiberglass or aluminum insect screens removable from the inside. Glass and glazing shall comply with force protection minimum standards, and other code requirements.

6.4.9.1 **Storefront systems.** Provide swing-type aluminum doors and storefront frames of size and design sufficient to withstand design minimum wind load, and with resulting design pressure determined in accordance with the International Building Code (IBC). Deflection shall be limited to not more than 1/175 times the length of the member, with a safety factor of not less than 1.65. Provide glazing beads, moldings, and trim of not less than 0.050 inch nominal thickness. Provide doors complete with frames, framing members, subframes, transoms, adjoining sidelights, adjoining window wall, trim, and accessories. Provide windows with insulating glass and thermal break to achieve no water penetration at a pressure of 8 pounds per square foot of fixed area, and air infiltration not to exceed 0.06 cubic feet per minute per square foot of fixed area at a test pressure of 6.24 pounds per square foot. Finish shall be Architectural Class I anodic coating or AAMA 2605 organic coating. Glass and glazing shall comply with force protection minimum standards, and other code requirements.

6.4.10 **Thermal Insulation.** Provide exterior wall, floor, and roof/ceiling assemblies with thermal transmittance (U-values) required to comply with the energy calculations for the facilities. Insulation shall not be installed directly on top of suspended acoustical panel ceilings. The building envelope shall comply with ASHRAE Standard 90.1.

6.4.11 **Fire Extinguishers.** Provide fire extinguishers in accordance with generally accepted practices. Provide recessed or semi recessed fire extinguisher cabinets in occupied areas. Provide surface mounted fire extinguisher cabinets in storage and mechanical/electrical spaces.

6.5 INTERIOR DESIGN.

6.5.1 **General Guidance.** Interior design guidelines are addressed in UFC 4-171-05, Section 3.6. Where the Design Guide indicates finishes as “preferred,” the preferred finishes are the minimum requirement for this RFP. Additional project specific requirements are listed below and in the table in Part 1.

6.5.1.1 The Army Reserve has selected four basic color palettes for interior design of AR facilities;. The following interior colors and materials of the “green” color palette are provided as the basis for pricing:

- Carpet 1 – Collins & Aikman Infinity #55017 Herb Garden
- Carpet 2 – Collins & Aikman Plexus Accents #60009 Peacock
- VCT 1 – Tarkett #4512
- VCT 2
- Paint 1 – Sherwin Williams #1094 Kestrel White
- Paint 2 – Sherwin Williams #1197 Tempting Teal
- Paint 3 – Sherwin Williams #1476 Truly Teal
- Paint 4
- Ceramic Tile – American Olean #13 Classic Bone

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6.5.1.2 Interior Design documentation to be prepared by the Contractor includes the Structural Interior Design submittal (SID) that accompanies the construction documents, and the Comprehensive Interior Design submittal (CID) that accompanies the Furniture Procurement Package. These are submitted in ring binders.

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6.5.2 **Floors.** Non-combustible construction is preferable, even where combustible materials are allowed by code. Floor finish materials shall be as specified in the Design Guide; where “preferred” flooring materials are listed in the DG, the preferred flooring shall be the minimum requirement for this project, unless noted elsewhere in this RFP.

6.5.2.1 Carpet floor finish shall be modular carpet tile in lieu of roll goods.

6.5.3 **Ceramic Floor 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.

6.5.4 **Interior Walls and Partitions.** Non-combustible construction is preferable, even where combustible materials are allowed by code. All stud partitions shall be steel stud.

6.5.5 **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: 16 inches on center. Provide galvanized finish.

6.5.6 **Gypsum Board.** Comply with ASTM C 36. Minimum panel thickness shall be 5/8 inch. Provide Type X panels in fire-rated assemblies. Provide moisture resistant panels at locations subject to moisture. Provide abuse-resistant panels for corridors and

other areas of likely high circulation use. Joint treatment: ASTM C 475. Screws ASTM C 646. Drywall installation: ASTM C 840.

6.5.7 **Ceramic Wall 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 shall be mortar setting bed or cement backer board (gypsum board is not acceptable).

6.5.8 **Ceilings.** Non-combustible construction is preferable, even where combustible materials are allowed by code. Provide access panels where required for access to equipment or controls.

6.5.9 **Interior Doors and Frames.** Provide hollow metal frames, and wood or hollow metal doors. Doors to offices, unit commons, classrooms, toilets, and other typically occupied spaces shall be wood; doors to more utilitarian spaces shall be hollow metal. Provide lights in doors where reasonable based on space usage and borrowing of daylight. Refer to UFC 4-171-05, Section 3.5.5 for additional guidance on interior doors.

6.5.9.1 **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.

6.5.9.2 **Wood Doors.**

6.5.9.3 **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.

6.5.9.3 **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.

6.5.10 **Interior Door Finish Hardware.** Refer to UFC 4-171-05, Section 3.5.3 for guidance on door hardware and lockset guidance.

6.5.10.1 **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 114mm x 114mm.

6.5.10.2 **High Security Locksets.** Consult user for hardware type for "Secure Storage Area"

6.5.10.3 **Locksets on Interior Doors.** ANSI/BHMA A156.13; series 1000, Grade 1 mortise locksets, non-ferrous base metal, removable core.

6.5.10.4 **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.

6.5.10.5 **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.

6.5.10.6 **Auxiliary Hardware.** ANSI/BHMA A156.16. Provide wall stops for all doors that do not have overhead holder/stops. Provide other hardware as necessary for a complete installation.

6.5.10.7 **Kick Plates.** ANSI/BHMA A156.6; non-ferrous metal. Provide at all doors with closers.

6.5.11 **Casework.**

6.5.11.1 **Vanity Countertop at Toilets.** Countertops shall be solid surfacing material, with integral covered backsplash. Substrate shall be two layers of 19 mm thick exterior grade plywood. Reinforce countertop with concealed steel angles so that top will not deflect more than 5 mm when 115 kg load is applied at mid-span. Comply with AWI Section 400 Custom Grade requirements.

6.5.11.2 **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 1.27mm thick; vertical laminate: nominal 0.71mm thick. Door and drawer edges shall be heavy duty 3 mm extruded polyvinyl chloride with self-locking serrated tongue. Worksurfaces and counter shall be high pressure decorative laminate, or solid surfacing material.

6.5.12 **Window Treatments.** Provide horizontal aluminum mini-blinds at all interior and exterior windows in core areas, except windows and storefront in corridors. Blinds shall have 25.4mm wide x 0.2mm thick slats with anti-static, anti-microbial polyester baked enamel finish. Provide heavy duty 25.4mm x 38.1mm steel headrail, and tubular steel bottom rail finished to match slats. Provide window blinds at all exterior windows, except in Lobby and at door sidelights. Color should be off-white.

6.5.13 **Interior Signage.** Comply with requirements of ADAAG and UFAS. Provide interior room identification signage for all rooms, directional signage, Army Reserve Minuteman plaque, and building directory in corridor at main entry. Coordinate locations with user.

6.5.14 **Corner Guards.** Provide wall and corner guards in high-traffic areas to match wall color. In the Unit Storage provide steel angle corner guards or bollards at wall corners and overhead door.

6.5.15 **Column enclosures.** If not required by code, provide gypsum board column enclosures, finished and painted, for all exposed columns in offices, classrooms, open office areas, simulation suites, break room, lobby, corridors, toilets, mail room, physical training, locker room, and similar finished or normally occupied spaces. Columns in

building service spaces and other utilitarian spaces may be painted and left exposed, unless enclosure is required by code.

6.6 FURNITURE AND EQUIPMENT.

6.6.1 The Contractor shall provide design and design documents, as described in this RFP, for the furniture and some equipment that is to be purchased and installed by the Government (Government-furnished, Government-installed or GFGI). The following items are the GFGI furniture and equipment in this project:

Items shown with identifying notes, or detailed, on the "F" series sheets in this RFP
Physical training equipment
Workbenches

6.6.1.1 Provide design and other required documentation for furniture in all spaces as indicated on floor plans, furniture plans, in Part 2, and in Spec Section 12705.

6.6.1.2 The Government will purchase and install the furniture and physical training equipment, using the Contractor's design documents and information. See Section 01021 for requirements for design documents and information. Furniture and physical training equipment is shown and called out on the "F" series drawings. The Contractor is responsible for coordinating its work with the furniture and physical training equipment installation, and for connection of power, voice and data cabling and devices to the workbenches and system furniture once it is installed. Contractor shall base the design of the office and unit common workstation furniture on Knoll products – see Sections 01021 and 12705. The Government has already performed a study establishing Knoll as the provider for this project.

6.6.1.3 Offices of officers of rank O5 and higher shall be designed to reflect the high rank of the users. Provide high quality wood furniture of a traditional type, with ornamentation. Chairs shall be wood and leather; desk chair shall be high-backed.

6.7 CHANGES/SUPPLEMENTS TO RFP DESIGN DRAWINGS.

6.7.1 Recess hallway doors from Assembly Hall 116.

6.7.2 Chase indicated on west end of second floor is intended to address the AT/FP requirement that intake louvers be located at least 10 ft above exterior ground surface.

6.7.3 Door from Breakroom 105 is to be accessible to the handicapped.

6.7.4 Furnish a 6 ft wide pair of doors from Janitor 203C.

6.7.5 Align doors between Assembly Hall 116 and Chair Storage 114. Verify chair Storage 114 accommodates the folded tables, including door height clearance.

6.7.6 Center the door of the Assembly Hall 116 on the centerline of the building corridor.

6.7.7 In lieu of the furniture shown in CSM 201B.and BN CDR 201C furnish according to the following table:

Office	Size	Style	Components	Chairs
05 CMDR/ CSM**	200sf/ 120sf	Plain Traditional wood	Desk (30 x 66), Credenza with Pullout Keyboard Drawer, Bridge (opt.), Task Chair, Table with 4 Chairs (use 2 chairs as side chairs at desk), 4-high Lateral File, 4-high Open Shelf Bookcase	Upgrade Fabric High Back

PART 7

STRUCTURAL DESIGN

7.1 **GENERAL REQUIREMENTS.** The general and specific criteria detailed herein shall be used for structural loading, design and construction of structural systems and foundations, including manufacturing, erection, supervision, testing and quality assurance of the completed installation of the building(s). Structural calculations shall be checked and initialed by a registered structural engineer other than the original design engineer, prior to submission. All Construction Documents (drawings and specifications) shall be certified by a registered Professional Engineer licensed to perform work in the applicable jurisdiction.

7.2 **STRUCTURAL WORK.** The structural work consists of, but is not limited to, design and construction of:

7.2.1 Building Foundations – Spread footings, continuous strip (wall) footings, piles, drilled piers or others as recommended by the final geotechnical report. Refer to Attachment A for preliminary geotechnical report. **Special Requirements:** All concrete masonry units below grade shall have all cores filled with concrete to prevent water from accumulating. Soils correction, building design and building detailing shall be consistent with maximum allowable settlement criteria of ½" differential settlement and 1" total settlement. This assumption shall be verified with the geotechnical report. The geotechnical report shall supersede in the case of differences.

7.2.2 Ground Floor Slab Systems – Slab-on-grade (anticipated) or structural slab, as recommended by the geotechnical report. **Special Requirements:** All slabs-on-grade shall be reinforced with small deformed reinforcing bars at 12"-16" maximum spacing in lieu of welded wire fabric.

7.2.3 Load Bearing Walls – Including masonry or concrete wall construction acting as primary vertical load carrying members and/or shear walls, and basement walls (if any). **Special Requirements:** Exterior walls shall be brick veneer with CMU backup. Exterior maintenance bay door jambs and headers shall be reinforced concrete frames for increased strength and stiffness. Basement walls resisting lateral earth pressure (if any) shall be reinforced concrete. Arms Vault walls shall be reinforced concrete.

