AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE	OF	PAGES
	1		3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
0006	30 April 2002		

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
US ARMY ENGINEER DISTRICT, FORT WORTH ATTN: CESWF-CT (RM 2A19) PO BOX 17300 FORT WORTH, TX 76102-0300			

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*	(X)	9A. AMENDMENT OF SOLICIATION NO.
	☒	DACA63-02-R-0007
		9B. DATED *(SEE ITEM 11)* 15 JANUARY 2002
	☐	10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED *(SEE ITEM 11)*
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

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

Offers 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 1 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 your 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 ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

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

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

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

The Request for Proposal for Design-Build Consolidated Library and Education Center, Fort Polk, Louisiana, is amended as follows:

See Continuation Sheets.

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)*	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	16C. DATE SIGNED

Item 14. Continued.

CHANGES TO VOLUME I – PROJECT INFORMATION, BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS OF THE CONTRACT

1. Standard Form 1442, First Page, Item No. 13.A.- In the second line, change the receipt of proposal date and time from "9 May 2002 at 4 pm local time" to "**14 May 2002 at 12 pm NOON local time**."

2. Replace the Price Proposal Schedule, pages 00010-3 through 00010-5, with the accompanying new Price Proposal Schedule, bearing the notation "ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007."

3. Replacement Sections - Replace the following Section with the attached new Section of the same number and title, bearing the notation "ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007."

SECTION 00120 - PROPOSAL SUBMISSION REQUIREMENTS

CHANGES TO VOLUME II – DESIGN AND PERFORMANCE REQUIREMENTS

4. Replacement Chapter.- Replace the following chapters with the accompanying new chapter of the same number and title, bearing the notation "ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007:"

CHAPTER 111 - FACILITY PERFORMANCE
CHAPTER D3 - HVAC - HEATING, VENTILATING, AND AIR CONDITIONING
CHAPTER G28 - GENERAL CIVIL DESIGN AND SITE REQUIREMENTS

CHANGES TO VOLUME III– SPECIFICATIONS

5. Replacement Sections.- Delete SECTION 01361 – SPECIAL PROJECT PROCEDURES FOR FORT POLK and replace with the accompanying new SECTION 01361 – SPECIAL PROJECT PROCEDURES FOR FORT POLK, bearing the notation "ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007."

CHANGES TO VOLUME IV – ATTACHMENTS

6. New Attachment - Add the following accompanying new attachment, bearing the notation "ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007," and add to the Table of Contents:

ATTACHMENT M - DoD ANTI-TERRORISM/FORCE PROTECTION MINIMUM STANDARDS

7. Replacement Attachments.- Replace the following attachments with the accompanying new attachments of the same number and title, each bearing the notation "ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007."

ATTACHMENT A - SPACE BUBBLE DIAGRAM
ATTACHMENT B - SCHEDULE OF AREAS
ATTACHMENT C - ROOM FUNCTIONAL REQUIREMENTS

CHANGES TO DRAWINGS

8. Replacement Drawings.- Replace the drawing listed below with the attached new drawing of the same number, bearing the notation "AM #0006":

c01.cal C1 PROJECT LOCATION MAP

END OF AMENDMENT

ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007

Design-Build Ft Polk Consolidated Library/Education Center
Fort Polk, Louisiana

Solicitation No.DACA63-02-R-0007

PRICE PROPOSAL SCHEDULE
(To be attached to SF 1442)

BASE BID: All work required by the Contract documents for the design and construction of the Ft Polk Consolidated Library/Education Center exclusive of work required by Option Bid Items.

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
0001	All work to design and construct the Consolidated Library/Education Center, Complete, including a HVAC system other than a ground heat pump system, utilities to the 5-foot line, to the 5-foot line and exclusive of all other work listed separately.	Sum	Job	***	$_____
0002	Construct all Exterior Work outside the building's 5 foot line (Including utilities to the Fort Polk utility tie-in, earthwork, paving sidewalk, parking lot paving, curb and gutter, turfing, landscaping, and all other work not listed separately)	Sum	Job	***	$_____
0003	Final Record Drawings	Sum	Job	***	$ 50,000.00

TOTAL BASE BID $_____

0004 OPTION NO. 1:
Additional cost for all work required for the design and construction of 150 additional parking spaces. [Am#0006]

Sum	Job	***	$_____

TOTAL OPTION NO. 1 $_____

TOTAL BID (BASE BID PLUS OPTION NO. 1) $_____

ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007

Design-Build Ft Polk Consolidated Library/Education Center
Fort Polk, Louisiana

Solicitation No.DACA63-02-R-0007

PRICE PROPOSAL SCHEDULE

0005 Completion Time for all work (not to exceed the maximum time stated in Section 01000 DESIGN AND CONSTRUCTION SCHEDULE)

PROJECT COMPLETION TIME: _____ Calendar Days

NOTES:

1. ARITHMETIC DISCREPANCIES (EFARS 14.407-2)

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

(1) Obviously misplaced decimal points will be corrected;

(2) In case of discrepancy between unit price and extended price, the unit price will govern;

(3) Apparent errors in extension of unit prices will be corrected; and

(4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the Government will proceed on the assumption that the bidder intends his bid to be evaluated on the basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

2. If a modification to a bid based on unit prices is submitted, which provides for a lump sum adjustment to the total estimated cost, the application of the lump sum adjustment to each unit price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the bid schedule.

3. Bidders must bid on all items.

4. Costs attributable to Division 01 - General Requirements is assumed to be prorated among bid items listed.

5. Responders are advised that this requirement may be delayed, cancelled or revised at any time during the solicitation, selection, evaluation, negotiation and/or final award process based on decisions related to DOD changes in force structure and disposition of the Armed Forces.

PRICE PROPOSAL SCHEDULE

NOTES: (cont)

6. EXERCISE OF OPTIONS (SWDR 715-1-1 (16 January 1996))

The Government reserves the right to exercise the option(s) by written notice to the Contractor either singularly or in any combination for up to 90 calendar days after award of the Base Bid without an increase in the Offeror's Bid Price. Completion of added items shall continue at the same schedule as the Base Bid unless otherwise noted in Section 01000 DESIGN AND CONSTRUCTION SCHEDULE, paragraph 1 entitled SCHEDULE.

7. The Army will procure this facility through a design and cost competition in accordance with the provisions set forth in this Request for Proposals (RFP). When a contract is awarded, it will be a "Firm Fixed Price Contract."

8. The Congress, in authorizing and funding this contract, has established certain cost limitations for the project. The current authorization for the complete design and construction of this project is **[Am #0005]$9,700,000.00.** Proposals that exceed this funding limit after exercising any options may be rejected. Submission of desirable alternative features exceeding minimum requirements may be considered as long as award can be made within the established funds.

9. Any proposal that is materially unbalanced as to prices for the Base Schedule may be rejected. An unbalanced proposal is one that is based on prices significantly less than the cost for some work and prices that are significantly overstated for other work and can also exist where only overpricing or underpricing exists.

END OF PRICE PROPOSAL SCHEDULE

SECTION 00120
PROPOSAL SUBMISSION REQUIREMENTS
01/02
AM NOs. 0004 and 0006

1 GENERAL

1.1 INTRODUCTION

Through the use of a two-phase procurement process, the Department of the Army desires to obtain the design and construction of Consolidated Library/Education Center Fort Polk, Louisiana. In this procurement procedure consideration will be given initially to the Project Organization and Personnel; Experience; Past Performance; and Financial Capacity. The offerors that are rated the highest on the Phase I evaluation criteria, minimum of two (2) but no more than four (4), will be selected and given the opportunity to offer their preliminary design and cost proposals in Phase II. Final selection and basis for award of the Design/Build Contract will be on the basis of qualifications, technical quality, price, and other salient factors considered to be in the Government's best interests. If awarded the Contract, the offeror shall complete the design and construction documents and construct the facility in compliance with these completed requirements.

1.2 WHERE AND WHEN TO SUBMIT PROPOSAL

Submit Phase I of the Proposal no later than the date and time indicated in Item 13.A of the Solicitation, Offer and Award form (Standard Form 1442) found in Section 00010, SOLICITATION, OFFER, AND AWARD. Offerors invited to participate in Phase II will be notified of the date and time for submission of their Phase II proposal.

1.3 EXPLANATION TO PROSPECTIVE OFFERORS

Any prospective offeror desiring an explanation or interpretation of the solicitation, drawing, specifications, etc. must request such in writing, and are directed to the individuals listed in Section 00100 INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS, soon enough to allow a reply to reach all prospective offerors before the submission of their proposals. Oral explanation/instructions given before award of a contract will not be binding. Any information given a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an amendment to the solicitation, if that information is necessary for submitting proposals, or if the lack of it would be prejudicial to other prospective offerors.

1.4 REQUIRED TECHNICAL DATA FOR PROPOSAL SUBMISSION

Offerors are advised that the required data will be utilized for review and evaluation and used for determination of a "Quality Rating" by a Technical Evaluation Board and that all data submitted for consideration under this proposal will be reviewed only for the purposes required for evaluation and award. The Government will not make assumptions concerning the offeror's intent, capabilities, facilities, or experiences. Clear identification is the sole responsibility of the offeror.

1.5 PROPOSAL PREPARATION

Instructions for the preparation and organization of each proposal are included herein. The proposal shall be submitted as summarized below and as required by the specifications.

1.5.1 Phase I – **(AM#3) Primary Design Construction Team Management** Proposal **(AM#3)**

- **A. Solicitation, Offer, and Award**
- **B. Project Organization and Personnel**
- **C. Experience**
- **D. Past Performance**
- **E. Financial Capacity**

1.5.2 Phase II – Design and Cost/Price Proposal **(AM#3)** **Phase II will be submitted ONLY by those firms that are rated the highest on Phase I evaluation criteria, minimum of two (2) but no more than four (4).**

A. Design Proposal (Volume I)
B. Preliminary Project Schedule (Volume I)

(AM#3)

C. Pro Forma Requirements (Volume II)

1.5.3 Format

1.5.3.1 Written Material

a. All written material, including catalog cuts, shall be submitted in standard three ring loose-leaf binders. Proposals shall be tabbed and labeled in a manner to afford easy identification from a Table of Contents. Font size shall be not less than 10 point. Each page shall be identified with the appropriate page number centered at the bottom of the page. Sheet size of the proposal contents shall be 8 ½ by 11 inches. 11 by 17 inch sheets will be allowed for charts and tables but will be counted as 2 single-sided or 4 double-sided pages. Legibility, clarity, coherence, and the contents are important. The Phase I (Management/Technical) proposal length shall be limited to 70 single-sided or 35 double-sided pages, exclusive of the cover sheet, Table of Contents, and appendices. The offeror shall not submit verbatim sections or attachments of this solicitation as part of their proposal. Offers that do not meet these requirements may be subject to rejection.

b. A cover sheet identifying the offeror and the project shall be provided. The second sheet shall be a Table of Contents.

c. Table of Contents. The proposal shall contain a detailed Table of Contents. The complete Table of Contents shall be included in each binder used.

d. Materials submitted but not required by this solicitation (such as company brochures and equipment lists) shall be relegated to appendices.

e. Proposal revisions for written portions of the proposal, including catalog cuts and specifications, shall be submitted as page replacements with revised text readily identifiable, e.g. bold face print or underlined. The source of the revision, e.g. Error, Omission, or Clarification (EOC), amendment or other Contractor-initiated change, shall also be indicated for each revision. Revised pages shall be numbered, dated, submitted in same number of copies as the original proposal submittal, and a different color page than the original.

1.5.3.2 Drawings

a. Full size drawings shall be submitted in accordance with Section 1016, DESIGN DOCUMENT REQUIREMENTS. Each drawing shall be identified with the appropriate Sequence and Sheet Numbers in the lower right hand corner. The original and one copy of all drawings must be full size drawings. The remaining copies may be full size or reduced size, but no smaller than 11 x 17 inches.

b. All alternate designs, which may or may not be priced as additive or deductive items shall be graphically described on separate drawings from the base proposal design. All alternate designs shall meet the minimum requirements of the solicitation.

c. Proposal revisions for drawings shall be submitted as sheet replacements with all changes identified on the drawings with clouds and in the title block, including the source of the revision, e.g. Error, Omission, or Clarification (EOC), amendment, or other Contractor-initiated change. Revised drawings shall be numbered, dated, and submitted in the same number of copies as the original proposal submittal.

1.5.3.3 Electronic Material

(AM#6) The offeror shall submit one copy of the proposal and all revisions, if applicable, on CD-ROM disk within 72 hours of the proposal due date. All textual material, catalog cuts, and other non-drawing material shall be in Adobe Acrobat Portable Document Format (.pdf), arranged in the same order as the hard copy version with each section or part book marked. All drawings shall be formatted in accordance with Section 1016 DESIGN DOCUMENT REQUIREMENTS, Paragraph ".CAL Files." The offeror must ensure that all textual material, if it has been scanned, has been converted to a text searchable document by using the Paper Capture tool in Adobe Acrobat.

1.5.4 Proposal Submission

The proposal submitted shall include an original, copies as indicated below, and one electronic copy on CD-ROM disk (Both Volumes of Phase II may be on the same CD-ROM disk.) Each proposal shall be marked to clearly identify the original and the copies. The copies shall be numbered. Volume II of Phase II shall be sealed in a single package separate from Volume I.

Phase I – Management/Technical Proposal	Original and nine (9) copies
Phase II – Design Proposal	
Volume I	Original and nine (9) copies
Volume II	Original and one (1) copy

1.6 REFERENCED PUBLICATIONS

Corps of Engineers' (COE) design criteria and manuals that are referenced in this solicitation, such as Technical Manuals (TM) and Instructions (TI), Military Handbooks, Engineering Regulations (ER), and Engineering Manuals (EM), can be downloaded from the Internet at the following address: http://www.hnd.usace.army.mil/techinfo or obtained from the current National Institute of Building Science's (NIB) Construction Criteria Base (CCB) CD-ROM disk. The COE SWD-AEIM, AR 190-51, and EC 1110-1-92 are on the Solicitation CD-ROM Disk. The Installation Information Infrastructure Architecture (I3A) guidelines can be downloaded from the Internet at the following address: http://arch-odisc4.army.mil/. Obtaining other referenced publications such as Federal and Military specifications, Military Standards, and industry standards (i.e., ASTM, ANSI, ACI, NFPA, building codes) will be the responsibility of each offeror. See Section 00100, paragraph "52.211-2 AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L (AUG 1998)", for information on obtaining these publications. Offerors are warned that due to the limited time for proposal preparation and submittal, there may not be enough time for ordering and receiving any of the above references. Failure to receive requested references will not be sufficient reason for extension of the proposal submission date.

1.7 UNNECESSARILY ELABORATE PROPOSALS OR QUOTATIONS

Unnecessarily elaborate brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as an indication of the offeror's lack of cost consciousness. Elaborate artwork, expensive paper and bindings, and expensive visual and other presentation aids are neither necessary nor wanted.