7.2.4 Non-Load Bearing Walls – Including masonry or steel stud wall construction.

7.2.5 Vertical Framing Members – Including steel columns, concrete piers or masonry pilasters.

7.2.6 Horizontal Framing Members – Including roof and floor decks and diaphragms, roof and floor beams, composite floor beams, joists and trusses. **Special Requirement:** Arms Vault ceiling structure shall be reinforced concrete, with a minimum thickness of 8".

7.2.7 Connection Details – All interconnections of structural members including foundations, walls, framing members, slabs, roof deck, etc. The category also includes

all fastening requirements of such details, and any special detailing necessary for seismic and/or AT/FP resistance.

7.2.8 Non-structural connections – Including attachments for architectural, mechanical and electrical elements to the structural systems. Includes any special detailing for attachments of such items for seismic and/or AT/FP resistance.

7.2.9 Site structures and foundations – Including but not limited to retaining walls of concrete or concrete masonry.

7.2.10 Other considerations – Including but not limited to expansion, construction, movement and control joints, changes in floor elevations, and special loads.

7.3 **STRUCTURAL DESIGN CRITERIA.** Structural loads and design shall be in accordance with the International Building Code (IBC) and all codes referenced therein as modified by UFC 1-200-01. Structural loads include all dead, live, snow, wind, seismic, earth, vehicular and hydrodynamic forces as applicable.

7.3.1 **Minimum Live Load Requirements:**

Ground Floor – 100 psf.

Elevated Corridors and Stairwells – 100 psf.

Roof – 20 psf.

7.3.2 Wind Loads: The structure(s) shall be designed for a minimum wind speed of 90 mph, exposure B following the criteria in the IBC or ASCE 7-98. Contractor to confirm use of exposure B (vs. C) prior to submitting proposal.

7.3.3 Seismic Loads: The structure(s) shall be designed using seismic coefficients $S_s = 0.13g$ and $S_1 = 0.06g$. The anticipated site classification is D, which shall be confirmed by the final geotechnical report.

7.3.4 Snow Loads: Ground snow load – 20 psf.

7.3.5 Frost Protection: 3'-0" minimum cover (heated and unheated structures), or as recommended in the final geotechnical report if greater than 3'-0".

7.3.6 Floor Live Loads: All other building floor live loads shall be as determined in accordance with the International Building Code (IBC), as modified by UFC 1-200-01.

7.3.7 Equipment Live Loads: Applicable areas of floor structures shall be designed for the weights, dynamic loads and other effects of wheeled vehicles and any permanently mounted equipment. The Unheated Storage building floor slab shall be designed to support a hard rubber wheeled fork lift of a minimum 8 tons gross vehicle weight.

7.4 **STRUCTURAL SYSTEMS.** The structural systems selected shall conform to all applicable criteria as well as industry standards and commonly accepted methods of practice. Logical alternate foundation and framing systems shall be considered. However, unless otherwise approved by the Government, the Training Center and

Maintenance Building roof structures shall employ steel frame construction, and floor framing shall employ one of the following forms of steel construction:

Steel beams with steel joists, metal deck and concrete fill

Composite steel beams with composite deck and concrete fill, or

Steel frame with concrete plank and concrete topping.

7.4.1 Structural Considerations: The following represent a minimum list of elements to be evaluated and addressed in the selection of any structural system:

7.4.1.1 Total Life Cycle cost effectiveness.

7.4.1.2 Sustainable Design.

7.4.1.3 Constructibility.

7.4.1.4 Experience level and typical systems employed by local contractors and local labor.

7.4.1.5 Availability and use of local materials.

7.5 SPECIAL REQUIREMENTS.

7.5.1 Anti-terrorism / Force Protection: All designs and components of design shall conform to the Department of Defense Anti-terrorism Standards for Buildings, UFC 4-010-01.

7.5.2 Floor Framing shall be designed to prevent excessive vibration by conforming to recommendations and procedures of Steel Joist Institute (SJI) Technical Digest No. 5 and American Institute of Steel Construction (AISC) Design Guide No. 11.

PART 8

DESIGN – THERMAL

8.1 THERMAL CHARACTERISTICS. Building construction shall conform to the requirements of ASHRAE 90.1. The R and U values shall be calculated in accordance with ASHRAE methods.

8.2 THERMAL INSULATION.

8.2.1 Characteristics. 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.

8.3 HUMID AREA DESIGN. An effective infiltration barrier is critical to limiting moisture flow into occupied spaces. In humid areas, interior surfaces of ceilings and exterior walls shall be covered with materials which allow escape of water vapor from inside the walls into the conditioned space to prevent the growth of mold on interior surfaces. The vapor barrier in humid areas shall be located on the outside face of the exterior wall or ceiling insulation.

8.4 INFILTRATION. To limit air infiltration, the core area envelope will be sealed with an air infiltration barrier, installed in accordance with the manufacturer's recommendations. The core area 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.

PART 9

DESIGN – PLUMBING

9.1 DESIGN CRITERIA AND CODES.

9.1.1 Design and install (labor, material, permits, licenses, etc.) the plumbing system. Plumbing system shall be designed, installed, and tested in accordance with design criteria located in Part 2 and the latest edition of the International Plumbing Code (IPC), and all associated local codes. All Electrical work performed by the Mechanical Contractor shall comply with the National Electrical Code (NFPA 70) for workmanship and installation requirements

9.1.2 System design and installation shall conform to the mandatory energy and water conservation criteria in the latest edition of ASHRAE Standard 90.1.

9.1.3 Obtain water hardness from local water department. Water softening equipment will be installed when the water analysis indicates a total hardness exceeding 15.4 g/gal.

9.1.4 Identification. Piping will be identified per ANSI requirements. Equipment is to be identified with engraved and laminated plastic nameplates or black lamicaid sheets with white lettering.

9.1.5 Equipment and materials shall be as specified. Used equipment or materials are not acceptable. Installation shall meet the requirements specified. All materials and equipment shall be the manufacturer's latest design.

9.1.6 Contractor shall comply with seismic requirements in accordance with UFC 4-010-01 requirements.

9.1.7 Systems requiring seasonal drainage shall not be used except for lawn irrigation.

9.1.8 No roof mounted equipment is permitted.

9.1.9 Equipment layout shall make provisions for manufacturer's recommended clearance and code requirements.

9.1.10 The buildings shall have restrooms and other plumbing fixtures. The restrooms shall have all fixtures as outlined in the reference criteria. Freezeproof wall hydrants shall be located on the building exterior.

9.2 DESIGN NARRATIVE AND CALCULATIONS.

9.2.1 Provide a design narrative, which explains in summary form, all of the plumbing, including backup calculations. Fixture quantities will be included within the plumbing calculation. Indicate the building population (number of males and females), fixture determination; fixture units for drainage, venting, cold and hot water piping; roof areas used in determining storm drainage pipe sizes; and the capacities of all equipment

and tanks. Show sizing calculations clearly. Indicate the source of tables used for calculation. Calculations shall be checked for accuracy and initialed or signed by the design professional.

9.2.2 Piping. Design shall be based on the International Plumbing Code for domestic water, sanitary waste and vent piping. All water piping shall be sized in accordance with methods outlined in the International Plumbing Code, to limit water velocity in the pipe to 4 ft/sec unless a lower velocity is recommended by the plumbing fixture manufacturer(s). An isometric diagram of the water system shall be included in the design submittal. An isometric diagram of the sanitary sewer system shall be included in the design submittal.

9.2.3 Hot water heater calculations. Design shall be based on the methods described in the ASHRAE guidelines for the specific building occupancy and usage. Submit calculations for determining storage capacity and recovery rate. Hot water delivered to fixtures shall not exceed 120 degrees F.

9.3 PLUMBING FIXTURES AND EQUIPMENT.

9.3.1 High quality plumbing fixtures with fittings and trim as applicable will be provided in each building. Fixtures shall be water conservation type in accordance with the IPC. Insulate water and waste piping for handicapped lavatories.

9.3.2 Domestic Water Heating Systems.

9.3.2.1 High efficiency storage type water heaters will be provided for each building with a dedicated water heater for the kitchen and shall be located in the mechanical rooms. Domestic water heating is to be a natural gas-fired. The building water supply temperature for the fixtures shall be 120°F. The sizes will be based on ASHRAE guidelines for the specific building occupancy and usage. Water heaters will comply with the energy conservation requirements of ASHRAE Standard 90.1. Water heaters shall be provided with fully automatic controls with safety shutoff relief valves and intermittent spark ignition.

9.3.2.2 The domestic hot water system shall be sized as required to provide adequate hot water for all fixtures that require hot water, including lavatories, sinks, showers, etc.

9.3.2.3 The domestic water system shall be served by a recirculation system to provide hot water at remote fixtures continuously. Provide blending valves as required for scald protection at each fixture or group of fixtures.

9.3.3 Emergency Eyewashes and Showers.

9.3.3.1 Provide combination emergency eyewash and shower stations throughout wheeled vehicle bay, and Battery Room within the OMS Building as required to meet the requirements of ANSI Z358, and OSHA.

9.3.4 Vibration/Noise Isolation.

9.3.4.1 Water hammer arrestors shall be used to minimize water system noise. Velocities in domestic water piping shall be a maximum of 4 ft/sec.

9.3.5 Compressed Air System.

9.3.5.1 Compressed air system shall be UL listed and at a minimum composed of duplex compressors, receiver, dryer, distribution piping, outlet hose reels and filter regulator units. System compressor, dryer, and receiver shall be located in the Mechanical Room within the OMS Building. System shall be designed for a working pressure of 175 psi. The compressed air system shall be sized to accommodate the number of drops as required with a maximum total pressure drop of 5 psi. Each compressed air drop shall be sized to provide 0.5 cubic ft./minute. Compressor shall be sized for full connected load with a 60% diversity allowance. Provide 3/4" diameter x 50 feet long hose and hose reel at each location. Provide a line size ball type shutoff valve, pipe drip with ball valve drain, a line oiler, a coalescing oil/water filter, and a pressure regulator upstream of each hose reel or connection to equipment. Hose reels shall be provided with quick disconnects. Contractor shall coordinate quick disconnect requirements with the Contracting Officer.

9.4 PIPING SYSTEMS.

9.4.1 Domestic Water Piping System.

9.4.1.1 A separate domestic water service shall be brought into the mechanical room of each building. Water service outside of the 5'-0" line of the building are to be specified under the civil portion of the design criteria. Isolation shutoff valves will be provided. Buildings shall be metered by one meter within an exterior pit serving both buildings. Plumbing piping is sized to accommodate flush valve plumbing fixtures. Copper piping will be provided for the domestic water system. Under slab supply piping shall be limited to service entrance only.

9.4.1.2 The mechanical piping shall be extended to fixtures, outlets, and equipment. The domestic hot water and cold water piping shall be arranged and installed to permit draining. The supply line to each item of equipment or fixture, except faucets, flush valves, or other control valves, which are supplied with integral stops, shall be equipped with an accessible shutoff valve to enable isolation of the item for repair and maintenance without interfering with operation of other equipment or fixtures. Supply piping to fixtures, faucets, hydrants, shower heads, and flushing devices shall be anchored to prevent movement. Insulate all domestic cold water, domestic hot water and recirculating water systems.

9.4.1.3 Provide line sized isolation valve at each branch connection. Locate valve as close as possible to branch takeoff. Provide isolation valves at each fixture.

9.4.1.4 Access panels/doors shall be provided as required for valves and appurtenances of the plumbing system. Coordinate with the General Contractor to ensure that provisions for access panels/doors are provided.

9.4.2 Sanitary Drain, Waste, and Vent Piping Systems.

9.4.2.1 Piping systems for the sanitary sewer outside of the 5'-0" line of the building are to be as specified under the civil portion of the design criteria. Runs are to be kept as short as possible. Metallic vent piping shall be used through the roof from at least 6 inches below the roof to the required point of termination above the roof.