1.8 REQUIREMENT FOR SPECIAL MARKING OF PROPOSAL DATA

Envelopes or other cover for material submitted in response to this RFP shall be opaque, and must be so presented that they may easily be identified. At a minimum, the outside cover for each phase must show:

Destination of Proposal
Name and location of project as described in the RFP documents
Solicitation number
Name and address of offeror
Project phase and volume number

Submit the proposal in the format specified. Oral or telephonic proposals or modifications will not be considered.

Mail or deliver the proposal to the address listed on the Standard Form 1442, "Solicitation, Offer and Award."

1.9 DESCRIPTION OF EVALUATION CRITERIA

1.9.1 Phase I – Management/Technical Proposal Preparation

The Management/Technical proposal shall include information as described below and shall be presented in the sequence listed.

(AM#3)

A. Solicitation, Offer, and Award: The Standard Form 1442 shall be completely filled out and signed by a principal of the firm authorized to bind the design;-build team. Signatures(s) must be in long hand.

B. Project Organization and Personnel:

1. Personnel **(AM#3) Primary Design Construction Team)**:

a. **This factor considers the offeror's proposed design, construction, and management team.** Provide professional resume data on the individuals who will be key personnel on the **(AM#3) Primary Design Construction** project team. Key personnel identified in this section should be **(AM#3) Primary Contractor's** senior working-level people who will be involved in design and construction on a day-to-day basis, as opposed to departmental level supervisors or executives. If reassignment of personnel is considered possible, provide the names and resumes of the alternate professionals in each assignment.

See Sections 01015, 01320, 01430, and 01451 for minimum personnel qualifications. The following list shall be provided as a minimum:

Project Manager
Project Architect
Senior Structural Engineer
Senior Mechanical Engineer
Senior Electrical Engineer
Senior Civil Engineer
Fire Protection Engineer
Registered Communication Distribution Designer
NACE Certified Corrosion Specialist
Design Quality Control Manager
Construction Quality Control Manager
Project Scheduler
Interior Designer (AM#2)
Landscape Architect (AM#3)

Information to be provided includes:

Name
Project assignment
Name of firm with which associated
Years experience: with this firm, with other firms

Education: degrees(s)/year/specialization
Active registration: state and year first registered
Experience and qualifications relevant to proposed project: for each project listed, provide project description, project dates, the individual's project assignment to include specific roles and responsibilities, and its relevance to this solicitation.

b. Identify the Designer(s)-of-Record for each discipline

c. In an appendix, provide letters of commitment for all key personnel on the **AM#3) Primary Design/Construction** project team and any proposed alternate personnel. By identifying these personnel, the offeror is making a commitment that, barring unforeseen circumstances, they are the personnel who will be assigned to the project. A letter of commitment from each firm committing specific individuals from the firm may be provided in lieu of separate letters for each individual.

d. Capacity to Perform

(1) Provide a list of key professional job titles. Indicate the total number of personnel in each category for the **(AM#3) Primary Design Construction Team** and consultants on the team and the number of personnel in each category who will be assigned to this project.

(2) Discuss capacity to successfully perform the requirements of this Contract based on current workload and staffing. Discuss strategy to provide supplemental and/or replacement personnel to support this project during design and/or construction, as necessary. In the appendix, provide a list of all current contracts for the **(AM#3) Primary Design Construction Team** , and consultants on the team.

2. Team Organization and Management:

a. Provide an organizational chart and supporting narrative describing how the team will be structured. Include all key design and construction personnel and firms on the organizational chart. Discuss the specific roles and responsibilities of each key individual and firm.

b. Describe the proposed management structure for the team. Discuss how the design and construction process will be managed, to include a discussion on delegation of authority within the team.

c. Describe interactions within the team and with the Corps of Engineers during design. Discuss how design changes will be handled and the roles that various team members will play when dealing with design changes. Discuss the role of construction team members during design phase.

d. Describe interactions within the team and with the Corps of Engineers during construction. Discuss how changes will be handled during construction and the roles that various team members will play when dealing with changes during construction. Discuss the role of design team members during construction. Specifically address design team's role in construction Quality Control program; Requests For Information (RFI's); shop drawing/submittal review and approval; attending progress meetings; site visits; inspections; and contract completion and closeout.

e. Describe the time control systems to be utilized. Discuss the use of the project schedule for managing the design and construction. Describe internal procedures for handling delays to minimize time growth.

f. Identify the items of work to be self-performed by offeror and the percentage of the overall contract value that this work represents.

g. Describe the team's computer-aided drafting and design (CADD) capabilities. Identify the CADD software to be used in the design of this project; if all disciplines are not using the same CADD software, identify the software that each discipline is using. Discuss compatibility with the Government's target CADD and compliance with the Tri-Service A/E/C/ CADD standards. Explain how compatibility will be achieved if the design, or portion of the design, is prepared using a CADD system other than the Government's target CADD system. (Refer to Section 01016 for information on the Government's target CADD system and compatibility requirements.)

(AM#3) C. Experience

1. Provide a list of projects currently underway or completed within the last 5 years that best demonstrates the design and construction experience of the team (firms and/or individual team members) to successfully complete this facility using a design/build process. Experience beyond 5 years ago for construction contractors will not be given consideration unless the key personnel proposed for this project played a significant role in the earlier project and the project can be shown to be similar to this project. An offeror must make clear the extent of involvement in those projects by current key personnel and clearly describe how the older project is similar to this project, considering changes in technology, materials, equipment, codes, etc. Experience beyond 5 years ago for design firms will not be given consideration.

List no more than 10 projects total. The list of projects shall include the following information:

a. Project name and location
b. Type of facility
c. Nature of firm's responsibility (design, construction or both)
d. Identify type of contract (design, design/build, or construction)
e. Project owner's name and address and project manager's (point of contact) name, telephone number, fax number, and email address (if known)
f. If a government contract, include the contracting agency and contracting officer's name, telephone number, fax number, and email address (if known)
g. Date started
h. Original scheduled completion date
i. Actual completion date
j. Overall size of facility (in square feet or square meters)
k. Construction cost (excluding design costs)
l. Duration of construction (excluding design time)
m. Problems encountered and corrective actions taken
n. Identify which proposed team members and/or firms were involved in the project; their specific roles and responsibilities on the project; and the extent of time they were involved with the project
o. Relevance of experience to the solicitation project

2. Joint Ventures: If offeror represents the combining of two or more companies for the purpose of this RFP, the proposal shall indicate whether the firms have experience working together in design/build ventures and for how long and how many projects. In addition, each company of this joint venture shall list their Government contract experiences.

(AM#3) D. Past Performance:

1. For each design and/or construction firm on the project team, provide firm’s name, address, and DUNS number.

2. Offerors are encouraged to submit awards, letters, evaluations (ACASS, CCASS, and/or non-Corps evaluations), or other forms of recognition that demonstrates the performance capabilities and customer satisfaction for each firm on the team. If provided, this additional past performance

information shall be included in an appendix and will not count towards the aforementioned page limitation.

3. For each non-Corps project listed under "Phase I: Experience" factor, offerors should send Client Authorization Letters and Contractor Performance Report (See Section 00500) to each reference listed in the proposal to assist in the timely processing of the past performance evaluation. In an appendix, provide a copy of issued letters with the offeror's proposal.

4. New Companies: For new companies entering the marketplace (without relevant company experience) it will be the quality of the past performance of their key management personnel **(AM#3) of the Primary Design Construction Team**, and consultants that will indicate the risk of good performance and become the basis of the past performance evaluation. Identifying how long key personnel stayed on their contracts and how well they managed their portion of the referenced contracts will be of great importance in the evaluation process.

(AM#3) E. Financial Capacity:

Submit a letter of current bonding capacity from a Bonding Company. This letter will not count towards the aforementioned page limitation.

1.9.2 Phase II – Design and Cost/Price Proposal Preparation

VOLUME I – PRELIMINARY DESIGN PROPOSAL

The purpose of the Preliminary Design Proposal is:

To provide sufficient design information for the Government to determine the acceptability of the proposed design in meeting the functional requirements set forth herein for operational use and economical maintenance during the anticipated life of the facility.

To provide data for a determination of the engineering sufficiency and soundness of the basic approach to the design for each technical discipline. Also, it will serve as a documentary check that the designer has been provided or has developed the essential engineering criteria necessary for all facets of final computations and detailed development of a thoroughly engineered, coordinated, economical, and functional design.

A. Design Proposal

1. The design proposal shall include, as a minimum, the following descriptive narratives, manufacturer's catalog data, and graphic information:

a. Narratives

(1) General Description

(a) Provide brief description of the facility addressing the overall design, materials components, and engineering. DO NOT INCLUDE DESIGN CALCULATIONS. Include the following:

(i) Basic site layout and the rationale behind the site design. Address existing site features, site demolition requirements, new utilities, site improvements, force protection requirements, camera (CCTV) layouts, landscaping, and irrigation.

(ii) Building's architectural configuration and the rationale behind the design. Address relationship of the site and site activities to the building. Address exterior and interior building materials. Discuss the compatibility of the proposed design and materials with the Fort Polk Installation Design Guide.

(iii)Building(s)' interior configuration, to include general discussion on interior finishes, including those in the library, classrooms, offices, general administrative areas, and common areas (copy rooms, break/vending areas, conference rooms, restrooms). Discuss use of common areas within the facility. DO NOT PROVIDE COLOR BOARDS.

(iv) NOT USED

(v)Structural system and the rationale behind the selection of the proposed system, including identification of major structural materials and systems.

(vi)Heating, Ventilation and Air Conditioning system and rationale behind the selection of the proposed system.

(vii)Fire protection system and the rationale behind the selection of the proposed system.

(viii)Exterior power distribution systems and the rationale behind the selection of the proposed system. Discuss service to the building and location. Identify type of wire. Identify whether aerial or underground.

(ix)Interior power distribution systems and the rationale behind the selection of the proposed system. Identify electrical characteristics of power supply (phase, voltage, KVA). Provide description of panels, protection devices and typical loading of circuits. Identify type of wire.

(x)Exterior lighting system and the rationale behind the proposed system. Address exterior lighting locations, illumination levels for each area, and lighting controls.

(xi)Interior lighting system and the rationale behind the selection of the proposed system. Address illumination levels for each area, emergency lighting, and lighting controls.

(xii)Exterior communications service to the facility. Discuss the proposed method for relocating existing underground communications line.

(xiii)Interior communications systems (telephone, data, cable TV, sound transmission) and the rationale behind the selection of each system.

(b) Describe the energy-efficient and/or energy-saving features proposed for this project.

(c) Discuss maintenance and accessibility considerations in the selection and layout of the mechanical and electrical systems.

(d) Identification of proposed methods of meeting security requirements.

(e) **If the design proposal includes any deviations from the RFP requirements, including functional or adjacency requirements, identify the deviation, provide justification for the deviation, and describe the benefit/improvement that the deviation provides to the facility.** (See Section 00150, paragraph "DESIGN FREEDOM".)

(f) **Identify all proposed betterments.** (See Section 00800, clauses entitled "DESIGN-BUILD CONTRACT ORDER OF PRECEDENCE" AND "PROPOSED BETTERMENTS".)

(2) Conceptual Considerations

(a) Discuss the overall architectural theme for this facility. Include in your discussion how the overall facility design, orientation and overall site layout contribute to the town center concept envisioned for the future development of this area of Fort Polk. Describe the aesthetics and

ambiance proposed for the interior areas of the facility. DO NOT PROVIDE COLOR BOARDS.

(b) Provide a detailed narrative explaining the operational concept for the library and education center, to include the following information. Diagrams and/or flow charts may be provided to supplement the narrative.

(i) Discuss patron flow through the facility, to include facility entrances, lobby/waiting area(s), restrooms, ...
(ii) Discuss layout and flow through the facility for an operational perspective, to include: deliveries and distribution from the loading dock, use of the facility during regular and night hours and proposed future expansion capabilities.

b. Manufacturer Catalog Data

Manufacturer catalog data shall include industry standard quality indicators for the specific material or equipment and that will be used to establish the proposed construction quality during proposal evaluation. Data may be in the form of CSI standard product information formats Manu-Spec and Spec-Data, and/or manufacturer's specifications and details. Furnish data, arranged by CSI Divisions, on:

(1) Windows
(2) Doors
(3) Interior finishes, to include floors, base, walls, ceilings, toilet partitions, lavatory tops
(4) Exterior finishes, to include walls, roof, and soffits
(5) Interior and exterior light fixtures, including identification of where each proposed fixture type will be used
(6) Any other catalog data deemed pertinent

c. Graphic Information

Furnish preliminary drawings and schematics to illustrate the proposal. If a plan does not fit on one standard size drawing sheet at the scale specified, provide an overall plan to fit on one standard size drawing sheet plus individual sheets at the scale specified.

(1) Site Layout Plan, minimum scale 1" = 100', showing:
(a) Building location
(b) Service drives and parking
(c) Location of site features (i.e. landscaping, sidewalks, lighting, mechanical and electrical equipment, dumpsters)
(d) Set-backs

(2) Utility Layout Plan, minimum scale 1" = 100', showing:
(a) Proposed utility locations
(b) Electrical equipment

(3) Grading Plan, minimum scale 1" = 100', showing:
(a) Finished floor elevation
(b) Proposed slopes
(c) Proposed drainage

(4) Architectural Floor Plans, minimum scale 1/8" = 1', with all areas identified, showing:
(a) Gross area of building; exterior and interior dimensions; size of areas; critical and basic dimensions.

(b) Area calculations
(c) Door and window openings, including door swings
(d) Preliminary finish schedule
(e) Plumbing fixture locations, including drinking fountains
(f) Furniture layout, with seating capacity indicated

(5) Exterior Elevations (all views), minimum scale 1/8" = 1', showing:
(a) Fenestrations and material indications.
(b) Critical and basic dimensions.
(c) Exterior finish materials.

(6) Building Sections (one transverse and one longitudinal), minimum scale 1/8" = 1', showing:
(a) Space for structural and HVAC systems.
(b) Clearances.
(c) Materials.
(d) Building and grade to 5 foot line.
(e) Sloped roof and flat roof intersections.
(f) Crawl space (if proposed).

(7) Typical Exterior Wall Sections including foundations, minimum scale 3/4" = 1', indicating materials, key vertical dimensions, and clearances.

(AM#4)
d. Sustainable Design. Using the Sustainable Project Rating Tool (SPiRiT), provide a self-assessment of the sustainability features of the facility (see Volume IV ATTACHMENTS for the Sustainable Project Rating Tool manual and rating sheets). For each required element and for each point-scored element where you will meet (or exceed) the requirement, provide justification of how you will meet the stated requirement. Justification shall be documented on the non-annotated version of SPiRiT tool (SPiRiT v1.4 (.doc). April 2001) available on the Internet at http://www.cecer.army.mil/Sustdesign/SPiRiT.cfm, or use the version that is on the Solicitation CD. Justification shall be inserted in the document immediately after the requirement text for each element. Label the justification as "Justification of Scoring". Scoring shall be summarized on the SPiRiT scoring sheet (SpiRiT v1.4 (.xls), April 2001) available at http://www.cecer.army.mil/Sustdesign/SPiRiT.cfm (this file is also located on the Solicitation CD). This scoring summary shall be attached to the front of the SPiRiT tool in the submitted documentation. Goal is minimum Silver level certification. If Silver level certification cannot be attained, discuss the factors that prevent achieving this goal.

B. Preliminary Project Schedule.

A time-scaled logic diagram shall be submitted with the Preliminary Design proposal reflecting the detailed design phase activities and summary level construction activities from Notice to Proceed through final completion, including all option work. Project Schedule shall conform to Section 01320 PROJECT SCHEDULE and may be used for preparation of the Preliminary Schedule required in Section 01320 after award. The following information shall be included as a minimum:

1. Detailed design activities
2. Summary level construction activities
3. Phasing requirements
4. Critical Path
5. Milestones and Constraints
6. Overall Design Duration, in calendar days
7. Overall Construction Duration, in calendar days
8. Overall Proposed Duration, in calendar days

The contractor shall propose the contract durations for Work Item #1, Design and Construction of the new facility. The proposed duration shall not exceed the duration specified in Section 01000, Design and Construction Schedule. The proposed schedule shall support the proposed duration. Upon contract award, the successful offeror's proposed duration shall become the contract duration for Work Item #1. It should be noted that the Government will include provisions in the contract for liquidated damages for each calendar day the Contractor exceeds the contract schedule.

(AM#3)
VOLUME II Pro Forma Requirements

C. (AM#3) Pro Forma Documents

1. Solicitations, Offer and Award. The Standard Form 1442 shall be completely filled out and signed by a principal of the firm authorized to bind the design-build team. Signature(s) must be in long hand.

2. Price Proposal Schedule **(AM#3)** Prices shall be firm. The offeror's price, to be considered in the competitive negotiation evaluation, shall be the offeror's Total Base Bid, plus all options, as shown on the price proposal schedule. The cost/price proposal will be evaluated separately, after evaluation of design proposal. The cost/price proposal shall consist of the following:

a. Offerors shall complete the Price Proposal Schedule by filling out the pricing data blanks.

b. Overhead and profit shall be applied proportionally to each category and will not be required to be shown separately.

c. Offerors shall include allowance for weather days in the Cost/Price Proposal and shall schedule any contingency for severe weather in accordance with weather requirements included in Section 01000, DESIGN AND CONSTRUCTION SCHEDULE.

3. Bid Guarantee. The bid guarantee shall be submitted in accordance with Section 00700, Contract Clauses.

4. Representations and Certifications. Representations are local, state, and federal representative statements and certifications made by the Offeror concerning a variety of issues. Complete each item in Section 00600, REPRESENTATIONS AND CERTIFICATIONS, and submit one original with the Phase II proposal.

5. Subcontracting Plan. (Applies to Large Businesses only.) All large businesses shall submit a subcontracting plan with their technical and price/cost proposals. The plan shall be prepared in accordance with FAR 52.219-9. Failure to submit an acceptable subcontracting plan may make the offeror ineligible for award of the contract. The submission of the subcontracting plan is in no way advantageous to large businesses over any small business in the evaluation process. A sample subcontracting plan and scoring checklist are included on the solicitation CD-ROM disk. See Section 00100, paragraph SMALL BUSINESS SUBCONTRACTING PLAN for additional information and Fort Worth District subcontracting floors.

6. Small Disadvantaged Business (SDB) Utilization Plan. (Applies to all Offerors.) Offerors shall submit a SDB Utilization Plan, to include the following information:

a. Identification of each SDB concern proposed and the work each is to perform. (See NOTE below regarding SDB certification.)

b. Targets expressed in dollars and percentages representing each SDB concern's participation of the total contract value.

c. Total target value of all SDB participation, expressed in dollars and percentages of the total contract value.

The offeror is put on notice that any targets represented in submitted proposal will be incorporated into and become part of any resulting contract.

NOTE: All proposed SDB concerns must be certified by the Small Business Administration and listed in the online database PRO-Net. SDB concerns may register in PRO-Net at http://pronet.sba.gov.

1.10 CLARIFICATIONS AND FINAL PROPOSAL REVISION

1.10.1 General

Any conflicting criteria which cannot be resolved by the Order of Precedence specified in Section 00800 SPECIAL CONTRACT REQUIREMENTS shall be brought to the attention of the Government by the Offeror as part of the written clarification requirement of the proposal. In the absence of such request for clarification, the Offeror shall perform to the most beneficial criteria as determined by the Government.

1.10.2 Clarifications Prior to Proposal Due Date

In the event that clarifications are required prior to submitting either the Phase I or II proposal, contact the individuals listed in Section 00100, INSTRUCTIONS TO OFFERORS. All RFP holders will be advised of significant clarifications affecting the scope of the project.

1.10.3 Clarifications Submitted with Proposals

For clarifications remaining at the time and date that proposals are due, written clarifications may be included in the proposal for consideration by the Government. Clarifications submitted with proposals shall clearly identify the understanding of the RFP documents and how this understanding is reflected in the cost proposal. Extensive qualifications, exclusions and exceptions in the form of clarifications may be considered by the Government to be non-responsive and may be grounds for rejection of the proposal.

1.10.4 Final Proposal Revision

If the Contracting Officer determines that discussions are necessary, all offerors in the competitive range will be given an opportunity to submit a final proposal revision. All proposal revisions must be submitted as required in paragraphs 1.5.3.1 and 1.5.3.2.

1.11 PAYMENT FOR PROPOSALS

Those offerors given the opportunity to offer Phase II proposals but not awarded the Design/Build contract are eligible to receive $25,000 (each) as a proposal development fee. To receive this fee, the eligible offeror must have submitted a Phase II proposal that met the minimally acceptable design criteria, not have withdrawn their proposal prior to award of the Design/Build contract, and agree to give the Government total and unlimited rights to the design submitted in their Phase II proposal. After notification to the unsuccessful offerors in Phase II, a purchase order will be issued to all eligible offerors. Payment will be made upon acceptance by the offeror of the purchase order incorporating the above conditions.

Those offerors who do not want to give the Government total and unlimited rights to their design must state in their proposal that they are waiving their right to receive the proposal development fee.

1.12 NOTICE

Failure to submit all the data indicated in this section may be cause for determining a proposal non-responsive and, therefore, not considered for award.

2 PRODUCTS (NOT USED)

3 EXECUTION (NOT USED)

END OF SECTION

CHAPTER 111

FACILITY PERFORMANCE

PERFORMANCE

A. Basic Function:

1. Provide built elements and site modifications as required to fulfill needs described in the project program.

2. The complete project comprises the following elements:
   a. Substructure (A): Elements below grade and in contact with the ground.
   b. Shell (B): The superstructure, exterior enclosure, and the roofing.
   c. Interiors (C): Interior construction, stairs, finishes, and fixtures, except fixtures associated with services and specialized equipment.
   d. Services (D): Mechanized, artificial, automatic, and unattended means of supply, distribution, transport, removal, disposal, protection, control, and communication.
   e. Equipment and Furnishings (E): Fixed and movable elements operated or used by occupants in the functioning of the project.
   f. Demolition (F): Removal of unneeded and undesirable existing elements. Storm water pollution prevention at the disturbed site.
   g. Sitework (G): Modifications to the site, site improvements, and utilities.

3. Code: Make all portions of the project comply with the code. The code referred to herein consists of all applicable local, State, and federal regulations, including those listed below:
   a. **(AM#5) In the event of conflict and inconsistency between any of the provisions of the various codes, standards, or references, precedence shall be given in the following order:**
      1) **Contract requirements**
         a) **The code, standard, or reference that is listed in the Contract design or performance requirement;**
         b) **When conflict exists between references, the more stringent requirement shall govern;**
         c) **Where a particular design aspect is not covered by any of the codes, standards, or references listed, nor by the requirements specified in the Contract, the Contractor shall be guided by other nationally recognized and accepted codes or standards which do apply;**
         d) **The "authority having jurisdiction," as cided in codes, standards, or references, will be the Contracting Officer.**
      2) **Installation Design Guide**
      3) **Southwestern Division's Architectural and Engineering Instructions Manual (AEIM)**
      4) **Technical and Engineering Manuals, Instructions, Letters, Design Guides, Engineer Regulations, Pamphlets, and Bulletins**
   b. Federal Regulatory Requirements:
      1) Americans with Disabilities Act of 1990, as a public accommodation, as implemented in:
         a) 28 CFR 35, Department of Justice regulations relating to State and local governments, including ADAAG.or UFAS(FED-STD-795).
         b) 28 CFR 36, Department of Justice regulations, including ADAAG-1994.
         c) 49 CFR 27, 37, and 38, Department of Transportation regulations, including ADAAG-1994.
      2) 29 CFR 1910-1997, Occupational Safety and Health Standards, as a work place.
      3) MIL-HDBK-1008C (10 June 1997) Fire Protection For Facilities Engineering, Design and Construction

4) DG1110-3-112 Design Guide For Army Continuing Education System Centers
5) DG1110-5-110 Design Guide For Army Libraries

c. State of Louisiana regulatory requirements, which incorporate and/or amend the following:
1) **deleted (Am#4)**
2) Erosion and sedimentation control regulations.

d. Non-Regulatory Criteria Documents: In addition to specific regulatory requirements, the following documents are also incorporated into the definition of "the code" for the purposes of this project, except for administrative provisions contained therein; where referenced, the role of the code official described in the document will be performed by Government.
1) NFPA 70-2002, National Electrical Code.
2) NFPA 101-2000, Safety to Life From Fire in Buildings and Structures.
3) ICC International Building Code, 2000 edition.
4) ICC International Plumbing Code, 2000 edition.
5) ICC International Mechanical Code, 2000 edition.
6) ICC International Fuel Gas Code, 2000 edition.
7) Fort Polk Installation Design Guide
8) SWD Architectural and Engineering Instructions Manual (SWD-AEIM), October 2000
9) **DOD Interim Anti-Terrorism/Force Protection Construction Standards, December 1996. Am #0005. See Attachment M for project specific minimum requirements. Am #0006.**

e. Occupancy: The primary occupancy of the project, according to the code, is Use Group E (Educational).
1) A secondary occupancy, according to the code, is Use Group A (Assembly).

4. Environmentally Responsible Design: In addition to other requirements, provide design and construction that minimizes adverse effects on the exterior environment, enhances the quality of the indoor environment, and minimizes consumption of energy, water, construction materials, other resources, and protection of workers. Design comply with SWD-AEIM, Chapter X11, Enviromental Design. All pre-construction permits, notification, licenses and initial operation permits and related fees is in accordance with applicable Federal, state, and local regulations.
a. Achieve at least a Silver rating in accordance with Sustainable Project Rating Tool (SPiRiT) which is derived from The U. S. Green Building Council LEED 2.0 (Leadership in Energy and Environmental Design) Green Building Rating System; selection of specific credits to achieve is the responsibility of Contractor unless otherwise indicated; comply with criteria specified in current Sustainable Project Rating Tool (SPiRiT) documentation as well as related criteria specified in other chapters.
b. The goals listed below are some of those that are applicable to the project.
1) The goals indicated as "desirable" will be given high priority in evaluating proposals, as specified in Sections 00120 PROPOSAL SUBMISSION REQUIREMENTS and 00150 PROPOSAL EVALUATION AND CONTRACT AWARD.
2) The goals indicated as "if possible" must be achieved if the design and site considerations allow.
3) The goals indicated "as specified" have different requirements specified in other Chapters.
c. Site Selection: The site:
1) Is not prime agricultural land, public parkland, lower than 5 feet above the 100-year flood, habitat for threatened or endangered species, or within 100 feet of wetland.
2) Is located in an area of existing development with infrastructure services.
d. Water Conservation:
1) Landscaping requiring no potable water for maintenance: Desirable.
2) Reduction of potable water use for sewage conveyance: Required.
3) Reduction of water used by plumbing fixtures, appliances, and equipment, in excess of regulatory requirements: Desirable.
e. Energy Conservation:
1) Energy efficiency exceeding minimum by 10 percent: Desirable.

f. Conservation of Materials and Resources:
   1) Recycling and/or salvaging of construction waste: Required.
   2) Use of materials containing recycled content: Desirable.
   3) Use of local/regional materials: Desirable.
   4) Use of rapidly renewable materials: Desirable.
   5) Use of certified wood: Required.

g. Indoor Environmental Quality:
   1) Smoking will be prohibited in the building.
   2) Minimum ventilation performance: Required.
   3) Carbon dioxide monitoring and control: Not Required.
   4) Use of materials that are low-emitting, non-toxic, and chemically inert: Desirable.
   5) Control of sources of indoor pollutants: Desirable.
   6) Individual occupant control of environmental systems: If possible.
   7) Individual occupant control of lighting systems: Required.
   8) Thermal comfort conditions: As specified.
   9) Provision of daylighting: As specified.
   10) Provision of views to outdoors: Desirable.
   11) Humidity control: Required.

h. Substantiation:
   1) Design Development and Construction Documents Stages: SPiRiT Checklist annotated to show status of design related to specific credits to be achieved and a comprehensive checklist of certification document specified in SPiRiT Reference Guide annotated to show status of preparation of documentation.
   2) Design Development and Construction Documents Stages:
      a) LEED Checklist annotated to show specific credits status of design related to specific credits to be achieved.
      b) Appropriate documentation relevant to the degree of completion of the design; at subsequent design stages it will not be necessary to repeat submissions of the same documentation unless the design has changed.
   3) At Completion: Field tests demonstrating compliance with any criteria that is not possible to substantiate until completion. SPiRiT Certification.

5. In addition to the requirements of this chapter, comply with requirements of Chapter 1 - Program Summary, Chapter 11 - Program, and Chapter 00830 - Design and Construction Procedures.

B. Health and Safety:

1. Prevention of Accidental Injury: As required by code and as follows:
   a. Safety Glazing: As defined by 16 CFR 1201; provide in locations required by code.
   b. Other requirements specified in other Chapters.
   c. Substantiation:
      1) Design Development: Identification of safety measures taken, detailed description of design criteria, and structural analysis of load-resisting elements prepared by licensed structural engineer.
      2) Construction Documents: For load-resisting elements, structural design calculations and drawings sealed by licensed structural engineer.

2. Lightning Hazard: Design to prevent damage to occupants, structure, services, and contents due to lightning strikes if a lightning protection risk analysis produces a "moderate" or higher risk.
   a. Provide protection equivalent to that specified in NFPA 780-1997; supplementary strike termination devices, ground conductors, and grounding electrodes are required only where the integral portions of the structure cannot perform those functions.
   b. Ground Resistance Measurement Methods: As described in IEEE 81-1983.
   c. Substantiation:
      1) Design Development: Description of engineering basis of design, including grounding

terminal design.

2) Design Development: If grounding in very shallow or dry soil, or in rock, is required, ground resistance measurements and engineering analysis of ground terminal design.
3) Design Development: Diagrams showing locations of strike (air) terminals and zones of protection; identification of internal components that require bonding to equalize potential.
4) Construction Documents: Engineering analysis of equalization of potential to metal bodies within the structure.
5) Construction Documents: Drawings showing locations and sizes of conductors, bonding of metal bodies, and components; detailed installation specifications.
6) Commissioning: Continuity tests for grounding conductors, equipotential bonding of other systems, and ground terminals; ground resistance test for each ground terminal, or equivalent taking into account related grounding systems.
7) Commissioning: Certification of system complying with UL Master Label requirements.
8) Closeout: Maintenance and inspection procedures.
9) Closeout: Project record data; location of ground terminals, ground resistance and soil conditions at time of test.