9.4.2.2 All lavatory and sink drains and P-traps shall be coordinated with architectural millwork to isolate drains. The building sanitary sewer shall be designed in accordance with the International Plumbing Code. Coordinate location of floor sinks and floor drains with the structural discipline for floor sloping requirements. All floor sinks and floor drains shall be equipped with trap primers. Provision shall be made to collect condensate from the condensate drains and drain to the sanitary sewer system.

9.4.2.3 Provide connections to sand interceptor integral to trench drains at low point in service bay. Trench drains shall be served by oil/water separators before discharging to the sanitary sewer. Provide floor drain at eyewash/safety shower locations. Provide floor drains in mechanical rooms near each boiler, air handling unit, pumps, and water heater.

9.4.2.4 Provide a capped sanitary sewer branch for connection of a possible future kitchen within the Training Building in the area of the future kitchen.

9.4.3 Industrial Water Piping Systems.

9.4.3.1 Provide industrial water system to provide water service to wheeled vehicle bay. Industrial water system shall be supplied from the domestic water system and be provided with a reduced pressure type backflow preventer between the industrial water system and domestic water system. Industrial water system shall be sized per International Plumbing Code and shall meet all of the requirements of the domestic water system. Provide 3/4" diameter x 50 ft. hose and hose reel at each location. Provide a line size isolation valve upstream of each hose reel. Insulate all industrial cold water systems.

9.4.4 Natural Gas Piping System.

9.4.4.1 For each building (except Unheated Storage Buildings), design, furnish, and install natural gas piping from new utility connection to mechanical gas fired equipment. Provide complete design and layout of piping system coordinated with new utilities. The complete gas piping installation shall conform in all respects to NFPA 54.

9.4.4.2 Natural gas piping shall be sized for a minimum pressure of 2 psig at inlet to the buildings. Natural gas piping shall be sized in accordance with NFPA 54. Design building gas piping distribution system based on a 2 psig pressure downstream of the gas meter and pressure regulator.

9.4.4.3 The gas piping, from the gas meter to the equipment, shall be black steel conforming to ASTM A120 or ASTM A53 with fittings of malleable iron conforming to ANSI B16.3. Piping connections to all gas burning equipment shall be made with rigid pipe and fittings. All gas risers shall be anodeless.

9.4.4.4 A ball type gas shutoff valve and coupling shall be provided in an easily accessible place in the gas line to each gas-fired equipment item.

9.4.4.5 A gas pressure regulator shall be provided for each piece of gas-fired equipment to reduce the gas pressure from 2 psig to the pressure required by the gas-fired equipment. Vent shall be piped to the outside of the building.

PART 10

DESIGN – ELECTRICAL

10.1 **DESIGN CRITERIA AND CODES.** The electrical system shall be designed in compliance with design criteria listed in Part 2 and the rules and recommendations of ANSI C2, National Electrical Safety Code; NFPA 70, National Electrical Code (NEC); NFPA 72, National Fire Alarm Code; NFPA 101, Life Safety Code; NFPA 780, Lightning Protection Systems; IES (Illuminating Engineering Society) Lighting Handbook; ANSI/EIA/TIA 568-B Commercial Buildings Telecommunications Cabling Standard, and applicable state and local codes.

10.1.1 Comply with the requirements and recommendations of UFC 4-171-05, Design Guide for U.S. Army Reserve Facilities.

10.1.2 Provide calculations as required by UFC 4-171-05 and as otherwise required to substantially justify the systems design.

10.1.3 Seismic Protection. Provide seismic protection for electrical equipment and electrical systems as required for the project seismic zone in accordance with applicable local code.

10.2 **DESIGN CALCULATIONS.** Provide calculations for the following:

10.2.1 Interior Lighting. Provide calculations for each room or area.

10.2.2 Exterior Lighting. Provide calculations for all site lighting to include parking areas, walkways, roadways, and security.

10.2.3 Load Analysis. Provide load analysis for the building to include connected and estimated demand. Separate loads by categories such as lighting, receptacles, HVAC, special equipment, etc.

10.2.4 Fault Analysis. Provide short circuit calculations for electrical system(s).

10.2.5 Voltage Drop. Provide calculations to verify voltage drops. Do not exceed limits as given in the National Electrical Code (NEC) or UFC 4-171-05 whichever is more stringent.

10.2.6 Coordination. Provide data to verify proper protection and coordination is provided for the equipment system(s).

10.3 **MATERIALS AND EQUIPMENT.** All materials and equipment shall be the standard catalogued products of manufacturers regularly engaged in the production of such equipment and material, and shall be the manufacturer's latest design. All equipment and material shall conform to the requirements of American National Standards Institute (ANSI), American Society of Testing and Materials (ASTM), National Electrical Manufacturer's Association (NEMA), National Fire Protection Association (NFPA) or other national trade association as applicable. Where standards exist,

materials and equipment shall bear the label and be listed by Underwriters Laboratories, Inc. (UL) or other Nationally Recognized Testing Laboratory (NRTL) per the NEC.

10.3.1 All 120 volt motors shall have integral thermal overload protection when available. If integral thermal overload protection is not available, provide manual thermal overload starters. Provide combination motor starter–disconnect controllers for polyphase motors. Provide reduced voltage starters for motors over 25 HP. Coordinate starter type with motor design and starting torque requirements.

10.3.2 Provide disconnect switches for all motors and equipment in accordance with the NEC. Provide motor-rated toggle switches for 120 volt motors with integral thermal overload protection. The manual starter may serve as the disconnect for 120 volt motors without integral thermal overload protection when properly located. Combination motor starter-disconnect controllers may serve as the disconnect for polyphase motors when properly located. Provide additional non-fused disconnect switches within sight of the motor when the starter-disconnect cannot be placed within sight of the motor.

10.3.3 Motor Efficiencies. Minimum motor efficiencies shall be either Energy Star or in accordance with DOE Buying Energy Efficient Products Recommendations (refer to www.eren.doe.gov/femp/procurement for recommended efficiencies). Provide premium efficiency motors where possible. Premium efficiencies shall meet or exceed the specifications of Baldor Super-E Products. Applications which require definite purpose, special purpose, special frame, or special mounted polyphase induction motors are excluded from these efficiency requirements.

10.3.4 Provide a Motor Control Center (MCC) for mechanical rooms or equipment rooms/areas where there are four or more polyphase motors and/or equipment that require starters. Locate the MCC in the mechanical room or equipment area.

10.4 **ELECTRIC POWER DISTRIBUTION.** Dedicated Electrical Equipment Space: The main electric room in each building shall be sized and organized to accommodate the main switchboard, space for an additional (future) distribution section, metering equipment, distribution transformer(s), distribution board(s), panelboard(s), space for 20% (not less than one) additional (future) panelboard(s), fire alarm control panel, lighting control equipment, and additional equipment as required. Coordinate access and egress requirements and location relative to the service transformer. Electrical equipment dedicated space and working space shall be in compliance with the NEC.

10.4.1 Main Switchboard. The main switchboard will be service entrance rated and shall have the neutral bus connected to the ground bus by a properly sized main bonding jumper. The main switchboard shall have circuit breakers serving large loads such as distribution boards, panelboards, motor control centers, elevators, and large equipment.

10.4.2 Panelboards shall be located to minimize voltage drop, to efficiently serve equipment, and to provide system flexibility. Coordinate locations with other disciplines to avoid conflicts. Electrical equipment dedicated space and working space shall be in compliance with the NEC. In the OMS Building, panelboards serving the Maintenance Bay should be placed in the Maintenance Bay and shall have additional excess capacity to serve two future small welders.

10.4.3 Distribution Transformers. Size for the load calculated per the NEC plus 25% excess capacity. Nonlinear Loads: In all areas with raised floors and in areas (including but not limited to open office spaces and computer center) where nonlinear load type equipment predominates, such as computers, printers, uninterruptible power supply (UPS), motors with variable speed drives, electronic ballasts and dimmers and other similar loads, IEEE Std. 1100 "Power and Grounding Sensitive Electronic Equipment", and IEEE Std. 519 "Practices and Requirements for Harmonic Control in Electrical Power Systems" shall be used as design guides. Provide "K" factor rated transformers as required for the anticipated harmonic load. Identify the "K" factor rating for each transformer. Locate in electrical rooms and provide proper ventilation and cooling. Provide energy efficient transformers meeting NEMA TP-1 Standards. Distribution transformers constitute separately derived systems and shall have the neutral bonded at the transformer or at the first overcurrent device in accordance with the NEC. The bonding point will be connected to the nearest suitable standing electrode with a grounding electrode conductor per the NEC.

10.5 **POWER AND GROUNDING.**

10.5.1 General Purpose Receptacles. General purpose receptacles are in addition to the special purpose and dedicated outlets for special equipment.

10.5.1.1 Provide a minimum of one general purpose 120 volt, 20 ampere duplex receptacle outlet in each room.

10.5.1.2 Offices. Provide a minimum of one general purpose receptacle on each wall. In offices where walls exceed 12 feet, provide an additional duplex receptacle for each additional 12 feet of wall or fraction thereof. Receptacle spacing shall not exceed 12 feet.

10.5.1.3 Provide receptacles or power connections for utilization equipment included in the project as well as equipment furnished by the Government and others associated with the project. Government furnished utilization equipment may include (but is not limited to) computers, fax machines, printers, photo-copy machines, office equipment, vending machines, kitchen equipment, computer network equipment, security system equipment, card readers, motorized gates, general maintenance equipment, vehicle maintenance equipment, battery chargers, and military equipment. Equipment furnished by others may include (but is not limited to) vending machines. Provide one combined 120 volt duplex power/data/phone outlets per workstation in classrooms and team rooms. Provide one combined 120 volt duplex power/data ceiling mounted outlet for future video projector in each classroom (coordinate location).

10.5.1.4 Receptacles located in hazardous areas shall be mounted at a minimum of 18 inches above finished floor in vehicle maintenance and battery areas. Electrical outlets, devices and equipment located in battery room or mounted at or below 18 inches AFF in vehicle maintenance areas shall meet NFPA 70, Article 511, Class 1, Division 2. Receptacles shall not be placed in flammable storage areas. Receptacles in the battery room shall be controlled by the room's fan switch.

10.5.1.5 Provide one double duplex receptacle in each separate area of UHS.

10.5.2 Provide multi-outlet raceway above workbenches with receptacles 12 inches on center in computer (ARNET/NOC/RCAS), Armorer and electrical/communication/repair rooms. Provide a dedicated, isolated ground circuit for each multi-outlet raceway.

10.5.3 Workstations. Provide each stand-alone, non-system furniture workstation with an additional adjacent duplex receptacle on an independent single phase, 20 ampere, 120 volt circuit having not more than four duplex receptacles and a nonshared neutral.

10.5.3.1 Provide each stand-alone, system furniture workstation with an additional adjacent double-duplex receptacle on an independent single phase, 20 ampere, 120 volt circuit having not more than five duplex receptacles and a nonshared neutral.

10.5.3.2 Provide each group of four (or fraction thereof) modular, system furniture workstations with an eight (8) wire furniture feed consisting of a normal "dirty" power circuit triplet (three (3) independent single phase, 20 ampere, 120 volt circuits with shared neutral and normal equipment ground) and a "clean" power circuit (one (1) independent, single phase, 20 ampere, 120 volt circuit with separate neutral and an isolated equipment ground).

10.5.3.3 Provide power through adjustable, multiple service floor outlets or fire rated poke-throughs for equipment and appliances in the Unit Commons areas when the equipment is to be placed on worktables, counters, systems furniture, or cabinets that are not against fixed walls. Each team area shall be provided with a minimum of four floor outlets to serve groups of tables in the center of each team area.

10.6 INTERIOR LIGHTING.

10.6.1 Efficiency. Interior lighting shall be both efficient and color corrected, Color Rendering Index (CRI) of 85 or better and a standard lighting color of 3500 K required. Minimum efficiency standards for lighting shall be as follows:

10.6.1.1 Fluorescent tubes, 4 feet and longer: 90 lumens/watt.

10.6.1.2 Fluorescent tubes less than 4 feet: 80 lumens/watt.

10.6.1.3 Compact fluorescent and other lamps: 50 lumens/watt.

10.6.2 Lighting levels for the individual areas shall conform to those indicated in UFC 4-171-05 and IES recommendations. The light fixtures to be used for each functional area are scheduled in Appendix C of this Section 01020. The fixtures scheduled represent the minimum quality and type for each functional area. Additional types of fixtures and fixtures of higher quality may be introduced as necessary to meet the design intent and to accommodate specific user needs. Provide upgraded architectural fixtures in the main entry to enhance the open two story entry space.

10.6.3 Batteries for emergency lighting fixtures and battery fluorescent ballasts shall have a minimum warranty of five years and a minimum expected battery life of 10 years. Battery fluorescent ballast shall provide a minimum of 1100 lumens continuously for 90 minutes.

10.6.4 The security light required outside the Arms Vault shall be vandal resistant and shall be equipped with a backup power source. It shall not be switched.

10.6.5 Light switches shall be 20 amp, 120/277 volt AC, specification grade.

10.7 **TELECOMMUNICATIONS.**

10.7.1 Provide a complete telephone system. Provide the services of a Registered Communications Distribution Designer (RCDD) to design the system in compliance with MIL HDBK 1012/3.

10.7.2 Telephone Switching. The Contractor shall engineer, design, furnish, install, and test a Private Automatic Branch Exchange (PABX) that will provide complete telecommunication service for the facility. The PABX will consist of a digital PABX and shall be capable of interfacing with future Call Accounting Systems and integrated Voice Messaging Systems. The PABX will include the basic switching system, attendant consoles, system maintenance terminal, subscriber line circuit equipment, trunk circuit equipment (digital and analog), station terminal equipment, reserve power equipment (digital and analog), station terminal equipment, reserve power equipment and all other ancillary equipment and software as required for a complete system. Station equipment to be supported on a single cable pair. The PABX is to have the ability to accommodate current and foreseeable technological advances such as video transmission, and open architecture features that allow the system to integrate with peripheral systems such as Automatic Call Distribution (ACD), Call Accounting, Voice Mail, Interactive Voice Response, Fax Mail, Telecommunication Management, and other application dependent systems.

10.7.3 Provide backboards, equipment racks, 110 type punchdown blocks, conduit sleeves, and corridor cable tray system. Size pathway system, racks and equipment for complete utilization of the service entrance cables and all telephone and data outlets plus room for minimum of 50% growth. Provide a minimum of two equipment racks at the head end and one minimum in each satellite closet.

10.7.4 Provide telephone outlets in spaces noted in UFC 4-171-05.

10.7.5 Provide a wall mounted telephone in vestibule, programmed to dial only selected inside extensions; provide a similar wall mounted telephone with weatherproof enclosure, programmed to dial only selected inside extensions at the remote electrically-actuated loading dock gate.

10.7.6 Provide a minimum of one (1) telephone outlet per workstation.

10.7.7 Provide telephone services through adjustable, multiple service floor outlets or fire rated poke-throughs for telephone outlets in the Unit Commons areas for worktables (one outlet for each four authorized workstations), counters, systems furniture or cabinets that are not against fixed walls.

10.7.8 Provide a minimum of two (2) telephone outlets in each private office.

10.7.9 Telephone outlets for workstations shall be mounted in a standard, dual telephone/data outlet. This standard outlet consists of a telephone jack on the bottom

half of a cover plate and a data jack on the top half of the same cover plate. Provide two-gang deep, backboxes with two 1-inch minimum conduit stubbed into accessible corridor/common area ceiling space adjacent to cable tray. Provide minimum of two 1¼-inch flexible connection to modular furniture.

10.7.10 Provide 8-pin, RJ-45 Type, Category 6 connectors at each telephone outlet including those in modular furniture.

10.7.11 Provide a Category 6, unshielded, twisted pair, 8 conductor copper cable from each voice jack to the nearest telecommunications closet. Label each end of each cable per the Government's direction.

10.7.12 Terminate telephone cables at the jack and the punchdown block in the main telecommunications room in accordance with ANSI/TIA/EIA-568-B configuration T568-A. Test cables in accordance with ANSI/TIA/EIA-568-B.

10.7.13 Provide copper Category 6 backbone cable between each telecommunications closet and the main telecommunications room (NOC/RCAS/ARNET). The number of pairs is determined by MIL HDBK 1012/3 for the number of outlets served by the satellite telephone closets. Test cables in accordance with ANSI/TIA/EIA 568-B.

10.7.14 Provide all jumpers, cross connects, patch cords, and accessories necessary for a complete telephone system.

10.7.15 Provide a minimum of 29 telephone instruments. Provide 24 single line instruments, two multi-line instruments, one ISDN, and two explosion-proof instruments.

10.7.16 Provide multi-line, executive type desktop speaker phones for the authorized quantity of private offices. Provide type compatible with and supported by the local service provider system.

10.7.17 Provide single line, desktop, standard telephones for standard workstations.

10.7.18 Provide single line, wall mount standard telephones for designated locations.

10.7.19 Government required telephone system features for each active line: private voice mail; voice mail transfer; voice mail forward/copy; direct, four digit extension dial within facility; multi-line executive type speaker phone support.

10.8 DATA CABLING SYSTEMS.

10.8.1 Communications – Data Cabling System. Provide the services of a Registered Communications Distribution Designer (RCDD) to design the data cabling system in compliance with MIL HDBK 1012/3.

10.8.2 Provide equipment racks, and 110 type patch panels. Conduit sleeves and cable tray are as described for the telephone system. See system sizing under Communications – Telephone System above. Provide a minimum of two data racks at the head end and one in each satellite closet.

10.8.3 Provide data outlets in spaces noted in UFC 4-171-05.

- 10.8.4 Provide a minimum of one (1) data outlet per workstation.
- 10.8.5 Provide a minimum of two (2) data outlets in each private office.
- 10.8.6 Maintenance offices require two (2) data outlets at the workstation.
- 10.8.7 Each tool and parts storage room in the OMS Building requires one (1) data outlet.
- 10.8.8 Provide data cables through adjustable, multi-service floor outlets or fire-rated poke-throughs for data outlets in the Unit Commons areas for worktables (one outlet per four authorized workstations), counters, systems furniture or cabinets that are not against fixed walls.
- 10.8.9 Provide 8-pin, RJ-45 Type, Category 6 connectors at each data outlet including those in modular furniture. The data and telephone outlets may share a common backbox with separate conduits for each system.
- 10.8.10 Provide Category 6, unshielded, twisted pair, 8 conductor copper cable from each data jack to the nearest telecommunications closet. Label each end of each cable per the Government's direction.
- 10.8.11 Terminate data cables at the jack and the patch panels in the main telecommunications room in accordance with ANSI/TIA/EIA-568-B configuration T568-A. Test cables in accordance with ANSI/TIA/EIA-568-B.
- 10.8.12 Provide 24 strand single mode fiber optic backbone cable between each telecommunications closet and the main telecommunications room. Terminate cables in fiber optic patch panels at both ends. Test circuits for insertion loss at both ends at 1310 and 1550 nm. Perform high-resolution Optical Time Domain Reflectivity (OTDR) tests on each fiber at one end.
- 10.8.13 Provide a minimum #6 copper equipment grounding electrode conductor from the electrical service ground bus to the NOC/ARCAS/ARNET and to each satellite data closet. Provide these wires with no splices and with adequate slack to reach any point in the respective rooms.
- 10.8.14 The requirements of MIL HDBK 1012/3 Appendix A shall also apply to Category 6 cabling.
- 10.9 **SPECIAL SYSTEMS.**
- 10.9.1 Provide cathodic protection for ferrous metal pipes if required by analysis of soil pH and resistivity.
- 10.9.2 Lightning Protection.
- 10.9.2.1 Provide UL Master Lable lightning protection system for both buildings.
- 10.9.3 Public Address (PA) Systems. In addition to the PA system required by UFC 4-171-05 for the Assembly Hall, an AT/FP type PA system is required by UFC 4-010-01. Locate both systems in the Facility Maintenance Room.

10.9.4 AT/FP type PA system shall be a single zone, all call, public address system independent from, but accessed by, the telephone system. It shall annunciate clearly in all interior spaces and in the MEP area. The AT/FP PA system shall mute the Assembly Hall PA system and annunciate in that space via separate speakers.

10.9.5 Electronic Security Systems. There are two (2) separate security systems for this project, a Government provided IDS and a Contractor provided ECS.

10.9.6 IDS: Provide empty conduit system for intrusion detection system (IDS) in arms vaults. Provide backboxes and conduit for sensors, switches, controllers, and alarms as required. Provide conduit for exterior alarm bell. Provide continuous rigid conduit from controller to NOC or telephone room as required. Provide power supply for the Government provided IDS controller. Coordinate locations and requirements with the using agency. Locate alarm control junction box outside caged area, but within vault. The IDS is furnished and installed by the Government.

10.9.7 ECS: Provide an Entry Control System (ECS). This is a complete system provided by the Contractor with the following major components:

10.9.7.1 Microprocessor Control: Provide central station equipment including a digital computer with the necessary memory, power supply, clock, parts, keyboard, mouse, disk storage, modem, CD-ROM drive, printer, UPS, and software to control, operate, and annunciate the system.

10.9.7.2 Entry Control Local Processor: Provide local entry control processing hardware, software devices, and wiring to communicate between the central station equipment and entry control devices such as card readers, door contact switches, and electric door strikes.

10.9.7.3 Card Readers: Provide proximity type card readers at selected exterior doors. The selected doors are the front (main) entrance, loading dock mandoor, Assembly Hall front entrance and "controlled" POV parking area gate. Provide credential cards and card modification equipment.

10.9.7.4 Provide card readers and associated equipment for entry control at the following doors: loading dock man door, maintenance, and Assembly Hall stair exit.

10.9.7.5 Door Contact Switches: Provide Balanced Magnetic Switch (BMS) assemblies at all exterior doors.

10.9.7.6 Electric Door Strikes: Coordinate with door hardware. Provide power and control wiring as required to support the selected entry control scheme.

10.9.7.7 Provide hardware, software, wiring, devices, control interfaces, credential cards, and testing as required for a complete system acceptable to the Government.

PART 11

DESIGN – HVAC

11.1 DESIGN CRITERIA AND CODES.

11.1.1 Design and install (labor, material, permits, licenses, etc.) the HVAC systems. HVAC systems shall be designed, installed, and tested in accordance with design criteria located in Part 2 and the latest edition of the International Mechanical Code (IMC), and all associated local codes. All Electrical work performed by the Mechanical Contractor shall comply with the National Electrical Code (NFPA 70) for workmanship and installation requirements.

11.1.2 HVAC control schemes and sequences shall meet the requirements of ASHRAE Standard 90.1-2000, Energy Standard for Buildings – Except Low-Rise Residential Buildings.

11.1.3 The Contractor is responsible for obtaining any available rebates from the Utility and crediting those rebates to the Government in the bid.

11.1.4 Identification. Piping shall be identified per ANSI requirements. Equipment shall be identified with engraved and laminated plastic nameplates or black lamicaid sheets with white lettering. VAV units are to be labeled at their underside to allow identification after installation.

11.1.5 Heating installations shall include pressure stack or natural-draft class B vent as required by the application.

11.1.6 The design of HVAC systems with respect to noise and vibration control shall be in accordance with ASHRAE standards. Acoustical duct liner is only used on low pressure return systems where privacy is a concern.

11.1.7 Exhaust vents for all buildings shall not be located near outdoor air intakes in accordance with code requirements to prevent short-circuiting of exhaust air, nor shall they be located less than 10 feet above grade.