3. Health Hazards:
   a. Design to prevent growth of fungus, mold, and bacteria on surfaces and in concealed spaces.
   b. Hazardous Construction Materials: Design and construct to comply with the requirements of the code and the following:
      1) All existing below grade non-friable asbestos and asbestos-containing or lead contaminated materials must be removed entirely from the proposed site using procedures specified by federal, state, and local regulations.
      2) No asbestos containing material.
      3) Paint proposed for use containing not more than 0.06 percent lead by weight of the non-volatile.
      4) Paint for interior use containing no mercurial mildewcide or insecticide.
      5) No Class I or Class II ozone depleting substance use for fire suppressants, refrigerants, and solvents.
      6) Substantiation:
         a) Design Development: Identification of methods to be used to comply with requirements; ventilation design calculations. Identification of unusual indoor contaminants or sources and methods to mitigate their effects on occupants.
         b) Construction Document: Certificates or manufacturer product specification showing material met the requirement. Specifications for abatement of asbestos and lead containing materials.
   c. Indoor Air Quality: Design and construct to comply with the code and the following:
      1) Acceptable air quality as defined by ANSI/ASHRAE 62-1999.
      2) Substantiation:
         a) Construction Documents: Specifications showing that construction materials are not contaminant sources and do not adversely affect air quality.
         b) Commissioning: Field measured outside and supply air quantities for each air handler.
         c) Occupancy: Field testing to show compliance, after full occupancy.

4. Electrically-Operated Equipment and Appliances: UL listed for application or purpose to which they are put; suitable for wet locations listing for exterior use.
5. **Radon Prevention and Mitigation: The designer shall use the Technical Instructions, TI 810-91 INDOOR RADON PREVENTION AND MITIGATION, dated August 1998 to determine the design criteria for radon prevention. The design guidance is available on the website www.hnd.usace.army.mil/techinfo/engpubs.htm. Per this criteria, as a**

minimum, radon levels of 0 to 4 pCi/1 shall require Design Letter Code A, Passive Barriers (see discussions and details in TI 810-91). Am#0005

6. **Anti-Terrorism/Force Protection: See Attachment M for project specific anti-terrorism/force protection standards. Am# 0006.**

C. Durability:

1. Expected Service Life Span: Expected functional service life of the built portions of this project is 50 years.
   a. Service life spans of individual elements that differ from the overall project life span are defined in other Chapters.
2. Animals: Do not use materials that are attractive to or edible by animals or birds.
3. Insects: Do not use materials that are edible by insects, unless access by insects is prevented.

D. Operation and Maintenance:

1. Energy Efficiency: Minimize energy consumption while providing function, amenity, and comfort specified.
   a. Provide energy efficient design using design information from U.S.Army Corps of Engineers Technical Instructions Design Criteria, TI-800-01 20 July 1998.
      1) Provide at least 10 percent less energy consumption than that indicated in chapter 11, table 11 of TI-800-01 when performing energy budget analysis.
   b. Substantiation:
      1) Construction Documents: Detailed listing of design criteria and design analysis showing compliance, prepared by a licensed mechanical engineer.
2. Ease of Operation: Provide facility, equipment, and systems that are easily operated by personnel with a reasonable level of training for similar activities.
   a. Minimize the need for specialized training in operation of specific equipment or systems; identify all equipment and systems for which the manufacturer recommends or provides training programs.
   b. Train Government's personnel in operation of equipment and systems; see Chapter 00830 for additional requirements. See Section 01770 CONTRACT CLOSEOUT for additional requirements.

ELEMENTS AND PRODUCTS

A. In addition to requirements specified in other chapters, provide products and elements that comply with the following.

B. Elements Made Up of More Than One Product:

1. Where an element is specified by performance criteria, use construction either proven-in-use or proven-by-mock-up, unless otherwise indicated.
   a. Proven-In-Use: Proven to comply by having actually been built to the same or very similar design with the same materials as proposed and functioning as specified.
   b. Proven-by-Mock-Up: Compliance reasonably predictable by having been tested in full-scale mock-up using the same materials and design as proposed and functioning as specified. Testing need not have been accomplished specifically for this project; when published listings of independent agencies include details of testing and results, citation of test by listing number is sufficient (submittal of all test details is not required).
   c. The Contractor may choose whether to use elements proven-in-use or proven-by-mock-up, unless either option is indicated as specifically required.
   d. Where test methods accompany performance requirements, use those test methods to test the mock-up.
   e. Exception: Where a design analysis is specified, or allowed by the Government,

substantiation of proven-in-use or proven-by-mock up construction is not required.

2. Where a type of product is specified, without performance criteria specifically applicable to the element, use the type of product specified.

3. Where more than one type of product is specified, without performance criteria specifically applicable to the element, use one of the types of products specified.

4. Where a type of product is specified, with applicable performance criteria, use either the type of product specified or another type of product that meets the performance criteria as proven-in-use or proven-by-mock-up.

5. Where more than one type of product is specified, with applicable performance criteria, use either one of the types of products specified or another type of product that meets the performance criteria as proven-in-use or proven-by-mock-up.

6. Where neither types of products nor performance criteria are specified, use products that will perform well within the specified life span of the building.

C. Products:

1. Where a product is specified only by a manufacturer name and model number/brand name, use only that model/brand product.

2. Where the properties of a product are specified by description and/or with performance criteria, use products that comply with the description and/or performance criteria.

3. Where manufacturers are listed for a particular product, use a product made by one of those manufacturers that also complies with other requirements.

4. Builders' Hardware:
   a. All hardware, including hinges, closers, locksets, exit devices, door hold open devices, and door stops, shall be grade 1 in accordance with the Builders Hardware Manufacturers Association ANSI/BHMA Standards.
   b. Lock Trim: Lock trim shall be cast, forged, or heavy wrought construction of commercial plain design. In addition to meeting the test requirement of BHMA A156.13, knobs, lever handles, roses, and escutcheons shall be 0.050 inch (1.27mm) thick, if unreinforced. If reinforced, the outer shell shall be 0.035 inch (0.89 mm) thick and the combined thickness shall be 0.070 inch (1.78 mm) except that knob shanks shall be 0.060 inch (1.52 mm) thick. Knob diameter shall be 2-1/8 to 2-1/4 inches (54 to 57 mm). Lever handles shall be of plain design with ends returned to no more than 1/2 inch (10 mm) from the door face.
   c. Lock Cylinders and Cores (Mortise, Rim and Bored)
      1) Lock cylinders shall comply with BHMA A156.5. Lock cylinder shall have not less than seven pins.
      2) Cylinders shall have key removable type cores.
         a) Disassembly of knob or lockset shall not be required to remove core from lockset.
         b) All locksets, lockable exit devices, and padlocks shall accept the same interchangeable cores.
      3) Provide a master keying system.
      4) Provide a construction master keying system .
         a) Use the manufacturer's standard construction key system.
      5) Keying: Locks shall be keyed in sets or subsets in accordance with the approved schedule. Change keys for locks shall be stamped with change number and the inscription "U.S. Property - Do Not Duplicate." The keys shall be furnished to the Contracting Officer arranged in a container in sets or subsets as scheduled.
      6) Keys shall be supplied as follows:
         a) Locks: 3 change keys each lock.
         b) Master keyed sets: 4 keys each set.

c) Construction keys: 4 total.

d. Special Requirements for Fort Polk, Louisiana

1) Lock cylinders and cores: Cylinders and cores for locksets other than those for mechanical rooms shall be manufactured by Best Lock Corporation to extend the existing Post keying system. Locksets for mechanical rooms only shall be keyed to the existing Post utilities master keying system, consisting of locksets manufactured by Arrow Lock Co., Keyway K-7; furnish keys "0" bitted.

2) Keying: Locks shall be furnished with the manufacturer's standard construction cores and key system. Permanent cylinders, cores, keys, and the lock set-up code shall be sent to the Contracting Officer by registered mail or other approved means.

5. Gypsum Board Products: Gypsum Board Products shall not contain asbestos.

SUBSTANTIATION

A. Definition: Substantiation is any form of evidence that is used to predict whether the design will comply with the requirements or to verify that the construction based on the design actually does comply. Proposal substantiation requirements are specified in Division 1 Sections 00120 PROPOSAL SUBMISSION REQUIREMENTS and 00150 EVALUATION FACTORS FOR AWARD. During Design Development and Construction Documents, requirements to submit substantiation are primarily intended to forestall use of designs or constructions that will not comply. At any time before completion of construction, substantiation is presumed to be only a prediction and may subsequently be invalidated by actual results.

1. Regardless of whether substantiation is specified or not, the actual construction must comply with the specified requirements and may, at the Government's discretion, be examined, inspected, or tested to determine compliance.

2. Substantiation submittals will not be approved or accepted, except to the extent that they are part of documents required to be approved or accepted in order to proceed to the next stage of design or construction. However, approval or acceptance of substantiation will not constitute approval or acceptance of deviations from the specified requirements unless those deviations are specifically identified as such on the submittal. See Division 1 Sections 01015 DESIGN REQUIREMENTS AFTER AWARD and 01330 CONSTRUCTION SUBMITTAL PROCEDURES for definitions of "approved" and "accepted" submittals.

3. The Government accepts the responsibility to review substantiation submittals in a timely manner and to respond if they are unacceptable.

B. In addition to the requirements stated in other chapters, provide the following substantiation of compliance at each stage of the project:

1. See also Division 1 Sections 01015 DESIGN REQUIREMENTS AFTER AWARD and 01330 CONSTRUCTION SUBMITTAL PROCEDURES for submittal requirements.

C. Design Analyses (including Engineering Calculations):

1. Where a design analysis or calculation is specified without identifying a particular method, perform analysis in accordance with accepted engineering or scientific principles to show compliance with specified requirements, and submit report that includes analysis methods used and the name and qualifications of the designer.
2. Submit design analyses at the end of Design Development and Construction Document stages as required in Division 1 Section 01016 DESIGN DOCUMENT REQUIREMENTS .

D. Products:

1. Where actual brand name products are not identified by the Government, identify the products to be used.

2. In the Proposal:
   a. See Division 1 Section 00120 PROPOSAL SUBMISSION REQUIREMENTS for

substantiation requirements.

3. During Design Development:
   a. Where more than one product type is identified for a particular system, assembly, or element, identify exactly which type will be used.
   b. For each product type, provide descriptive or performance specifications; early submittals may be brief specifications, but complete specifications are required prior to completion of construction documents.
   c. For each product type, identify at least one manufacturer that will be used.
   d. For major manufactured products that are commonly purchased by brand name, and any other products so indicated, provide manufacturer's product literature on at least one actual brand name product that meets the specifications, including performance data and sample warranty.

4. During Construction:
   a. Identify actual brand name products used for every product, except commodity products specified by performance or description.
   b. Where a product is specified by performance requirements with test methods, and if so specified, provide test reports showing compliance.
   c. Provide manufacturer's product literature for each brand name product.
   d. Provide the manufacturer's certification that the product used on the project complies with the contract documents.
   e. Builders' Hardware:
      1) **Hardware and Accessories**: Manufacturer's descriptive data, technical literature, catalog cuts, and installation instructions. Spare parts data for locksets, exit devices, closers, electric locks, electric strikes, electro-magnetic closer holder release devices, and electric exit devices, after approval of the detail drawings, and not later than 3 months prior to the date of beneficial occupancy. The data shall include a complete list of parts and supplies, with current unit prices and source of supply.
      2) **Hardware Schedule** : Hardware schedule listing all items to be furnished. The schedule shall include for each item: the quantities; manufacturer's name and catalog numbers; the ANSI number specified, sizes; detail information or catalog cuts; finishes; door and frame size and materials; location and hardware set identification cross-references to drawings; lock trim material thicknesses; lock trim material evaluation test results; corresponding reference standard type number or function number from manufacturer's catalog if not covered by ANSI or BHMA; and list of abbreviations and template numbers.
      3) **Electronic Access Systems**: Detail drawings for hardware devices for computerized keying systems, magnetic cards, keyless push button access control systems, and other electrical hardware devices showing complete wiring and schematic diagrams and other details required to demonstrate proper function of units.
      4) **Certificates of Compliance** : The hardware manufacturer's certificates of compliance stating that the supplied material or hardware item meets specified requirements. Each certificate shall be signed by an official authorized to certify in behalf of the product manufacturer and shall identify quantity and date or dates of shipment or delivery to which the certificates apply. A statement that the proposed hardware items appear in BHMA L & R Directory, BHMA Closer Directory and BHMA Exit Devices Directory directories of certified products may be submitted in lieu of certificates.
      5) **Buy American Act**: Furnish a separate certificate of compliance attesting that hardware items comform to the Section 00700 Contract Clauses pertaining to the Buy American Act.
   f. Gypsum Board Products: Submit certification that gypsum board products, such as gypsum wallboard, gypsum backing board, cementitious backer units, and joint treating materials do not contain asbestos.

5. Before End of Closeout:
   a. Provide copies of all manufacturer warranties that extend for more than one year after completion.

END OF CHAPTER 111

CHAPTER D3

HVAC - HEATING, VENTILATING, AND AIR CONDITIONING

PERFORMANCE

A. Basic Function:
   1. Provide artificial means of controlling temperature, relative humidity, velocity, and direction of air motion in the interior spaces enclosed by the shell, and reduction of airborne odors, particulates, and contaminant gases. Do not locate mechanical HVAC equipment on building roof.

   2. The HVAC system consists of the following elements:
      a. Energy Supply (D31): Elements which provide energy used to maintain building comfort.
      b. Heat Generation (D32): Elements required to heat building to maintain space comfort.
      c. Refrigeration (D33): Elements necessary to generate the cooling required to maintain building comfort.
      d. Air Distribution (D34): Elements required to distribute air to maintain building comfort.
      e. Hydronic Distribution (D35): Elements required to distribute chilled water and heating water to maintain building comfort.
      f. HVAC Controls (D36): Elements required to control equipment which maintains building comfort.

   3. In addition to the requirements of this chapter, comply with all applicable requirements of Chapter 111 - Facility Performance and Chapter D - Services.

B. Amenity and Comfort:
   1. Space Temperature Setpoint: As stated in Chapter 111.

C. Health and Safety:

   1. Emergency Power: Provide emergency power in accordance with code.
      a. Air handler.
      b. Chillers.
      c. Boilers.

   2. Electrical Shock Prevention:
      a. Provide a means of disconnecting power at each piece of equipment.

   3. Refrigerants:
      a. Comply with the requirements of ASHRAE 15-1994.
      b. Prevent release of refrigerant to atmosphere.
      c. Prevent exposure of occupants to hazardous refrigerants.
         1) Substantiation:
            a) Construction: Measurement of refrigerant concentration in mechanical equipment rooms where refrigerants are located.