11.1.8 For each building, provide rough-in for the radon ventilation system. Exhaust fans shall be installed in the future if testing indicates that radon exhaust is required.

11.1.9 All materials and equipment shall be the standard cataloged product of manufacturers regularly engaged in production of such materials and equipment, and shall be the manufacturer's latest standard design.

11.1.10 No roof mounted equipment is permitted.

11.2 DESIGN CALCULATIONS.

11.2.1 Load Calculations. Heat gain and loss calculations shall be, at a minimum, in accordance with the current edition of the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Handbook of Fundamentals and the latest edition of the ASHRAE Cooling and Heating Load Calculation Manual. The load calculations shall be in accordance with ASHRAE Non-residential Cooling and Heating Load Calculations. Calculations shall be performed on a room-by-room basis. Heating load calculations shall not consider lights or internal loads as supplementing the heating system. Clearly describe the features of the systems being used. Demonstrate compliance with ASHRAE 90.1 by completing the proper compliance forms available from ASHRAE. Summarize the outdoor and indoor design conditions used. State the design objectives and design assumptions. Outline design decisions made that affect the operation and maintenance of the systems. Provide all calculations used to size all equipment. Calculations shall be checked for accuracy and initialed or signed by the design professional. The method of zoning the building spaces used for computerized building load calculation input shall be clearly shown as part of the calculations.

11.2.2 The cooling coil load shall be calculated at the Outside Design Condition and at the High Wet Bulb Condition. The equipment shall be designed for the greater of the two cooling loads.

11.2.3 Outside Design Conditions. Obtain outside design conditions for cooling and heating from UFC 3-400-02, Engineering Weather Data, and in accordance with UFC 4-171-05 Design: Guide for Army Reserve Facilities. The 1% dry bulb temperature with mean coincident wet bulb temperature shall be used for the Cooling Coil Outside Design Condition. The 1% wet bulb temperature with mean coincident dry bulb temperature shall be used for the Cooling High Wet Bulb Condition. The 99% dry bulb temperature shall be used for the Heating Outside Design Condition.

11.2.4 Indoor Cooling - Design Conditions: 75 degrees F at 50% relative humidity. This does not apply to storage rooms, toilets, showers, and arms vault rooms, which do not receive direct comfort cooling.

11.2.5 Indoor Heating - Design Conditions: 68 degrees F occupied, 55 degrees F unoccupied. This does not apply to storage rooms, mechanical, electrical, and telephone rooms, which are heated to 55 degrees F.

11.2.6 Occupancy Loads. The sensible and latent loads for the occupied spaces will be in accordance with the ASHRAE Handbook – Fundamentals. The number of people is determined by using UFC 4-171-05 and ASHRAE recommendations.

11.2.7 Lighting Load. Fixture count and heat release data will be used to calculate the lighting loads in each space.

11.2.8 Equipment Loads. A 1.5 watt per square foot allowance will be included for open office and classroom spaces. A 450 watt allowance will be included for each workstation in private and semi-private offices.

11.2.9 Toilets and showers will be exhausted at a minimum of 10 air changes per hour. Mechanical rooms will be provided with a minimum of 2 air changes per hour or as required to remove excessive heat. Unit storage is ventilated at 1 air change per hour. The arms vault and other specific areas are designed in accordance with UFC 4-171-05.

Exhaust ventilation shall be provided within vehicle maintenance bay at a rate of 1.5 cfm/sq. ft. Local vehicle exhaust within the OMS vehicle maintenance bay shall be provided, with individual fans serving each vehicle exhaust hose reel.

11.3 HVAC SYSTEMS – TRAINING CENTER AND SIMILAR BUILDINGS

11.3.1 A minimum of two gas-fired cast iron forced draft boilers will provide heat for the building, each boiler sized for 65% of the total calculated heating load plus 10%. This allows some standby capability when a boiler is down for service. Each boiler will have an inline primary boiler circulation pump. Heat will be delivered to the various spaces with a secondary building heating pump through the hot water heating piping system with distribution to the air handling units, VAV terminal reheat coils, cabinet unit heaters and unit heaters. A standby secondary building heating pump will be provided. Both secondary pumps will be provided with a variable frequency drive. Propylene glycol will be used to provide heating water freeze protection. Contractor will install proper percentage of glycol antifreeze as required for specific outdoor design conditions; applicable system use; and in accordance with glycol manufacturer's recommendations for application freeze or burst protection. The hot water supply temperature is 190 degrees F, and the hot water return temperature is 160 degrees F.

11.3.2 An air-cooled rotary screw packaged water chiller, located on grade adjacent to the building, will provide cooling for the building. A primary chiller pump will circulate water through the chiller. A secondary building chilled water pump will distribute chilled water through the piping system to cooling coils in the air handling units. No standby secondary building chilled water pump will be provided. The secondary pump will be provided with a variable frequency drive. Propylene glycol will be used to provide chilled water freeze protection. Contractor will install proper percentage of glycol antifreeze as required for specific outdoor design conditions; applicable system use; and in accordance with glycol manufacturer's recommendations for application freeze or burst protection. The chilled water supply temperature is 44 degrees F and the chilled water return temperature is 58 degrees F.

11.3.3 Heating, cooling and ventilation for the building is to be provided through VAV air-handling units by means of an outside air duct connected to each unit mixing box module. The outside air shall connect to the top of the mixing box, and the return air shall connect to the bottom of the mixing box. The outside air and relief air ducts will be sized for economizer operation of the air-handling units. Supply air is to be distributed to each zone using VAV terminals, each with a terminal reheat coil. The VAV terminal modulates the airflow into the zone to maintain the zone space temperature setting. Return air is transferred from each room into the ceiling return plenum and returned to each unit through branch return air ductwork via a return/exhaust fan. The return/exhaust fan relieves air from the building and returns the remaining air to the air-handling unit. The building will be maintained at a slight positive pressure. Ventilation will comply with ASHRAE Standard 62 – Ventilation for Acceptable Indoor Air Quality. Contractor shall utilize alternate ventilation exception to reduce outside air requirements in Assembly Room.

11.3.4 Provide separate dedicated airflow ventilation systems for mail rooms in accordance with UFC 4-010-01.

11.3.5 The locker rooms will be directly air conditioned from the central air handling system. The toilet and shower areas will not be directly air conditioned. Air will be transferred from the locker rooms into these areas. Exhaust fans will relieve air from these spaces maintaining a slight negative pressure for odor control.

11.3.6 Provide dedicated split system DX refrigerant air conditioning for the telephone rooms and computer server rooms. Recirculating DX air conditioning unit will be located in ceiling space of rooms. Air-cooled condensing units will be located outdoor at grade.

11.3.7 The storage areas will be ventilated during the summer using a wall-mounted outdoor air intake damper and wall-mounted exhaust fans. Space-mounted hot water unit heaters will provide heat to the area.

11.3.8 Provide hot water heating cabinet unit heaters for the vestibule areas

11.3.9 Vault areas will have an automatic self-contained portable dehumidifier.

11.3.10 A direct digital control (DDC) automatic temperature control system will be provided to control and monitor all HVAC systems. Provide an emergency air distribution shutoff switch in accordance with UFC 4-010-01.

11.4 **HVAC SYSTEMS – OMS BUILDING**

11.4.1 Gas-fired infrared radiant heaters suspended from the roof structure will provide heat for the maintenance bay.

11.4.2 Office and administration heating and cooling are to be provided through single zone gas-fired furnace fan coil units with DX refrigerant cooling and remote grade mounted air-cooled condensing units. Ventilation for units to be supplied through outside air connection to furnace fan coil unit return duct. Toilet rooms located at perimeter of building to have supplemental electric baseboard heating.

11.4.3 The controlled waste and flammable storage rooms are to be heated using explosion-proof electric unit heaters with remote wall-mounted thermostats.

11.4.4 Toilet rooms will not be directly cooled. Air will be transferred from the adjacent ceiling plenum space or room into these areas.

11.4.5 Tool, parts and supply rooms are to be heated with a dedicated single zone gas-fired furnace. Ventilation for units to be supplied through outside air connection to furnace.

11.4.6 The NOC and other information technology (IT) spaces will be cooled with a dedicated split system air conditioning unit with an air-cooled condensing unit located on grade, adjacent to the building. Temperature sensors and remote alarm lights will be provided for the spaces. Electric baseboard radiation to be provided for rooms located at perimeter of building.

11.4.7 Exhaust Systems.

11.4.7.1 Provide individual exhaust systems at each vehicle bay within the OMS Building with individual hose reel drops for each exhaust fan. Each fan shall be controlled by a manually operated switch located within the wheeled vehicle bay served by the fan. Each fan shall be sized to serve the anticipated vehicles being maintained. Makeup air for the individual vehicle tailpipe exhaust is to be provided by a wall-mounted intake louver and interlocked damper. This air is tempered by the gas-fired infrared radiant heaters.

11.4.7.2 Provide a general exhaust system for the vehicle maintenance bay within the OMS Building. The general exhaust system shall be sized for a minimum of 1-1/2 cfm/sq. ft. Direct digital control (DDC) system shall start general exhaust system when either the level of carbon monoxide is detected above set point, or the level of nitrogen dioxide is detected above set point as determined by gas monitors.

11.4.7.3 A natural gas direct-fired makeup air system for the general exhaust shall be provided for the OMS Building vehicle bay. Provide 10 percent less capacity than exhaust system to maintain a slightly negative pressure in the space. Makeup air system shall temper outside air to the space design heating temperature at a minimum. Carbon monoxide and nitrogen dioxide sensors shall initiate general exhaust and makeup for the maintenance bay. The make-up air unit shall be interlocked with the general exhaust system for the maintenance bay.

11.4.7.4 Provide gas monitoring system to monitor the OMS Building wheeled vehicle bay for carbon monoxide and nitrogen dioxide. Provide minimum of one carbon monoxide sensor, and one nitrogen dioxide sensor for each 5,000 sq. ft. of floor area. Provide local wall-mounted audible alarm with manual off switch to signal high contaminant levels.

11.4.7.5 Provide Battery Rooms with a dedicated exhaust fan interlocked with the battery charger so that the charger will not operate without ventilation. A wall-mounted fan switch with timer shall control each fan. Provide fan motors outside the battery room. Each blower shall have a non-sparking fan. Size the exhaust fan as follows, but not less than 1.5 cfm/sq.ft.:

$$Q = 0.053 \times I \times N$$

where,

Q = required ventilation rate in cfm

I = 0.21 x capacity of the largest battery in amp-hrs

Or

I = 0.25 x maximum obtainable amperes from the charger whichever is greater

N = the number of 2-volt cells (A 12-volt battery has six 2-volt cells)

11.4.7.6 Exhaust fans interlocked with ducted outside air dampers will provide ventilation for the non air-conditioned areas.

11.4.8 An electronic control system will be provided to control all HVAC systems.

11.5 **HVAC SYSTEMS – UNHEATED STORAGE BUILDINGS.**

11.5.1 There are no mechanical heating or ventilating system requirements within these buildings.

11.6 DUCTWORK, PIPING AND ACCESSORIES.

11.6.1 Duct System Design.

11.6.1.1 The ductwork shall be sized using the static regain design method. Duct locations shall be coordinated with all disciplines. Insulate ductwork as required.

11.6.1.2 Flexible duct shall be insulated metallic and shall be limited to 5'-0" spans.

11.6.1.3 Provide duct access panels before and after all duct mounted equipment.

11.6.2 Fire Dampers and Smoke Dampers.

11.6.2.1 Fire dampers and smoke dampers shall be fire rated according to the areas being protected. Fire dampers and smoke dampers shall conform to the requirements of NFPA 90A, UL 555, and UBC. Fire dampers and smoke dampers shall be installed in accordance with NFPA 90A.

11.6.3 Hydronic and Refrigerant Piping.

11.6.3.1 Hydronic piping shall be designed to be efficient, easily hydraulically balanced, and accessible. Riser piping located in interior partition or exterior walls is prohibited. Refrigerant pipe risers shall be installed within two-hour rated chases. Insulate hydronic and refrigerated piping systems.

11.6.4 Access Panels.

11.6.4.1 Access panels/doors shall be provided as required for valves and appurtenances of the HVAC system. Coordinate location with the Architectural discipline to ensure provisions for access panels/doors.

11.6.5 Water Quality and Treatment.

11.6.5.1 The Contractor shall provide an automatic water treatment system for heating solution boilers and heating solution feed water and makeup water systems. Provide shot feeder and accessories for chemical treatment of the chilled water cooling system

11.6.6 Diffusers, Grilles and Registers.

11.6.6.1 Air distribution devices shall be factory-fabricated of steel, corrosion-resistant steel, or aluminum and shall distribute the specified quantity of air evenly over space intended without causing noticeable drafts.

11.7 TESTING, ADJUSTING, AND BALANCING.

11.7.1 Testing, adjusting, and balancing shall be provided for HVAC ductwork systems and hydronic heating and cooling systems.

11.7.2 Commissioning of HVAC systems is required.

11.7.3 Contractor shall conduct a training course for the operating staff for each particular system.

PART 12

ENERGY CONSERVATION

12.1 ENERGY CONSERVATION STRATEGIES.

12.1.1 Design criteria for alternate energy conservation strategies shall be in accordance with applicable standards identified in Part 2.

12.1.2 Energy conservation strategies should be considered for the buildings. Strategies should result in additional energy conservation beyond the base building design parameters and HVAC systems that comply with the requirements of ASHRAE Standard 90.1.

12.1.3 The energy conservation strategies considered shall be verified through the energy and life cycle cost analyses, and the guidelines of ASHRAE Standard 90.1.

12.1.4 If an alternative energy generation method is intended for use as the project's primary energy source, documentation shall be submitted verifying the system's reliability and the ability to meet the project's peak demand.

12.1.5 The following paragraphs identify energy conservation strategies and techniques to consider. The listing is not all inclusive, and the techniques suggested may not be cost-effective for the project.

12.1.5.1 Geothermal heating and cooling systems. (Consideration required for site land use, soil and ground water conditions, and ground heat rejection data.)

12.1.5.2 HVAC system refrigerant condenser heat recovery. (Possible recovery for building domestic water heating system or building heating water systems.)

12.1.5.3 HVAC system air-to-air heat recovery. (Recovery of building exhaust system energy for pre-heating and pre-cooling of HVAC system outdoor air.)

12.1.5.4 Glazing and shading of building windows.

12.1.5.5 Additional building features to enhance shading.

PART 13

DESIGN – FIRE PROTECTION

13.1 DESIGN CRITERIA AND CODES.

13.1.1 Design and install (labor, material, permits, licenses, etc.) the fire protection system. Fire protection system shall be designed, installed, and tested in accordance with design criteria located in Part 2 and the latest edition of NFPA, and all associated local codes. All Electrical work performed by the Mechanical Contractor shall comply with the National Electrical Code (NFPA 70) for workmanship and installation requirements.

13.2 FIRE PROTECTION SYSTEM DESIGN AND CALCULATIONS

13.2.1 Each building of the entire facility shall be fire protection system protected in accordance with UFC 3-600-01, NFPA 13 and International Building Code. Sufficient hydraulic calculation sets which will fully define the entire system sizing shall be provided. The Contractor shall solicit, independent of the project, a fire protection design firm to provide a layout of the entire fire protection system including hydraulic calculations. The drawings and calculations shall be done by a NICET Level IV certified fire protection specialist or a Registered Fire Protection Engineer. The Contractor shall be responsible for the installation, testing and field certifying of the entire system. The Contractor shall provide performance specifications, fire main routing, and zone delineation as a minimum to the fire protection design firm for use in design of the fire protection system. The hazard classification requirements for this facility with regard to sprinkler protection are defined per the following:

13.2.1.1 Ordinary Hazard Group 2 Classified Areas: These areas include, but are not limited to, repair bays, scheduled maintenance bays, maintenance shops, circulation bays, oil dispensing rooms, mechanical rooms.

13.2.1.2 Light Hazard Group Classified Areas: All areas not classified as ordinary hazard Group 2 areas including combustible attic space.

13.2.2 The Contractor shall perform a water flow test at a nearby hydrant to determine static and residual pressure and water flow. The flow test data shall be used by the Contractor to determine if the water availability and pressure is adequate for the fire protection system and whether a fire pump will be required. Preliminary flow test data indicates that the water flow is marginal but a fire pump will not be required. If the Contractor's flow test indicates a fire pump and storage tank will be required, it will be treated as a change order condition. The local water department and local fire official are to be contacted to determine if a separate fire protection water service and domestic water service for each building is required. Provide double check valve or RPZ backflow preventer as required by Local Authority Having Jurisdiction.

13.2.3 Sprinklers shall not be installed in electrical equipment rooms.

13.2.4 Protect elevator and elevator machine room in accordance with ANSI Elevator Safety Code.

13.2.5 Unheated Storage Building. Sprinkler coverage is not required. The Unheated Storage Building does not exceed 5,000 SF.

13.2.6 Wet chemical fire protection system shall be provided for the kitchen hood and exhaust duct system within the Training Building.

13.3 FIRE PROTECTION EQUIPMENT

13.3.1 Recessed or concealed heads will be used in areas with ceilings. Upright or pendant heads will be used in exposed areas with no ceilings.

13.3.2 A fire pump, if necessary, shall be provided for each building in accordance with UFC 3-600-01. Provide an electric driven fire pump and controllers in accordance with NFPA 20.

13.4 FIRE ALARM SYSTEM

13.4.1 Fire Alarm System Design Criteria.

13.4.1.1 Provide Fire Alarm Control Panel (FACP), Remote Annunciator Panel (FAA), alarm initiating devices, alarm notification appliances, signaling devices, wiring, and testing in accordance with UFC 4-171-05, NFPA 72, NFPA 101 and UFC 3-600-01.

13.4.2 Fire Alarm Equipment.

13.4.2.1 FACP: Provide a complete UL listed addressable system with full control, supervisory, alarm, signal, display, and battery backup features in compliance with NFPA 72. Locate in the main electrical room. Comply with UFC 3-600-01.

13.4.2.2 FAA: Provide a Remote Annunciator Panel that indicates alarm conditions by device and with alarm silence control. Locate in the main entrance lobby, unless directed otherwise by the Local Authority Having Jurisdiction.

13.4.2.3 Alarm Initiating Devices: Provide addressable alarm initiating devices in compliance with NFPA 72 including:

13.4.2.3.1 Provide double action manual pull stations located at main exit, kitchen exit, exits adjoining assembly occupancies, and boiler room exit. The devices shall not utilize keys for testing or resetting the devices. Break-glass type pull stations are prohibited.

13.4.2.3.2 Provide heat detectors for elevator machine room and hoistway.

13.4.2.3.3 Provide photoelectric smoke detectors for fire-rated door hold-opens, fire shutter control, elevator recall, and one above the FACP.

13.4.2.3.4 Provide photoelectric duct smoke detectors in all HVAC main supply ducts and in return ducts when system is greater than 15000 cfm. Provide duct smoke detectors to control fire/smoke dampers. An alternative to duct smoke detection is area

smoke detection of associated smoke compartments. This may be included in the design when more economical than multiple duct smoke detectors.

13.4.2.4 Notification Appliances: Provide audible and visual notification appliances in compliance with UFC 3-600-01 and NFPA 72 including:

13.4.2.4.1 A weatherproof alarm bell or horn located on the outside of the building at the fire protection water service "Siamese" connection in accordance with NFPA 13.

13.4.2.4.2 Alarm horns located in accordance with the Americans with Disabilities Act – Accessibility Guidelines (ADA-AG).

13.4.2.4.3 Visual notification appliances in common use spaces such as corridors, open office space, toilet rooms, break rooms, and similar spaces in accordance with the ADA-AG.

13.4.2.4.4 Signaling devices shall include a telephone auto dialer with two dedicated telephone lines to communicate with a central station monitoring service. The Government is responsible for contracting for central station monitoring service. Coordinate with the Government's selected vendor and assist the Government with establishing service. Provide radio transponder unit with a dedicated telephone line backup to send signal directly to Fire Department via radio.

13.4.2.4.5 Provide all fire alarm system initiation, notification, signal, and control wiring in conduit.

13.4.2.4.6 Connect alarm initiating devices to Signal Line Circuits (SLC), Style 5 or 6, in accordance with NFPA 72.

13.4.2.4.7 Connect alarm notification appliances to notification appliance circuits (NAC), Style Z, in accordance with NFPA 72.

13.4.2.4.8 Provide signals to elevator controller for elevator recall, shutdown and supervision, in accordance with NFPA 72 and ASME A17.1.

13.4.2.4.9 Provide power to the FACP from a locking circuit breaker.

13.4.2.4.10 Provide magnetic door holders at the selected locations (fire-separation doors).

13.4.3 Fire Alarm System Testing.

13.4.3.1 Provide acceptance testing. Provide preliminary testing as required to complete system and submit the Certificate of Completion, in accordance with NFPA 72. Provide final testing to complete and submit the Inspection and Testing Form, in accordance with NFPA 72.

PART 14

SUSTAINABLE DESIGN

14.1 **SUSTAINABLE DESIGN GOALS.** The goals for improving the sustainability of facilities include:

14.1.1 Using resources efficiently and minimizing raw material resource consumption, including energy, water, land and materials, both during the construction process and throughout the life of the facility.

14.1.2 Maximizing resource reuse, while maintaining financial stewardship.

14.1.3 Moving away from fossil fuels, and toward renewable energy sources.

14.1.4 Creating a healthy and productive work environment for all who use the facility.

14.1.5 Building facilities of long-term value.

14.1.6 Protecting and, where appropriate, restoring the natural environment.

14.2 **PROJECT REQUIREMENTS.** Sustainable design techniques shall be considered as they relate to site and building design, construction, and operation and deconstruction. Techniques that conserve energy, improve functionality, and can be justified by life cycle cost analysis as cost effective are encouraged.

14.2.1 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.

14.2.2 The Contractor shall develop the SPiRiT spreadsheet, starting at the Charette Design Phase, and shall update the spreadsheet throughout the project. The minimum acceptable SPiRiT rating for this project is Bronze.

PART 15

Part 15 -- Additional Requirements

15.1 SUBMITTAL REGISTER AND SHOP DRAWING REVIEW AND APPROVAL.

15.1.1 The individual Specification Sections indicate the shop drawings and other submittals required for this Project. The Contractor shall prepare a Shop Drawing Submittal Register, in both electronic and hard copy format, for Government approval, using Form 4288. See Spec Section 01331.

15.1.2 Following Submittal Register approval, the Contractor shall have all required submittals prepared and submitted to the Contractor's designers-of-record, using Form 4025.

15.1.3 The Contractor's designers shall review the submittals and recommend Contractor approval or disapproval, designating one of the following three actions to be taken. Designers of record shall sign approved submittals.

15.1.3.1 "Approved" – Straight approval only; items meet all requirements of the plans and specifications.

15.1.3.2 "Approved as noted." – Approved subject to corrections noted on the submitted data or the submittal form, which will result in compliance with all requirements of the plans and specifications.

15.1.3.3 "Not approved – resubmit" – Items do not meet all requirements of plans and specifications; designer is to note reasons for disapproval on the submittal form.

15.1.4 Equipment or material which does not meet all requirements of the plans and specifications shall not be approved. Requests to substitute equipment or material may be considered by the Government only if proposed by the Contractor, and accompanied by:

15.1.4.1 A written explanation describing all points in which it differs from the Project requirements.

15.1.4.2 A written description of how its substitution will affect other items.

15.1.4.3 The reason for the requested substitution.

15.1.4.4 The amount of credit (or increase) in the construction contract amount should the Government approve the substitution.