   4. Indoor Air Quality: Provide sufficient ventilation to obtain acceptable indoor quality, determined using the Ventilation Rate Procedure of ANSI/ASHRAE 62-1999 .
      a. Substantiation:
         1) Design Development: Engineering analysis.
         2) Occupancy: Field testing and survey of occupants.

PRODUCTS

A. HVAC System Type:

   1. Use the following:
      a. Central HVAC Systems:
         1) Central chilled water and hot water heating systems with air handlers.

2) Hot water heating system.
3) Chilled water supplied by an air-cooled chiller.
4) Variable volume and constant volume air handlers with air terminals.
5) **Central condenser water loop with ground source heat pump. [AM# 0006]**

END OF CHAPTER D3

CHAPTER G28 – GENERAL CIVIL DESIGN AND SITE REQUIREMENTS

PART 1- GENERAL

1.1 REFERENCES

The design of this facility shall comply with the requirements of the applicable parts of the following references:

CESWD Architectural and Engineering Instruction Manual (CESWD-AEIM)

Uniform Federal Accessibility Standards, Federal Register (UFAS)

Americans with Disabilities Act Guidelines (ADA)

TM 5-803-5, Installation Design

TM 5-803-14, Site Planning and Design

TM 5-813-5, Water Supply, Water Distribution Systems

TM 5-814-1, Sanitary and Industrial Wastewater Collection- Gravity Sewers and Appurtenances

TM 5-814-2, Sanitary and Industrial Wastewater Collection- Pumping Stations and Force Mains

TM 5-820-4, Drainage for Areas Other Than Airfields

TM 5-822-2, General Provisions and Geometric Design for Roads, Streets, Walks, and Open Storage Areas

TM 5-822-5, Pavement Design for Roads, Streets, Walks, and Open Storage Areas

TM 5-822-7, Standard Practice for Concrete Pavements

TM 5-848-1, Gas Distribution

DG 1110-3-204, Design Guide for Army and Air Force Airfields, Pavements, Railroads, Storm Drainage, and Earthwork

MIL-HDBK-1008A, Fire Protection for Facilities

MIL-HDBK-1190, Facility Planning and Design Guide

HQUSACE Architectural and Engineering Instructions- Design Criteria (USACE AEI)

1.2 PROJECT LOCATION

This project is to be constructed on the Fort Polk Army Base, on a site bound on the north by Louisiana Avenue, and on the west and east by Utah and Colorado Avenues, respectively. The new facility will be located on the site bound to the immediate north by Wyoming Avenue and to the far north by Louisiana Avenue. The southern boundary is Montana Avenue. Utah and Colorado Avenues encompass the western and eastern boundaries, respectively.

1.3 GENERAL INFORMATION

1.3.1 Contractor Storage Area

A Contractor storage area will be available at the southern end of the site. The Contractor will be responsible for providing security fencing for the project site and the storage area.

1.3.2 Contractor Haul Route

The primary haul route will be from Highway 467, going east on Louisiana Avenue and south on Colorado Avenue. The secondary route will be north on Highway 467, east on BellRichard Avenue and north on Colorado.

1.3.3 Borrow and Disposal Areas

No borrow or waste disposal areas are available on Fort Polk Army Base. Borrow and waste disposal areas shall be located off of Government-controlled property and shall be the responsibility and expense of the Contractor.

1.3.4 Utilities

Water, electricity and telephone will be available to the Contractor for use during construction.

1.3.5 Geotechnical Information

Geotechnical investigation shall be the responsibility of the designer. See Attachment I, of this contract document, for the soils report and foundation design requirements.

1.3.6 Specifications

Construction Specification Institute (CSI) or Army Corps of Engineers guide specifications may be used by the designer.

PART 2- SITE DEMOLITION

2.1 The proposed site used to house rows of World War II hospital buildings, which have been demolished and the existing utilities were abandoned in place, except for the steam lines. Any existing utilities and associated structures, not incorporated into the design of the new facility, shall be demolished to the extent they fall within the boundaries of new construction and removed from the site.

2.2 The Contractor shall field verify exact locations of underground utilities prior to commencement of any excavation or trenching operations. Existing utility mains or service lines that cross under the proposed building footprint shall be rerouted around the new facility.

2.3 Existing trees are located along the southern, eastern and western boundaries of the site. They consist primarily of pine trees and should be removed, as needed, to develop the site. The Installation will remove any materials desired for salvage.

2.4 Waste materials and construction debris shall be disposed of off Government property at the responsibility and expense of the Contractor. The use of burning at the project site for the disposal of refuse and debris will not be permitted. The use of explosives will not be permitted.

PART 3- SITE DESIGN

3.1 The new facility will be located on the site bound to the immediate north by Wyoming Avenue and to the far north by Louisiana Avenue. The southern boundary is Montana Avenue. Utah and Colorado Avenues encompass the western and eastern boundaries, respectively. Colorado Avenue will be the main thoroughfare in this area, which should be considered when orienting the new building and support facilities. An existing playground, park and pond (Catfish Cove) are located to the north, between Wyoming and Louisiana Avenues. These features should also be considered and incorporated, as feasible, when developing the orientation of the site. A Family Readiness Center (FRC) is proposed for future construction immediately south and adjacent to the proposed site. Support parking should be developed to allow for shared use and future expansion, as needed, to support the FRC. Creativity is encouraged in developing a site orientation and layout, which ties the existing and future facilities into this project. The object for this, and future projects in this area, is to develop a town center concept.

3.2 Provide a new POV parking area that can accommodate 400 base bid parking spaces, including motorcycle and handicapped accessible spaces, and an option to construct an additional 150 spaces. Access to parking area can be from both Utah and Colorado Avenues but the Utah Avenue access should align with the southern loop of Oregon Avenue. Parking should be arranged in a manner that makes efficient use of the site and provides for logical extension for the parking that will be associated with the future Family Readiness Center, to be constructed south of the new facility. The preference for the new parking area is to provide one-way, angled access aisles, if space permits. Curb and gutter will be utilized for drainage control. Painted end islands and directional arrows will be used for traffic control. If raised end islands are provided, the interior shall be concrete paved in lieu of landscaping or turf because of maintenance concerns. Access road and POV parking radii shall be designed to accommodate the Installation requirements for fire engines. Access to at least 3 sides of the building will be included for fire protection measures. A fire lane will be provided next to the building, if feasible, but should be protected in accordance with the criteria specified in Attachment "M" for force protection. Motorcycle and bicycle spaces will also be included. Security lighting will be provided. [AM# 0006]

3.3 Wyoming Avenue runs east to west across the site and will be repaved and widened, as needed, to provide access to the site off Colorado and Utah Avenues. Walks shall be designed to connect the new parking areas to the building and to the playground. Handicapped access will be provided and shall comply with applicable ADA and UFAS requirements.

3.4 Provide a covered designated smoking area at least 15.240 meters (50 feet) from the building, with covered access. Ramps for off loading books and supplies are also desired in the service area. The G3 Military Schools Program will also require an open, turfed area adjacent to the site for MBC training. It is proposed that the area east of the playground and northeast of the site, be developed for this function.

3.5 Existing trees are located along the southern, eastern and western boundaries of the site. They consist primarily of pine trees and should be removed, as needed, to develop the site. The Installation will remove any materials desired for salvage. Landscaping should incorporate hardwoods that are compatible and readily available to the area. Landscaping should be provided that is low maintenance, yet adds to the aesthetic features of the project. An irrigation system shall also be provided. Landscaping should also be designed to consider sustainability benefits. Any raised islands to be used for landscaping purposes should be of considerable size, 3.050M X 3.660M (10’ X 12’) and larger, to aid in maintenance.

3.6 Force protection requirements shall be incorporated into this project. Refer to Attachment "M" for criteria and design guidance. Dumpster pads shall be sized to accommodate both traditional and recyclable waste bins and shall be screened with a 1.830 meter (6 feet) high wall. The wall shall be constructed of materials that match the proposed materials for the building. Sustainability requirements shall be considered and incorporated, as feasible. The building should be oriented, as feasible, to utilize solar orientation for energy efficiency. [AM# 0006]

PART 4- EARTHWORK/GRADING

4.1 Site topography easily accommodates the proposed facility. The existing grade is relatively flat across the project site. The objective of the grading scheme should be to minimize and balance earthwork to the greatest extent possible. The project site is approximately 11 acres. A Stormwater Pollution Prevention Plan is required. Silt fences, hay bale barriers and other stormwater controls shall be required to prevent the movement of silt and other construction debris from the construction site.

4.2 No underground storm drainage system is available on the Installation; therefore, site drainage shall be accomplished by the use of sheet flow and ditch and culvert design. If an underground system is designed to drain the site, storm drainage pipes shall be a minimum of 450 millimeters (18").

4.3 All earthwork shall be unclassified excavation. Borrow and disposal areas shall be located off of Government-controlled property at the responsibility of the Contractor.

4.4 The finish floor elevation of the building shall be 300 millimeters (1 foot) above the outside finished grade. The outside finished grade will slope away from the building at a 5% slope for the first 3 meters (10 feet). Lawn areas shall have a minimum slope of 2% and a maximum slope of 25%. The preferred minimum longitudinal ditch gradient is 0.5%.

4.4 Finished grade contours at 0.25 meter intervals and spot elevations shall be provided. Sufficient spot elevations shall be provided such that interpolation between the contours is not required; some examples are: corners of paved areas, low and high points, flow lines of swales and ditches, changes in slope and grading at building corners to ensure positive drainage away from the building. The use of cut and fill symbols in lieu of finish grade contours is not permitted.

4.5 All earthwork shall be accomplished with (and tested for) density control typical for the proposed use of the area (i.e. below building slabs, below turfed areas, backfill of utility trenches).

PART 5- PAVEMENT

5.1 Walks

Pavement shall consists of 100mm (4”) reinforced concrete on top of the raw subgrade. Raw subgrade shall be compacted below all sidewalks. Minimum walk width shall be 1.220 meters (4 feet). All sidewalk intersections shall be provided with a 1 meter (3 feet) triangular chamfer. Sidewalks shall be reinforced with 150mm X 150mm- W3 X W3 welded wire mesh. Sidewalks leading up to the new facility will meet ADA and UFAS requirements.

5.2 Access Drives

5.2.1 Geometric design shall conform to the applicable portions of TM 5-803-5, TM 5-803-14, TM 5-822-2 and CESWD-AEIM.

5.2.2 Flexible pavement design and construction details shall be in accordance with TM 5-822-5 and CESWD-AEIM.

5.2.3 Rigid pavement design and construction details shall be in accordance with TM 5-822-5, TM 5-822-7, DG 1110-3-204 and CESWD-AEIM. A joint pattern with sufficient vertical control information capable of providing accurate elevations for setting of paving forms shall be provided for all rigid pavements.

PART 6- UTILITIES

6.1 General

6.1.1 All utilities necessary to service the new facility are readily available within or along the perimeter of the project site. Excavation of trenches, installation of lines and backfilling for utilities shall be in accordance with earthwork and grading requirements and conform to standard military construction practices.

6.1.2 The bedding surface of the pipe shall provide a firm foundation of uniform density throughout the entire length of the pipe.

6.1.3 Water and gas service lines shall be metered. Meters shall be equipped with pulse initiators.

6.1.4 All underground metallic utility lines, building stubouts, fire hydrants and valves shall be provided with a bonded coating and cathodic protection. When non-metallic piping is installed underground and connected to metallic piping, a #8HMWPF wire shall be thermit-welded to the metallic pipe and run the length of the non-metallic piping to provide continuity of the cathodic protection system and to permit locating the pipe with a magnetic detector. The wire shall be continuous and accessible aboveground at all valves and building risers.

6.1.5 Flow data for gas and water utilities in the area can be obtained from the Installation's DPW office and Fire Department. Electronic copies of the base utility maps for the project area will be furnished with the advertisement package.

6.1.6 The Contractor shall provide a minimum of 1 week notice to the Installation's DPW office of any planned utility outages.

6.1.7 All gravity flow lines of more than one manhole shall be profiled. Sections shall be provided for all culverts.

6.2 Water Service

6.2.1 Piping for water service lines less than 75 millimeters (3") in diameter shall be galvanized steel, polyvinyl chloride (PVC) plastic or copper tubing. All water line services shall be valved and metered outside the building.

6.2.2 Piping for water distribution lines 75 millimeters (3") or larger shall be ductile iron or Polyvinyl Chloride (PVC) plastic and provided with appropriate thrust restraint.

6.2.2.1 When installed underground, ductile iron pipe, joints, fittings and specials shall be protected with a factory applied 500 micrometer (20 mil) thick coal-tar epoxy coating. Piping shall be checked with a holiday tester prior to burial. Any flaws in the protective coating shall be repaired in accordance with the manufacturer's recommendations. Any pipe with flaws exceeding 1300 square millimeters (2 square inches) shall be replaced with new pipe or repaired at the factory.

6.2.3 At least two hydrants will be provided for the facility. Fire hydrants shall have a 150mm (6”) bell connection, two 65mm (2 ½”) hose connections and one 115mm (4 ½”) pumper connection. All hydrants shall be installed with a 150mm (6") gate valve for isolation.

6.2.4 Design shall be in accordance with TM 5-813-5.

6.2.5 Profiles for water lines will be provided when crossings of other new or existing underground utilities will occur.

6.3 Sanitary Sewer

6.3.1 Piping for sanitary sewer line shall be cast iron soil pipe, ductile iron pipe, extra strength clay pipe or plastic (ABS, PVC, RPMP, RTRP or HDPE) pipe. Fittings shall be compatible with the pipe supplied and shall have a strength not less than that of the pipe. Building service lines shall be a minimum of 150 millimeters (6 inches) in diameter.

6.3.2 Branch connections shall be made by the use of regular fittings or saddles, as approved. Sanitary sewer manholes shall be reinforced cast-in-place or precast concrete. Frames and covers shall be cast iron or ductile iron.

6.3.3 Where the location of the sewer is not clearly defined by dimensions on the drawings, the sewer will not be closer than 3 meters to a water-supply main or service line, except that where the bottom of the water pipe will be at least 300mm above the top of the sewer pipe, the horizontal spacing may be a minimum of 2 meters. Where gravity flow sewers cross above water lines, the sewer pipe, for a distance of 3 meters on each side of the crossing, shall be fully encased in concrete or shall be acceptable pressure pipe with no joint closer than 1 meter horizontally to the crossing. The thickness of the concrete encasement including that at the pipe joints shall not be less than 100 millimeters (4").

6.3.4 Design shall be in accordance with TM 5-814-1 and TM 5-814-2.

6.4 Storm Drains

6.4.1 Storm drainage improvements shall be designed in accordance with industry standards, Installation requirements and criteria presented in CESWD-AEIM and TM 5-820-4.

6.4.2 Pipe for storm drains for sizes 300mm (12") and larger shall be include reinforced concrete pipe; fully coated, fully paved or lined, corrugated steel pipe, fully coated and lined corrugated aluminum alloy pipe, ductile iron culvert pipe, PVC pipe (ribbed, corrugated and smooth wall), and corrugated PE pipe. For pipe sizes less than 300mm (i.e. roof drains) pipe materials shall include non-reinforced concrete pipe, clay pipe, PVC and PE pipe. Manholes shall be reinforced cast-in-place or precast concrete.