15.1.5 Contractor shall maintain an up-to-date copy of the Submittal register at all times, along with copies of all submittals and designer responses. Contractor shall

promptly provide Government with two complete copies of all approved submittals, For Information Only (FIO).

15.2 **WARRANTIES.**

15.2.1 Required warranties are indicated in the Specifications. Contractors are encouraged to offer extended warranties on mechanical equipment and controls, roofing, and other items or systems, either as a part of their proposal (betterment) or an addition to the proposal cost. If Contractor offers as an addition to the proposal cost, such extended warranties will not be a part of the Government's evaluation and selection process.

15.2.2 If warranties from sub-contractors, vendors or manufacturers name the Contractor as the beneficiary, such warranties shall be revised to name the Government at building turnover to the Government.

15.3 **GOVERNMENT REAL ESTATE FORM 1354.** Contractor shall provide draft Form 1354, and associated equipment lists, for Government approval, and shall assist the Government in finalizing the Form. Contractor is responsible for verifying with the RRC the categories and items to be included, and for providing area and cost information required. See Attachment J for a sample Form 1354.

End of section 01020.

AMENDMENT NO. 002

SECTION 01021

DESIGN SUBMISSION REQUIREMENTS AFTER AWARD

PART 1 GENERAL

1.1 INTRODUCTION

This section contains information needed after the successful Offeror has been selected. The information contained in this section applies to the design required for the ARC/OMS/UNHTD STRG at Leavenworth, Kansas.

DESIGNER OF RECORD

The Design/Build Contractor shall identify, for approval, the Designer of Record for each area of work. One Designer of Record may be responsible for more than one area. All areas of design disciplines shall be accounted for by a listed, Professional Registered Designer of Record. The Designers of Record shall stamp, sign, and date each design drawing under their responsible discipline for the final construction documentation stage. Designers of Record shall either be contracted directly by the Prime Contractor or an employee of a design firm that is contracted directly by the Prime Contractor. The Designer of Record shall not be an owner, employee, agent, or consultant of a construction sub-contractor hired for this project.

PART 2 – (Not Applicable)

PART 3 - EXECUTION

3.1 CONTRACTOR DESIGN REQUIREMENTS AFTER AWARD

a. The Contractor shall design and detail a complete and useable facility before construction begins. **Fast track design and construction will be permitted on this project.** The Contractor shall design and construct the facility in Imperial (English) units.

b. The design shall consist of four submittals, as required in the **U.S. Army Reserve Design Process and Submittal Requirements Manual** (website <http://bc.cecer.army.mil/mds/>). These submittals are the Charette Design Phase, the Part I Design Phase, the Part II Design Phase, and the Part III Design Phase. The Certified Final Design is when ALL review comments have been addressed, incorporated into the design, and the final design has been approved, and ready for construction.

- c. The submittals shall include specifications, drawings, design analysis, permit applications, confirmation notices and submittal registers. The government will assist the contractor in finalizing the DD1354. The complete requirements for each submittal is described in the **U.S. Army Reserve Design Process and Submittal Requirements Manual**.
- d. The design shall be completed in accordance with the codes and standards itemized in this RFP.

3.2 SUBMISSION OF DESIGN DOCUMENTS

- a. The Contractor shall submit design documents with cover letter by overnight mail in accordance with the requirements in this specification. The letter shall indicate the project name, due date of comments, and where to send the comments. All drawings shall be half-size. Specifications, submittal register, design analysis and other technical information shall be bound.
- b. **The Predesign Meeting and each Design Review Meeting will be held at a Hilton Chain hotel conference room to accommodate 25 people. The contractor shall be responsible for selecting the hotel near the Kansas City Airport, and making the arrangements and payment for the room.** The design reviews will be held to discuss review comments on the Charette, Part I, and Part II Design Submittals.
- c. Design Reviews shall not be taken as an approval and does not relieve the Contractor from responsibility for compliance with the RFP solicitation, Code Regulations, or betterments listed with the contractor ' s proposal or identified during proposal evaluation.
- d. Once the Government has reviewed and approved the contractor's final design, no further changes to the design shall be made without the written approval of the Government. All costs for submitted variances, after Final Design Approval, shall be borne by the Contractor at no cost to the Government.

3.3 GENERAL DESIGN REQUIREMENTS

- a. The Contractor is required to independently prepare and submit for approval a complete Design. The Contractor's Design Professionals shall independently confirm and be responsible for the technical accuracy and adequacy of all aspects of the project design.
- b. The project design shall include the items listed in paragraph 3.1.
- c. The submission requirements outlined herein are the MINIMUM requirements necessary.
- d. Document quantities and delivery addresses are specified at the end of this specification section. Quantities and addresses apply for each submittal.

e. Not Used.

f. Not Used.

g. CADD Requirements

***2**

(1) **All drawings shall be in AutoCAD.**

***2**

(2) Provide a separate electronic drawing file for each project drawing. Each file shall contain all the data for one complete drawing, including the date and border. Each drawing file must be completely independent of any data in any other file. Drawing files with external references such as reference file attachments or special fonts will not be acceptable. All displayable graphic elements on all levels of the drawing file must be part of the project drawing image. The drawing file may not contain any graphic element that is not part of the drawing image.

(3) Provide a list of all drawings in the set of project drawings together with the name of the electronic file that contains the data for each drawing.

(4) Submitted hard copy drawings must be plotted directly from the electronic file.

h. Specifications and Reports

(1) Provide project specifications and reports in a single electronic document file in Microsoft Word (version 7.0), Windows 98, or NT format. The complete document: including title sheet, table of contents, submittal checklist, and all specification sections; must be assembled into a single electronic document in Word format.

(2) Provide independent page numbering for each specification section. The page number shall incorporate the specification section number (e.g. 15000-1).

(3) Submitted hard copy documents must be printed directly from the electronic file.

i. Electronic Data

(1) Electronic data of all design documents must be provided with the Certified Final Design documents. Data shall be on CD ROM 5-1/4 inch disc.

(2) All furnishings' data including interior signage is to be provided in Microsoft Excel spreadsheet.

j. Submittal Register: The contractor will be required to prepare a Submittal Register Engineering Form 4288 identifying all construction submittals. Each submittal item shall be identified and coded

in accordance with Section 01331. A completed Engineering Form 4288, approved by the Contracting Officer, will be required prior to commencement of construction.

3.4 SUBMITTAL REQUIREMENTS

3.4.1 Design Phase

All design submission requirements are defined in the **U.S. Army Reserve Design Process and Submittal Requirements Manual**. Each discipline is provided the requirements for the Charette, Part I, Part II, and Part III Design Submittals. All aspects will be followed, except for the requirement to design the project using the Modular Design Software (MDS). The only requirement is to design the project in MicoStation, or newer version. Parts I-III will allow the designer to fast-track the civil/site work, so construction may begin in these areas before the building design is complete.

a. The Charette Design Phase is defined in the **U.S. Army Reserve Design Process and Submittal Requirements Manual, Paragraph 2.4. The deliverables for this phase are described in Paragraph 2.4. of the Manual.** The decisions from the Charette Review Meeting will be incorporated into the Part I Design Submittal. It is necessary to provide a corrected charette design phase document after the review meeting.

b. The Part I Design Phase will include:

- Final (90%) Design for building site design to include: building/area site layout, final grade elevations, utility locations, revised complex entrance, parking, and associated roadways.
- Interim (65%) Design for all remaining architecture, structural, interior design, civil, mechanical and electrical systems.

The Interim and Final Design Phases are defined in the **U.S. Army Reserve Design Process and Submittal Requirements Manual, Paragraph 2.5 & 2.6. The deliverables for this phase are described in Paragraph 2.5 and 2.6 of the Manual.** This submittal shall incorporate the review comments from the charette design phase.

c. The Part II Design Phase will include:

- Corrected Final (100%) Design for building site design to include: building/area site layout, final grade elevations, utility locations, revised complex entrance, parking, and associated roadways.
- Final (90%) Design for all remaining architecture, structural, interior design, civil, mechanical and electrical systems.

The Final and Corrected Final Design Phases are defined in the **U.S. Army Reserve Design Process and Submittal Requirements Manual, Paragraph 2.6 and 2.7. The deliverables for this phase are described in Paragraph 2.6 and 2.7 of the Manual.** This submittal shall designate what equipment manufacturers the contractor plans to use for all pieces of equipment. This submittal shall incorporate the review comments from the Phase I design phase.

For the “Civil/Site Work” Corrected Final: The designer is responsible to respond to all comments and incorporate all appropriate comments (as determined by the LRL Project Engineer), generated as a result of the Part I review meeting. As part of the **Backcheck**, the designer shall mark two sets in red, with the reviewer’s name and comment number, indicating the corrections have been made as a result of the review comment. The Louisville District Corps and the Kansas City District Corps will perform a backcheck of comments on these red-lined sets. Once all comments are satisfactorily resolved, the Certified Final Design may be distributed.

d. The Part III design phase will include:

- Corrected Final (100%) Design for all remaining architecture, structural, interior design, civil, mechanical, and electrical systems.

The Corrected Final Design Phase is defined in the **U.S. Army Reserve Design Process and Submittal Requirements Manual, Paragraph 2.7**, shall be considered a formal submittal to all reviewers. This submittal shall incorporate the review comments in the submittal and become the final product for construction.

For the “Building” Corrected Final: The designer is responsible to respond to all comments and incorporate all appropriate comments (as determined by the LRL Project Engineer), generated as a result of the Part II review meeting. As part of the **Backcheck**, the designer shall mark two sets in red, with the reviewer’s name and comment number, indicating the corrections have been made as a result of the review comment. The Louisville District Corps and the Kansas City District Corps will perform a backcheck of comments on these red-lined sets. Once all comments are satisfactorily resolved, the Certified Final Design may be distributed.

e. The Comprehensive Interior Design (CID) and Structural Interior Design (SID) submittals shall follow these documents:

All documents contained in Appendices D, E, and F of this Solicitation U.S. Army Reserve Design Process and Submittal Requirements Manual (located at <http://bc.cecer.army.mil/mds/>)

Note: The furniture will be GFGI (government furnished-government installed). The contractor will be responsible for all power, data, and voice hookups.

It is recommended that the Contractor's interior designer contact Denise Seamon (502-315-6899) of the Louisville Corps of Engineers, after contract award but prior to beginning development of the CID, to coordinate CID submission requirements. The Government believes such coordination will minimize Contractor effort required to develop the CID.

f. Comments will be input into a web based system called DR CHECKS. The Contractor will be given access to this system and will be required to respond to all comments in the program. The Contractor shall print and distribute review sets as shown on the attached list and be prepared to discuss the comments and preliminary responses at the review meeting which will be held at a hotel selected by the contractor near the Kansas City Airport for each part of the design. The Contractor will keep the minutes of the meetings and forward the minutes and annotated comments to all reviewers within 14 days of the meeting. The annotations will be detailed enough to indicate exactly what the Contractor will do to comply with the comments. The contractor shall assemble the comments received into a complete package. The complete package of comments and responses shall be transmitted to all offices that received the design submitted.

g. The Government ' s review is not to be considered a quality control review; the contractor shall provide his own internal quality control as required by contractor Design Quality Controls Plan before the design is submitted to the Government. It is very important the contractor ' s entire team agrees with the design before it is submitted to the Government. Each design submittal shall be stamped "approved" by the contractor, major constructors and by the design team prior to submission for review. The Government ' s review or approval does not relieve the contractor of his responsibility to provide a safe, functional project in accordance with the terms of the contract. All final drawings shall be signed and sealed by the Design Professional. Quality control procedures shall consist of design and/or checking by registered professionals and a review completed by a separate professional. Complete names of designers, checkers, and reviewers shall appear in the drawing title block. The Contractor shall submit the Design Quality Checklist from the Louisville District AE Design Guide with their Final Design Phase submissions.

h. The Government ' s review will likely result in a significant number of comments. The Contractor shall respond to each comment with a response that clearly indicates what action will be taken in Dr. Checks. Comments that, in the Contractor ' s opinion, require effort outside the scope of the contract will be clearly indicated as such by the Contractor. The Contractor shall not proceed with work outside the contract until a modification to the contract is properly executed.