6.5 Natural Gas

6.5.1 Piping for all new natural gas lines shall include steel pipe, polyethylene pipe and fiberglass pipe. Valves shall be steel or polyethylene.

6.5.2 Design shall be in accordance with TM 5-848-1.

PART 7 – TURFING AND LANDSCAPING

7.1 All unpaved, graded and disturbed areas resulting from the Contractor's operations shall receive turfing. Turfing shall consist of fertilizing, tilling and seeding of Common Bermudagrass. Maintenance of all turfed areas will include watering, mowing, refertilizing and maintaining, to secure a satisfactory turf.

7.2 Landscaping should incorporate hardwoods that are compatible and readily available to the area. Landscaping should be provided that is low maintenance, yet adds to the aesthetic features of the project. An irrigation system shall also be provided. Landscaping should also be designed to consider sustainability benefits. Any raised islands to be used for landscaping purposes should be of considerable size (10' X 12' and larger) to aid in maintenance.

PART 8 – GENERAL CIVIL DRAWINGS REQUIREMENTS:

8.1 Master site drawings with up-to-date modifications/additions

8.1.1 Detailed Site Survey (Topographic and Utilities).

8.1.2 Contractor's Office, Parking and Staging area.

8.1.3 Limits of construction and limits of grading.

8.1.4 Temporary fencing.

8.2 Site Layout (complete plans with dimensional control)

8.2.1 Building stoops, steps, sidewalks, etc.

8.2.2 Underground structures such as manholes, meter pits, etc.

8.2.3 Trash Dumpster pads (Traditional and Recycible waste)

8.2.4 Screenwalls, fences, etc.

8.2.5 Setbacks, easements, etc.

8.3 Grading and Drainage Plan

8.3.1 New and existing contour lines with spot elevations, as necessary.

8.3.2 Complete storm drainage system plan and profiles.

8.3.3 Building finish floor elevation.

8.3.4 Limits of construction and limits of grading.

8.3.5 Identify and provide protection for existing trees to remain.

8.3.6 Berms, swales, etc.

8.3.7 Temporary and permanent erosion control measures.

8.4 Site Utility Plan

8.4.1 Sanitary Sewer

8.4.1.1 Sanitary sewer lines and manholes.

8.4.1.2 Complete gravity line profiles.

8.4.2 Water

8.4.2.1 Fire hydrants, lines and PIVs.

8.4.2.2 Meters and valves.

8.4.3 Other Utilities

8.4.3.1 Hot and chilled water supply and return.

8.4.3.2 Natural gas lines, valves and meters.

8.5 Site Details

8.5.1 Paving, curbs and gutters, jointing, etc.

8.5.2 Manholes, inlets, etc.

8.5.3 Screenwalls, fences, dumpster pads, etc.

8.5.4 Paving surfaces, joint patterns, etc.

8.5.5 Miscellaneous site and utility details.

END OF CHAPTER G28

SECTION 01361

SPECIAL PROJECT PROCEDURES FOR FORT POLK
AM# 0006

PART 1 GENERAL

1.1 EXCAVATION AND TRENCHING

Excavation and/or trenching operations to be performed outside the (designated) limits of construction, for utility tie-ins, correction of drainage problems, or for other reasons as may be required under the terms of the contract, shall not be performed without a permit; and such work shall only be performed during normal duty hours unless otherwise approved by the Contracting Officer. Permit requests must be submitted to the Contracting Officer a minimum of 14 calendar days prior to commencement of excavation or trenching operations beyond construction limits.

1.2 **NOT APPLICABLE [AM# 0006]**

1.3 DISPOSAL OF DEMOLITION AND CONSTRUCTION DEBRIS

Unless otherwise indicated, demolition and construction debris shall be disposed of outside the limits of Government controlled land and the Contractor shall comply with all local and state regulatory requirements in his disposal operations.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

Library / Ed Center

Ft Polk, LA

U S Army Corps of Engineers
Fort Worth District

NOTES

- ALL AREAS ARE IN SQUARE FEET
- THIS DIAGRAM REPRESENTS BASIC ADJACENCIES REQUIRED BY THE DIFFERENT USERS. DESIGNER / BUILDER SHALL EVALUATE THIS DIAGRAM AND COORDINATE WITH USER ALL / ANY MODIFICATIONS AND CHANGES TO THE PROGRAM OF AREAS.
- THE DESIGNER / BUILDER SHALL NOT BE FORCED TO A PARTICULAR SOLUTION OR INFLUENCED BY THIS DIAGRAM TO A PARTICULAR FLOOR PLAN. IT IS ENCOURAGED THAT THE DESIGNER REACH ITS OWN CONCLUSIONS AND RECOMMENDATIONS BASED ON PROGRAM REQUIREMENTS AND CRITERIA.
- DEPENDING ON THE PROPOSER'S SOLUTION, IT MAY BE NECESSARY TO SUBDIVIDE AREAS LIKE LOBBIES AND MECHANICAL ROOMS TO FURTHER SATISFY THE BUILDING NEEDS. FOR EXAMPLE, THE "TESTING AREA" MAY NEED A SEPARATE WAITING ROOM IF THE MAIN LOBBY IS NOT ADEQUATE TO ALLOCATE THIS FUNCTION THERE.
- DUE TO PROGRAMMING CONSTRAINTS, THE LIBRARY WILL NOT HAVE A LARGE CONFERENCE ROOM OR COMPUTER ROOM. IT IS DESIRED THAT THE RESOURCES LOCATED IN THE EDUCATION CENTER BE MADE AVAILABLE TO THE LIBRARY FOR SHARING OF THESE RESOURCES. IN LIGHT OF THIS, BOTH THE LECTURE ROOM AND THE COMPUTER ROOMS IN THE EDUCATION CENTER HAVE BEEN LOCATED IN CLOSE RELATIONSHIP WITH THE LIBRARY.
- BUILDING EXPANDABILITY IS OF UTMOST IMPORTANCE TO THE USER. THE LIBRARY EXPECTS TO SIGNIFICALLY INCREASE ITS BOOK COLLECTION IN THE YEARS TO COME. AS SUCH, IT WILL BECOME A BASIS OF EVALUATION FOR SELECTING THE APPROPRIATE FINAL SOLUTION.
- THE CLASSROOMS LOCATED IN BOTH THE G3 AND ED CTR OF THE FACILITY WILL BE OPERATED AFTER HOURS. DESIGN THESE AREAS SO THAT THEY ARE MADE AVAILABLE TO STUDENTS WHILE THE REST OF THE BUILDING REMAINS CLOSED.
- COORDINATE WITH POST MASTER PLANNING OFFICIALS TO COMPLEMENT ALL OTHER FACILITIES PLANNED FOR THIS AND OTHER SURROUNDING SITES. IT IS DESIRABLE THAT ALL BUILDINGS IN THIS AREA BECOME A SMALL "TOWN CENTER" FOR THE FORT POLK COMMUNITY.
- THE FOLLOWING CRITERIA SHOULD ALSO BE RESEARCHED FOR PLANNING OF THIS FACILITY:

  DG 1110-3-112 DESIGN GUIDE FOR ARMY CONTINUING EDUCATION CENTERS

  DG 1110-3-110 DESIGN GUIDE FOR ARMY LIBRARIES

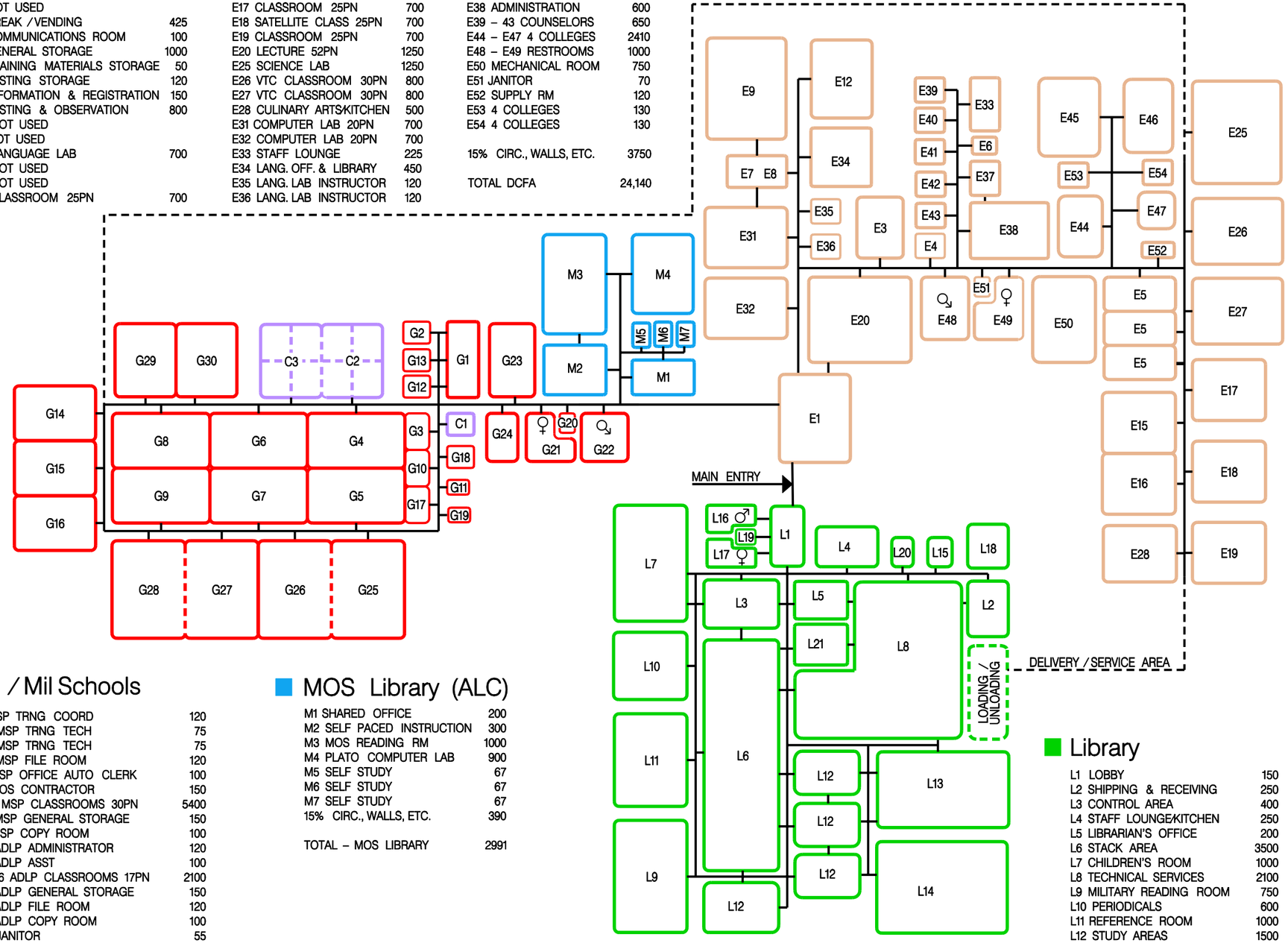
  FORT POLK INSTALLATION DESIGN GUIDE
- THE DESIGNER BUILDER WILL DESIGN THE LOADING / UNLOADING AREA OF THE LIBRARY FOR DELIVERY OF BOOKS IN CASES OF VARIOUS SIZES. AN ELEVATED PLATFORM IS NOT REQUIRED FOR THIS FUNCTION.

LEGEND

- PRIMARY RELATIONSHIP
- SECONDARY CONNECTION
- DASHED LINES BETWEEN ROOMS INDICATE MOVEABLE PARTITIONS.
- DASHED BLOCKS INDICATE EXTERIOR ACTIVITY (WITH ROOF)

DCFA Ed Div

E1 LOBBY	500	E16 CLASSROOM 25PN	700	E37 ED DIV DIRECTOR	270
E2 NOT USED		E17 CLASSROOM 25PN	700	E38 ADMINISTRATION	600
E3 BREAK / VENDING	425	E18 SATELLITE CLASS 25PN	700	E39 – 43 COUNSELORS	650
E4 COMMUNICATIONS ROOM	100	E19 CLASSROOM 25PN	700	E44 – E47 4 COLLEGES	2410
E5 GENERAL STORAGE	1000	E20 LECTURE 52PN	1250	E48 – E49 RESTROOMS	1000
E6 TRAINING MATERIALS STORAGE	50	E25 SCIENCE LAB	1250	E50 MECHANICAL ROOM	750
E7 TESTING STORAGE	120	E26 VTC CLASSROOM 30PN	800	E51 JANITOR	70
E8 INFORMATION & REGISTRATION	150	E27 VTC CLASSROOM 30PN	800	E52 SUPPLY RM	120
E9 TESTING & OBSERVATION	800	E28 CULINARY ARTS/KITCHEN	500	E53 4 COLLEGES	130
E10 NOT USED		E31 COMPUTER LAB 20PN	700	E54 4 COLLEGES	130
E11 NOT USED		E32 COMPUTER LAB 20PN	700		
E12 LANGUAGE LAB	700	E33 STAFF LOUNGE	225	15% CIRC., WALLS, ETC.	3750
E13 NOT USED		E34 LANG. OFF. & LIBRARY	450		
E14 NOT USED		E35 LANG. LAB INSTRUCTOR	120	TOTAL DCFA	24,140
E15 CLASSROOM 25PN	700	E36 LANG. LAB INSTRUCTOR	120		



G3 / Mil Schools

G1 MSP TRNG COORD	120
MSP TRNG TECH	75
MSP TRNG TECH	75
MSP FILE ROOM	120
G2 MSP OFFICE AUTO CLERK	100
G3 MOS CONTRACTOR	150
G4–9 MSP CLASSROOMS 30PN	5400
G10 MSP GENERAL STORAGE	150
G11 MSP COPY ROOM	100
G12 ADLP ADMINISTRATOR	120
G13 ADLP ASST	100
G14–16 ADLP CLASSROOMS 17PN	2100
G17 ADLP GENERAL STORAGE	150
G18 ADLP FILE ROOM	120
G19 ADLP COPY ROOM	100
G20 JANITOR	55
G21 – 22 RESTROOMS	370
G23 BREAK / VENDING	425
G24 STAFF LOUNGE	225
G25 CLASSROOM 30PN	900
G26 CLASSROOM 30PN	900
G27 CLASSROOM 30PN	900
G28 CLASSROOM 30PN	900
G29 COMPUTER LAB 20PN	700
G30 COMPUTER LAB 20PN	700
15% CIRC., WALLS, ETC.	2663
TOTAL G3 / MIL SCHOOLS	17718

MOS Library (ALC)

M1 SHARED OFFICE	200
M2 SELF PACED INSTRUCTION	300
M3 MOS READING RM	1000
M4 PLATO COMPUTER LAB	900
M5 SELF STUDY	67
M6 SELF STUDY	67
M7 SELF STUDY	67
15% CIRC., WALLS, ETC.	390
TOTAL – MOS LIBRARY	2991

CPAC DoD SCHOOLS

C1 ADMINISTRATOR	100
C2 CLASSROOM 25PN	700
C3 CLASSROOM 25 PN	700
15% CIRC., WALLS, ETC.	237
TOTAL – CPAC	1737

Library

L1 LOBBY	150
L2 SHIPPING & RECEIVING	250
L3 CONTROL AREA	400
L4 STAFF LOUNGE/KITCHEN	250
L5 LIBRARIAN'S OFFICE	200
L6 STACK AREA	3500
L7 CHILDREN'S ROOM	1000
L8 TECHNICAL SERVICES	2100
L9 MILITARY READING ROOM	750
L10 PERIODICALS	600
L11 REFERENCE ROOM	1000
L12 STUDY AREAS	1500
L13 STORAGE	1000
L14 MULTI-MEDIA	1100
L15 COMMUNICATIONS	120
L16 – 17 RESTROOMS	350
L18 MECHANICAL	255
L19 JANITOR	50
L20 STAFF TOILET & LOCKERS	100
L21 LIBRARY TECHNICIANS	250
15% CIRC., WALLS, ETC.	2239
TOTAL – LIBRARY	17164

ACCOMPANYING AMENDMENT NO. 0006 TO SOLICITATION NO. DACA63-02-R-0007

ATTACHMENT B

Schedule of Areas

For

Consolidated Library/Education Center

PN 002298
FY 02

CONSOLIDATED LIBRARY / EDUCATION CENTER - Schedule of Areas

Fort Polk, Louisiana

Room/Space	Area (SF)	Area (SM)	Space
Area 1 - Library			
Lobby	150.00	13.95	**L1**
Receiving/Input area	250.00	23.25	**L2**
Circulation Desk/Control Area	400.00	37.20	**L3**
Staff Lounge/Kitchen	250.00	23.25	**L4**
Librarian's Office	200.00	18.60	**L5**
Stack Areas	3,500.00	325.50	**L6**
Children's Rm	1,000.00	93.00	**L7**
Technical Services	2,100.00	195.30	**L8**
Military Reading Rm	750.00	69.75	**L9**
Periodicals	600.00	55.80	**L10**
Reference Rm	1,000.00	93.00	**L11**
Study Areas	1,500.00	139.50	**L12**
Storage	1,000.00	93.00	**L13**
Multi-Media	1,100.00	102.30	**L14**
Communications	120.00	11.16	**L15**
Restrooms	350.00	32.55	**L16,17**
Mechanical	255.00	23.72	**L18**
Janitor	50.00	4.65	**L19**
Staff Toilet & Lockers	100.00	9.30	**L20**
Library Technicians	250.00	23.25	**L21**
Circulation, walls, etc. (15%)	**2,239.00**	**208.23**	
Sub-Total	**17,164.00**	**1,596.25**	
Area 2 - MOS Library			
Shared Office	200.00	18.60	**M1**
Self-Paced Instruction 20PN	300.00	27.90	**M2**
MOS Library	1,000.00	93.00	**M3**
PLATO Computer Lab 20PN	900.00	83.70	**M4**
Self Study	67.00	6.23	**M5**
Self Study	67.00	6.23	**M6**
Self Study	67.00	6.23	**M7**
Circulation, walls, etc. (15%)	**390.00**	**36.27**	
Sub-Total	**2,991.00**	**231.66**	

Area 3 - Education Center - DCFA

Lobby	500.00	46.50	**E1**
(Not used)			**E2**
Break/Vending	425.00	39.53	**E3**
Communications Rm	100.00	9.30	**E4**
General Storage (3)	1,000.00	93.00	**E5**
Training Mats Storage	50.00	4.65	**E6**
Testing Storage	120.00	11.16	**E7**
Information & Registration	150.00	13.95	**E8**
Testing & Observation	800.00	74.40	**E9**
(Not used)			**E10**
(Not used)			**E11**
Language Lab	700.00	65.10	**E12**
(Not used)			**E13**
(Not used)			**E14**
Classroom 25PN	700.00	65.10	**E15**
Classroom 25PN	700.00	65.10	**E16**
Classroom 25PN	700.00	65.10	**E17**
Satellite Class 25PN	700.00	65.10	**E18**
Classroom 25PN	700.00	65.10	**E19**
Lecture 52PN	1,250.00	116.25	**E20**
Science Lab	1,250.00	116.25	**E25**
VTC Classroom 25PN	800.00	74.40	**E26**
VTC Classroom 25PN	800.00	74.40	**E27**
Culinary Arts / Kitchen	500.00	46.50	**E28**
Computer Lab 20PN	700.00	65.10	**E31**
Computer Lab 20PN	700.00	65.10	**E32**
Staff Lounge	225.00	20.93	**E33**
Lang. Lab Office & Library	450.00	41.85	**E34**
Lang. Lab Instructor	120.00	11.16	**E35**
Lang. Lab Instructor	120.00	11.16	**E36**
Ed Div Director	270.00	25.11	**E37**
Ed Div Administration	600.00	55.80	**E38**
Counselor 1	130.00	12.09	**E39**
Counselor 2	130.00	12.09	**E40**
Counselor 3	130.00	12.09	**E41**
Counselor 4	130.00	12.09	**E42**
Counselor 5	130.00	12.09	**E43**
4 Colleges - CMU	500.00	46.50	**E44**
4 Colleges - CTC	1,100.00	102.30	**E45**
4 Colleges - UIU	660.00	61.38	**E46**
4 Colleges - LSU	150.00	13.95	**E47**
4 Colleges - (Unassigned)	130.00	12.09	**E53**
4 Colleges - (Unassigned)	130.00	12.09	**E54**
Restrooms	1,000.00	93.00	**E48,49**
Mechanical	750.00	69.75	**E50**
Janitor	70.00	6.51	**E51**
Supply Rm	120.00	11.16	**E52**
Circulation, walls, etc. (15%)	**3,750.00**	**348.75**	

Sub-Total	**24,140.00**	**2,245.02**	
Area 4 - CPAC DoD Schools			
Administrator	100.00	9.30	**C1**
Classroom	700.00	65.10	**C2**
Classroom	700.00	65.10	**C3**
Circulation, walls, etc. (15%)	**237.00**	**22.04**	
Sub-Total	**1,737.00**	**161.54**	
Area 5 - G3/Mil Schools			
Trng Coordinator	120.00	11.16	**G1**
Training Tech	75.00	6.98	
Training Tech	75.00	6.98	
File Rm	120.00	11.16	
Office Auto Clerk	100.00	9.30	**G2**
MOS Contractor	150.00	13.95	**G3**
Classroom 30PN	900.00	83.70	**G4**
Classroom 30PN	900.00	83.70	**G5**
Classroom 30PN	900.00	83.70	**G6**
Classroom 30PN	900.00	83.70	**G7**
Classroom 30PN	900.00	83.70	**G8**
Classroom 30PN	900.00	83.70	**G9**
General Storage	150.00	13.95	**G10**
Copy Rm	100.00	9.30	**G11**
Administrator	120.00	11.16	**G12**
Assistant	100.00	9.30	**G13**
Classroom 17PN	700.00	65.10	**G14**
Classroom 17PN	700.00	65.10	**G15**
Classroom 17PN	700.00	65.10	**G16**
General Storage Rm	150.00	13.95	**G17**
File Room	120.00	11.16	**G18**
Copy Rm	100.00	9.30	**G19**
Janitor	55.00	5.12	**G20**
Restrooms	370.00	34.41	**G21,22**
Seminar / Break Rm	425.00	39.53	**G23**
Staff Lounge	225.00	20.93	**G24**
Classroom 30PN	900.00	83.70	**G25**
Classroom 30PN	900.00	83.70	**G26**
Classroom 30PN	900.00	83.70	**G27**
Classroom 30PN	900.00	83.70	**G28**
Computer Lab 20PN	700.00	65.10	**G29**
Computer Lab 20PN	700.00	65.10	**G30**
Circulation, walls, etc.	**2663.00**	**247.66**	
Sub-Total	**17,718.00**	**1,647.77**	
Total	**63,750.00**	**5,882.25**	

ATTACHMENT C

Room Functional Requirements
For
Consolidated Library/Education Center

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Common

Room Name: Lobby

E1

Relationships

Primary

Main lobby area for education Center.

Secondary

Also used as waiting room for Testing function (E7 – E9) within Ed Ctr. Designer-Builder may choose to provide separate waiting room for Testing Area.

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	500
No of Rooms Required:	1 ea.
Time and Days of Operation:	M – F 0800 - 1700

Existing Area

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC	NR
Plumbing	NR

Electrical

General use duplex receptacle(s) and one duplex receptacle for amplifier above ceiling near speaker.

Communications

Rough-in for recessed PA speaker and video camera. Coordinate location with waiting area.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for Chairs if used as Waiting Room for Testing Area

Equipment and Type

Space for wall mounted video camera,
recessed ceiling speaker and
PA amplifier

Remarks

Lighting level: 10 footcandles at finished floor.

Lobby will be partially used as a waiting area for personnel seeking counseling.

Provide conduits (with pull wires) and j-boxes for future wiring to allow monitoring of waiting area within lobby from rooms E37, and E39 thru E43 utilizing one video camera.

Provide mounting rack above ceiling to support 15 lbs PA amplifier. Coordinate rack location with speaker. Provide required conduits (with pull wires) and j-boxes for future wiring between amplifier and individual microphones in rooms E37, and E39 thru E43.

Note: If designer chooses to provide a separate waiting room then all requirements pertaining to the speaker, PA amplifier, and video camera apply to the waiting room and not the lobby.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Common

Room Name: Break / Vending

E3, G23

Relationships

Primary

Near restrooms and lobby areas.

Secondary

Near classroom areas.

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	425
No of Rooms Required:	1 ea.
Time and Days of Operation:	M – F 0800 - 1700
Existing Area	

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

One duplex receptacle per vending machine. Additional general purpose receptacles.

Communications

No requirements

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

NR

Equipment and Type

Space for 4 vending machines minimum.

Remarks

Vending machines N.I.C.

Lighting level: 30 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Telecommunications Room

E4

Relationships

Primary

N/R

Secondary

N/R

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	100
No of Rooms Required:	designer choice
Time and Days of Operation:	M – S 24 hrs.
Existing Area	

Architecture

Flooring	NR
Ceiling	ACT 2' X2'
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

See remarks

Plumbing

NR

Electrical

Three wall mounted general use duplex receptacles. Two duplex receptacles mounted on plywood backboard each with a dedicated circuit. One quadraplex receptacle mounted on each equipment rack each with a dedicated circuit.

Communications

See design and performance requirements.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

NR

Equipment and Type

See design and performance requirements.

Remarks

Lighting level: 50 footcandles

Note: This room may be combined with room L15 if maximum horizontal wiring distances aren't exceeded by doing so. .

Room temperature shall be conditioned utilizing a mechanical system that is independent of the facility's central HVAC system. A thermostat inside the room shall control the temperature.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Storage

Room Name: General Storage

E5

Relationships

Primary

Near classrooms.

Secondary

Accessible from delivery area.

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	1000
No of Rooms Required:	3
Time and Days of Operation:	M – S 24 hrs.
Existing Area	

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	No windows
Acoustics	NR

Engineering

HVAC

Plumbing

Electrical
One duplex receptacle per wall

Communications
No requirements

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Maximize storage shelving.

Equipment and Type

Remarks

Lighting level: 10 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Storage

Room Name: Training Materials Storage

E6

Relationships

Primary

Close to E5

Secondary

Close to testing area.

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	50
No of Rooms Required:	1 ea.
Time and Days of Operation:	M – S 24 hrs.
Existing Area	

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	No windows
Acoustics	NR

Engineering

HVAC	Per Code
Plumbing	Per Code
Electrical	NR
Communications	NR
Fire Alarm System	Per NFPA and ADA

Furnishings

Furniture

Maximize storage shelves

Equipment and Type

Provide slop sink

Remarks

Lighting level: 5 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Testing

Room Name: Storage / Information & Registration

E7, 8

Relationships

Primary

Near Testing E10

Secondary

Near Self Study E12

Programming

Occupants	3 persons
Room Dimensions	
Sq Ft Required:	270 (120 for storage)
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1630

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	NR
Windows	No exterior windows
Acoustics	NR

Engineering

HVAC

Plumbing

Electrical
Five wall mounted duplex receptacles minimum. Locate all receptacles in registration area.

Communications
Two dual jack outlets located in registration area.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for 3 desks & chairs, Work Table, Shelves/ Cab., Trash Can, Clock, Paper Storage, 3 File Cabinets, 6 safes (2W x 4D x 5H) one big door

Equipment and Type

Space for Copier, CPU, printers

Remarks

This is actually one room, E7 and E8 functions to be carried out in same room. Need glass panel to look into E9, E31.

Lighting level: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Testing & Observation

E9

Relationships

Primary

Near Information & Registration E8

Secondary

Near Testing Storage E7

Programming

Occupants	Up to 35 persons
Room Dimensions	
Sq Ft Required:	800
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	CPT
Ceiling	Sound rated ACT 2 x 2
Walls	Sound rated DW
Doors	NR
Windows	See remarks, no exterior windows
Acoustics	No req.

Engineering

HVAC

Plumbing

Electrical

General purpose duplex receptacles throughout the room.

Communications

One dual jack outlet at front of room.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for table for teacher, maximize desks for testers, minimum 25.

Equipment and Type

Remarks

Special observation windows to testers from reception area (E7 & E8). Sound proof if possible.

Mirrors in back corner clgs. at room, convex type.

Signage on walls

Lighting: 50 footcandles with dimmer control

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Language Lab

E12

Relationships

Primary

Near E9 & E34

Secondary

NR

Programming

Occupancy	30 students
Room Dimensions	
Sq Ft Required:	700
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Plumbing

Electrical

Minimum of two duplex receptacles for large screen TV's at front of room and general purpose duplex receptacles throughout room.

Communications

Dual jack outlet at front of room and dual jack TV outlet at front of room for satellite connections.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for storage of video/audio tapes

Equipment and Type

Space for two large screen TV's

Remarks

See design guide for layout.

Wired so instructor can listen to students. Contact Mr. Roger Skluzacek at 337-531-1537 for more information.

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ALC

Room Name: Self-Study

M5 - 7

Relationships

Primary

Next to M1

Secondary

Near M2, M3

Programming

Occupants	One person ea.
Room Dimensions	
Sq Ft Required:	67
No of Rooms Required:	3
Time and Days of Operation:	M – F 0800 - 1700
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	N/R
Windows	N/R
Acoustics	N/R

Engineering

HVAC

Per Code

Plumbing

N/R

Electrical

Duplex receptacles

Communications

One dual jack outlet and one TV jack.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for tables w/ chair or counter (built-in).

Equipment and Type

Space for VCR / TV in ea. room
Space for CPU in ea. room
Space for typewriters in one room only

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ALC

Room Name: MOS Reading Room

M3

Relationships

Primary

Next to M2

Secondary

Close to M1, M5-7

Programming

Occupants ---

Room Dimensions

Sq Ft Required: 1000

No of Rooms Required: 1

Time and Days of Operation: M – F 0800 - 1700

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	Dead Bolt Locks
Windows	Nice but not req'd
Acoustics	No req.