3.4.2 Construction Phase

a. A Letter of Design Completion will be issued upon completion and approval of the corrected final design submittal. This will provide authorization begin onsite construction efforts.

b. As the first item of work during the construction phase, the Contractor shall furnish to the Government 15 half-size sets and 5 full size sets of the certified final drawings and 20 sets of the approved specifications for its use during construction.

- d. No construction will be allowed on work for which the design has not been reviewed and approved.

- e. The Contractor shall provide renderings of the project, as specified in the attachment, no later than 90 days after design completion.

LIST OF ADDRESSES FOR REVIEWS

ORGANIZATION	ABBREVIATION	COPIES		
		(1)	CID	SID
Army Corps of Engrs, Louisville ATTN: Mary Ann Just, ED-MA 600 Dr. M. L. King Jr. Place Louisville, KY 40202	CELRL	8 HS	2	2
Project Officer ATTN: MAJ Ross Nguyen 1500 Jefferson Davis Hwy Arlington, VA 22202	ACSIM-AR	1 HS	0	0
Lyle Bonham 12500 Sulky Court Woodbridge, VA 22192	ACSIM-AR	1 HS	0	0
89 th Regional Readiness Command ATTN: CPT Michael Hardy, AFRC-CKS-EN 3130 George Washington Blvd Wichita, KS 67210-1598	89 th RRC	4 HS	1	1
75 th Army ATTN: LTC Christopher Barnhart	75 th Army	3 HS	1	1
U.S. Army Corps of Engineers Ft. Leavenworth Area Engineer Office ATTN: Ralph Adam 750 West Warehouse Rd. Ft. Leavenworth, KS 66027-2340	NWK -RE	3 HS	1	1
U.S. Army Corps of Engineers	NWK- PM	2 HS	0	0

Kansas City District
ATTN: CENWK-PM-MM, Bob Smith

U.S. Army Information Systems ISEC-CONUS 1 HS 0 0
Engineering Command
Fort Detrick Engineering Directorate
ATTN: George Gaffney
1435 Porter Street, Suite 200
Fort Detrick, MD 21702-5047

(1) All Phase I and Phase II design submittal items (drawings, specifications, analyses, etc.) identified herein that are not included in the CID & SID requirements.

(2) Note: FS = Full size plans, HF = Half size plans.

Project:

Final Design and Certified Final Design Checklist
(Edit as needed)

1. GENERAL:

- a. Have all documents been prepared in accordance with the QC Plan?
- b. Have drawings and specifications been coordinated between engineering disciplines?.....
- c. Have drawings and specifications been checked and initialed by reviewer and designer?.....
- d. Have drawings and specifications been reviewed by a qualified engineer to assure fire protection engineering is in conformance with applicable portions of NFPA regulations and national, state, and local building codes?..
- e. Are drawings, design analyses, etc., signed and dated?.....
- f. Are Government review comments on preliminary and/or concept design submittals annotated and incorporated into final drawings and specifications?.....
- g. Are annotated review comments included in each package?.....
- h. Is construction bar chart included?.....
- i. Are "Engineering Consideration and Instructions to Field Personnel" included?.....

(NOTE: For projects containing metal buildings a special note to the field shall be included, requiring a "presubmittal" meeting with Construction field personnel, Contractor, metal building supplier and Engineering Division representatives to discuss the specifications and submittal requirements.)

- j. ITR certification sheet signed and included?.....

2. DRAWINGS:

- a. Has CADD quality been checked to assure legible reproduction?.....
- b. Does location plan include location of borrow pits, disposal areas, areas for contractor's office and storage, haul routes, location of Resident/Area Engineer and DEH office?.....
- c. Have deductive alternates (if appropriate) been identified on the drawings and coordinated with the unit price schedule?.....
- d. Have signature blocks been properly prepared?.....
- e. Has Quality Control Procedures been performed to assure that translated files are fully useable, complete and represent the design

3. SPECIFICATIONS:

- a. Were latest guide specifications used?.....

b. Are specifications prepared in accordance with the manual, Louisville District Design Guide for Military Construction, using required weight of paper, Standard Elite or other acceptable type face, the proper format, and with proper submittal notations in margin?.....

Name of person supervising specifications preparation:.....

c. Has unit price schedule been prepared in conformance with the example shown?.....

d. Have payment paragraphs been checked and coordinated with the Unit Price Schedule?.....

4. COST ESTIMATE:

a. Have cost estimates been prepared in accordance with manual, Louisville District Design Guide for Military Construction?.....

b. Is cost estimate within CCL? Have recommendations been made for cost reductions including deductive alternatives? Are deductives clearly delineated on the drawings and unit price schedule?.....

5. MISCELLANEOUS:

a. Have construction permits been applied for as required by the Clean Air Act and Clean Water Act Amendments?

b. Has the Certified Final (aka 100% revised) submittal been made in accordance with every requirement of the Appendix A to your contract?..... (If not, explain deviations on a separate sheet attached to this form.)

SIGNATURE AND DATE

RENDERING FORM

PROJECT TITLE__United States Army Reserve Center/OMS/UHS, Leavenworth, Kansas

1. GENERAL

Each rendering will be matted, mounted, labeled, and framed with non-glare glass ready for hanging and to be shipped/delivered. Rough 8 1/2 x 11 "block out" sketch will be forwarded to DAAR-EN for approval prior to proceeding to a final rendering.

2. QUANTITY/DISTRIBUTION

<u>Original</u>	<u>Full Size Color Framed Copy</u>
__1__ Project Location	_____ U.S. Army, Pacific (Attn: APEN)
	_____ Installation Management Agency, ATTN: SFIM-ARD, _____
	__1__ ACSIM-AR (Attn: DAIM, AR, _____)
	__1__ CELRL-ED-MA (Other) _____

3. PARTICULARS:

a. Size, approximated. (Check one of the following)

_____ 36" x 36"	_____ 30" x 24"	_____ 24" x 24"
_____ 36" x 30"	_____ 30" x 20"	_____ 24" x 18"
__X__ 36" x 24"		

b. Orientation:

_____ Front	_____ Left
__X__ Aerial	_____ Right
_____ Other _____	

c. Labeling/Title:

- (1) USAR Center Dedication Name or Greenbook Project Title / DDForm 1391 Project Title (first line) _____
(second line) _____
- (2) Location (City/ State) _____
- (3) Description (i.e. 600 Member USARC/OMS) _____
- (4) Label/Title Location: _____ top center **__X__ bottom center**
_____ (other) _____
- (5) Frame Material: _____ wood **__X__ aluminum** _____ plastic
_____ black metal (with non-glare glass)
- (6) Matte _____ light gray _____ taupe _____ white _____ off white _____ other
__X__ color selected by renderer to match colors
- (7) Other Reprographics (indicate quantity)

__10__ color photograph (8 x 10), 6 framed, 4 unframed	__1__ 35 mm slide
_____ transparency	_____ reprint
__1__ electronic (_____)	
__1__ digital photograph in jpg or kdc format.	

List specific items to be shown on the rendering. (ie. Humvee or people dressed in army green)
Flagpole

(Items in bold represent the frequently used selections. Items listed above to be forwarded to CELRL-ED-MA, unless noted otherwise.

General Decision Number: KS030008 07/02/2004 KS8

Superseded General Decision Number: KS020008

State: Kansas

Construction Types: Building

Counties: Johnson, Leavenworth, Miami and Wyandotte Counties in Kansas.

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	06/13/2003
1	02/13/2004
2	03/05/2004
3	04/16/2004
4	06/04/2004
5	06/25/2004
6	07/02/2004

ASBE0027- 001 10/01/2003

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishings to all types of mechanical systems. Also the application of firestopping material for wall openings and penetrations in walls, floors, ceilings and curtain walls.)...	\$ 25.87	16.45

BOIL0083- 001 09/01/2001

	Rates	Fringes
Boilermaker.....	\$ 25.01	11.14

BRKS0015- 003 04/01/2003

	Rates	Fringes
Brickmason.....	\$ 25.20	10.80

BRKS0015- 004 06/01/2002

	Rates	Fringes
Tile Setter.....	\$ 26.57	5.80

CARP0007- 002 04/01/2003

	Rates	Fringes
Carpenter (Including acoustical ceilings and		

KS030008.txt

drywall hanging)..... \$ 27.40 8.48

CARP0007-015 04/01/2003

	Rates	Fringes
Millwright.....	\$ 27.40	8.48

ELEC0124-005 09/29/2003

	Rates	Fringes
Electrician.....	\$ 30.73	13.82

* ENGI1101-001 04/01/2004

	Rates	Fringes
Power equipment operators:		
Back Hoe, Front End Loader..	\$ 26.50	10.44
Cranes (Tower or Climbing) ; other cranes with over 150 ft. of boom (including the jib but less than 225 ft).....	\$ 28.66	10.44
Cranes (150 ft. or less of Boom)		
Overhead, Hydraulic cranes.	\$ 27.31	10.44
Cranes with 225 ft of boom or over (including jib).....	\$ 29.91	10.44
Fork Lift-all types and size	\$ 25.16	10.44
Oiler.....	\$ 21.35	10.44

Cranes with 225 ft. of boom or over including jib receive a premium of \$1.25 per hour

IRON0010-009 04/01/2003

	Rates	Fringes
Ironworker, reinforcing and structural.....	\$ 24.10	13.73

LAB01290-002 04/01/2004

	Rates	Fringes
Laborers:		
Brick Tender/Hod.....	\$ 21.70	8.79
Carpenter Tender.....	\$ 22.10	8.79
General.....	\$ 21.30	8.79

PAIN0003-007 04/01/2001

	Rates	Fringes
Drywall Finisher/Taper.....	\$ 23.10	6.48

PLAS0518-004 04/01/2003

	Rates	Fringes
Cement Mason.....	\$ 22.93	10.55

PLAS0518-015 04/01/2003

	Rates	Fringes
Plasterer.....	\$ 22.65	9.85

PLUM008-008 06/01/2001

	Rates	Fringes
Plumber (Excluding HVAC Work:)		
Miami.....	\$ 28.83	11.22
Wyandotte, Leavenworth & Johnson.....	\$ 30.39	7.66

PLUM0533-002 06/01/2002

	Rates	Fringes
Pipefitter.....	\$ 29.78	11.68

ROOF0020-006 06/01/2003

	Rates	Fringes
Rofer.....	\$ 26.45	7.99

SFKS0314-001 07/01/1999

	Rates	Fringes
Sprinkler Fitter.....	\$ 25.15	6.95

SHEE0002-002 07/01/2003

	Rates	Fringes
Sheet metal worker (INCLUDING HVAC DUCT WORK).....	\$ 32.52	9.88

SUKS2002-002 10/30/2002

	Rates	Fringes
Glazier.....	\$ 11.00	2.27
Laborer: Form setter.....	\$ 14.00	
Painter, Brush and Roller (Excluding Drywall Finisher/Taper).....	\$ 17.83	4.56

WELDERS - Recieve rate prescribed for craft performing operation to which welding is incidental

TEAM0541-016 04/01/2003

	Rates	Fringes
Truck Driver Dump, Trailer.....	\$ 24.29	7.00+a

FOOTNOTE

a: An employee who has worked 1300 hrs. or more for an employer during the last full year shall receive 1 week

vacation.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
=====

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 (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the 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, DC 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, DC 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, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====
END OF GENERAL DECISION