Engineering

HVAC

Plumbing

Electrical
Duplex receptacles. Coordinate locations with equipment layout.

Communications
Two dual jack outlets minimum. Coordinate locations with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Maximize shelving for books (access by staff only)

Adequate amount of library shelves for videos, pamphlets, CD's, books

Equipment and Type

Space for copier, microfiche, printer

Space for CPU's on ea. desk

Remarks

Need reception desk area

?? Opens into **M2**

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ALC

Room Name: Self-Paced Instruction

M2

Relationships

Primary

Next to M3

Secondary

Programming

Occupants

1 Administrator + max. # of work stations

Room Dimensions

Sq Ft Required: 300

No of Rooms Required: 1

Time and Days of Operation: M – F 0800 - 1700

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	Dead Bolt Locks, Secure Doors
Windows	Nice but not req'd
Acoustics	No req

Engineering

HVAC

To support all CPU's

Plumbing

Electrical

Duplex receptacles

Communications

Four dual jack outlets minimum.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for tables w/ work space, Chairs, Printer Desk
One Admin desk / office within space.

Equipment and Type

Space for CPU's, printers

Remarks

Lighting: 50 footcandles

* Opens into **M3**

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Classrooms

E15 –17
E19, C2-3

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupants	See remarks
Room Dimensions	
Sq Ft Required:	700
No of Rooms Required:	1 ea.
Time and Days of Operation:	M – S 0800 – 2200
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	Dead Bolt Locks
Windows	Nice but not req'd
Acoustics	NR

Engineering

HVAC NR

Plumbing NR

Electrical
Duplex receptacle above ceiling for future ceiling mounted projector. Three duplex receptacles in front of room - one near right corner (facing front of room), one, and one adjacent to TV mounting bracket.

Communications
Dual jack outlet located near corner duplex receptacle. Dual jack (one for satellite and one for CATV) TV outlet adjacent to TV mounting bracket.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Space for max. amount of desks w/ chairs
Lecture Stand
Space for 1 table / chair for instructor
Provide adequate storage closet in back of room and a small kitchenette w/ sink in each classroom.

Equipment and Type

Dry erase marker board
Large projection screen

Remarks

Lighting: 50 footcandles with dimmer control.

Provide proper structural support in ceiling for future multi media projector to be provided by others. In addition, provide all necessary conduit (with pull wire) and j-boxes to allow for future installation of wiring between projector and a CPU to be located in front right corner of room.

Provide mounting bracket on wall near ceiling to the right of projection screen to accommodate a 27 inch TV and a separate VCR.

C2-C3 classrooms need to be subdivided into 4 breakout areas each by means of flexible partitions.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Satellite Class

E18

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupants	25 students
Room Dimensions	
Sq Ft Required:	700
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1700
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	Dead Bolt Locks
Windows	Yes
Acoustics	NR

Engineering

HVAC

Plumbing

Electrical

Quadraplex receptacle centered at front of room for future 2-way conference equipment and one duplex receptacle per wall.

Communications

One dual jack outlet for 2-way conference equipment and one dual jack TV outlet for satellite connections at front of room.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for max. amount of tables, chairs
Provide adequate storage closet in back of room and a small kitchenette w/ sink in each classroom.

Equipment and Type

Space for Satellite 2-way conference equipment

Space for large monitor

Remarks

Lighting: 50 footcandles with dimmer control.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Classrooms

G25 - 28

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupants	30 students
Room Dimensions	
Sq Ft Required:	900
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 2200
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	Dead Bolt Locks
Windows	Yes
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Duplex receptacle above ceiling for future ceiling mounted projector. Three duplex receptacles in front of room - one near right corner (facing front of room), one centered, and one adjacent to TV mounting bracket.

Communications

Dual jack outlet located near corner duplex receptacle. Dual jack (one for satellite and one for CATV) TV outlet adjacent to TV mounting bracket.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for 1 table & chair for instructor
Space for 30 desks, lecture stand

Provide adequate storage closet in back of room and a small kitchenette w/ sink in each classroom.

Equipment and Type

Large projection screen
Dry erase marker board

Remarks

Lighting: 50 footcandles with dimmer control.

Provide proper structural support in ceiling for future multi media projector to be provided by others. In addition, provide all necessary conduit (with pull wire) and j-boxes to allow for future installation of wiring between projector and a CPU to be located in front corner of room.

Provide mounting bracket on wall near ceiling to the right of projection screen to accommodate a 27 inch TV and a separate VCR.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Lecture Hall

E20

Relationships

Primary

Centrally located, near lobby area

Secondary

Accessible to Library, G3

Programming

Occupants	50 persons
Room Dimensions	
Sq Ft Required:	1250
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 – 2200 (*)
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	Dead Bolt Locks
Windows	Nice but not req'd
Acoustics	No req.

Engineering

HVAC

Plumbing

Electrical

Duplex receptacle above ceiling for future ceiling mounted projector. Three duplex receptacles in front of room - one near right corner (facing front of room), one centered, and one adjacent to TV mounting bracket.

Communications

Dual jack outlet located near corner duplex receptacle. Dual jack (one for sattelite and one for CATV) TV outlet adjacent to TV mounting bracket.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for 50 desks, Lecture Stand, 1 Table / chair for instructor

Equipment and Type

Dry erase marker board

Large projection screen

Remarks

Lighting: 50 footcandles with dimmer control

Provide proper structural support in ceiling for future multi media projector to be provided by others. In addition, provide all necessary conduit (with pull wire) and j-boxes to allow for future installation of wiring between projector and a CPU to be located in front corner of room.

Provide mounting bracket on wall near ceiling to the right of projection screen to accommodate a 27 inch TV and a separate VCR.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Science Lab

E25

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupants	30 students
Room Dimensions	
Sq Ft Required:	1250
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1630

Existing Area

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Plumbing

Electrical

Duplex receptacle for instructor's CPU and general use receptacles throughout room. Also, duplex receptacle above ceiling for future ceiling mounted projector.

Communications

One dual jack outlet for instructor's CPU.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Student lab Counters w/sinks (max. amount)
Space for chem. Storage cabinet or closet.
Book Shelving

Same as E14

Equipment and Type

Space for CPU for instructor
Marker Board Screens
Projection Equipment

Remarks

Provide Safety Shower & Eye Wash

Lighting: 75 footcandles with dimmer control

Provide proper structural support in ceiling for future multi media projector to be provided by others. In addition, provide all necessary conduit (with pull wire) and j-boxes to allow for future installation of wiring between projector and instructor's CPU.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: VTC Classrooms (Video Two-way Conference)

E26, 27

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupants	30 students + 1 instructor
Room Dimensions	
Sq Ft Required:	800
No of Rooms Required:	2
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	NR
Windows	Yes
Acoustics	NR

Engineering

HVAC
Per Code

Plumbing
Per Code

Electrical
Same requirements as rooms G14-16 except 31 recessed floor boxes are required.

Communications
Same requirements as rooms G14-16 except for 30 students

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Space for tables & chairs (30 plus 1 instructor)

Equipment and Type

Space for big screen monitor, video cameras, microphones @ ea. desk.

Remarks

A path between each recessed box and VTC system is required for future installation of microphone cables.

Design will be identical to that for rooms G14-16 except for more students.

Lighting: 50 footcandles. Lighting shall be controlled by two dimmer switches (one switch for fixtures in front half of room and one for back half) and fixture layout shall be coordinated with workstation locations to minimize blooming (VTC system has a video camera that can focus on each student at each workstation).

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Culinary Arts Kitchen

E28

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupancy	25 students
Room Dimensions	
Sq Ft Required:	500
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	Tile
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Codes

Plumbing

Per Codes

Electrical

Provide required power to each piece of kitchen equipment.

Communications

Two dual jack outlets

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Cutting Tables
Tables & Chairs (4) (eat or study)

Equipment and Type

Stoves
Dishwashers
Refrigerators & Freezers
Sinks, etc.

Remarks

Same set up as commercial kitchen. All equipment indicated in “furnishings” will be included in contract.

Lighting: 70 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Computer Lab

G29 - 30
E31 - 32

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupants 20 students + one instructor

Room Dimensions

Sq Ft Required: 700

No of Rooms Required: 1 ea

Time and Days of Operation: M – S 0800 - 2200

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	NR
Windows	Yes
Acoustics	NR

Engineering

HVAC

To support CPU's

Plumbing

Electrical

21 recessed floor boxes containing a duplex receptacle and two 8-pin modular jacks for CPU's. Coordinate locations with furniture layout. In addition, one duplex receptacle per wall.

Communications

In addition to above, two dual jack outlets for printers.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for tables & chairs, instructor's table w/ chair, Locking cabinets & shelves for supply, chemical storage.

Equipment and Type

Dry erase marker board
20 CPU's for students and 1 for instructor

Space for printer, projection screen same as E14

Remarks

Lighting: 50 footcandles with dimmer control

This classroom will be used for both Biology and Chemistry classes.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ALC

Room Name: PLATO Computer Lab

M4

Relationships

Primary

In general classroom area

Secondary

Access to G3 classroom area

Programming

Occupants 20 + instructor

Room Dimensions

Sq Ft Required: 900

No of Rooms Required: 1

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	NR
Windows	Yes
Acoustics	NR

Engineering

HVAC To support CPU's

Plumbing

Electrical
21 recessed floor boxes containing a duplex receptacle and two 8-pin modular jacks for CPU's. Coordinate locations with furniture layout. In addition, one duplex receptacle per wall.

Communications
In addition to above, two dual jack outlets for printers.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Desks & chairs
Instructor's table w/ chair

Equipment and Type

Dry erase marker board

20 CPU's for students and one for instructor

Printer

Projection screen

Remarks

Lighting: 50 footcandles with dimmer control

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Staff Office

Room Name: Staff Lounge

E33, G24

Relationships

Primary

Close to restrooms, office areas

Secondary

NR

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	225 ea.
No of Rooms Required:	2
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Plumbing

Electrical

One duplex receptacle per wall minimum including one for refrigerator. One dedicated receptacle for microwave.

Communications

Two dual jack outlets

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for 2 tables, 8 chairs

Equipment and Type

Bulletin Board

Kitchen cabinet & storage w/ space for microwave.

Space for refrigerator

Remarks

Lighting: 30 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div, Language Lab

Room Name: Language Lab Office & Library

E34

Relationships

Primary

Near language Lab

Secondary

Near Instructor's Offices

Programming

Occupants 2 persons

Room Dimensions

Sq Ft Required: 450

No of Rooms Required:

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC
Per Codes

Plumbing
Per Codes

Electrical
Duplex receptacles coordinated with furniture and equipment layout.

Communications
Three dual jack outlets coordinated with furniture and equipment layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Shelves x 12
Space for 2 desks, file cabinets

Equipment and Type

Space for copier

Remarks

See DG 1110-3-112

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Language Instructor

E35, 36

Relationships

Primary

Near language Lab

Secondary

NR

Programming

Occupants 1 person

Room Dimensions

Sq Ft Required: 120

No of Rooms Required: 2

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

Per Code

Electrical

Four duplex receptacles minimum coordinated with furniture layout.

Communications

Two dual jack outlets and one TV outlet for satellite connection.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desk & chairs, file cabinets, bookcase

Equipment and Type

Space for TV

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ALC

Room Name: Office

M1

Relationships

Primary

MOS Library

Secondary

NR

Programming

Occupants 3

Room Dimensions

Sq Ft Required: 200

No of Rooms Required: 1

Time and Days of Operation: M – F 0800 - 1700

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT 2 x 2
Walls	Std
Doors	N/R
Windows	Yes
Acoustics	N/R

Engineering

HVAC

Per Code

Plumbing

N/R

Electrical

Five wall mounted duplex receptacles coordinated with furniture layout.

Communications

Four dual jack outlets. Coordinate with desk locations and fax machine location.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for 3 desks, chairs, 3 guest chairs,
6 file cabinets (6 drawer) & 1 work table

Equipment and Type

CPU at each desk
Space for fax machine

Remarks

Shared office space, one desk is reception

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Director's Office

E37

Relationships

Primary

Near E38, staff lounge

Secondary

Programming

Occupants 1 person

Room Dimensions

Sq Ft Required: 270

No of Rooms Required: 1

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

Per Code

Electrical

Five wall mounted duplex receptacles coordinated with furniture layout. Flush mounted j-boxes (2 total) with cover for future wiring for TV monitor connection to video camera in room E1 and future wiring for microphone (on desk) connection to amplifier located above ceiling in room E1.

Communications

Two dual jack outlets coordinated with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desk, round table, file cabinets (3), bookcase & credenza

Equipment and Type

TV monitor connected to video camera in lobby or waiting room (See E1).

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Administration Office

E38

Relationships

Primary

Other Ed staff

Secondary

NR

Programming

Occupants 4 person

Room Dimensions

Sq Ft Required: 600

No of Rooms Required: 1

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

Per Code

Electrical

Five wall mounted duplex receptacles minimum coordinated with furniture layout.

Communications

Four dual jack outlets coordinated with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desks, file cabinets & bookcases

Equipment and Type

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div Staff Office

Room Name: Counselors

E39 - 43

Relationships

Primary

Other Ed Staff

Secondary

NR

Programming

Occupants	1 person
Room Dimensions	
Sq Ft Required:	130 ea.
No of Rooms Required:	5
Time and Days of Operation:	
Existing Area	

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

Per Code

Electrical

Four duplex receptacles. Flush mounted j-boxes (2 total) with cover for future wiring for TV monitor connection to video camera in room E1 and future wiring for microphone (on desk) connection to amplifier located above ceiling in room E1.

Communications

Two dual jack outlets coordinated with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desk & chair, guest chairs, file cabinet & bookcase

Equipment and Type

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: 4 Colleges

Room Name: Private Offices

E44 – 47
E53 - 54

Relationships

Primary

Near classrooms

Secondary

NR

Programming

Occupants	1 to 5 persons
Room Dimensions	
Sq Ft Required:	2670 (See Remarks)
No of Rooms Required:	1 ea. w/ storage closet & 120 s.f. director's office
Time and Days of Operation:	M – F 0800 - 1700
Existing Area	

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

Per Code

Electrical

General use duplex receptacles coordinated with furniture location

Communications

Rm E44 – five dual jack outlets, Rm E45 – eight dual jack outlets, Rm E46 – six dual jack outlets, Rms E47, E53, & E54 – three dual jack outlets. These are minimum requirements. Coordinate location with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for tables, file cabinet (1 per desk), desks & chairs,
guest chairs
Storage closet w/ book shelves in each area.

Equipment and Type

Space for copier & fax machine.

Remarks

Provide separate director's private office in each area except LSU, which is itself an office.

E44 (CMU) - 500SF
E45 (CTC) - 1100SF
E46 (UIU) - 660SF
E47 (LSU) - 150SF
E53,54 (Unassigned) – 130SF ea.

Lighting : 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Restrooms

E48 - 49

Relationships

Primary

NR

Secondary

NR

Programming

Occupancy ---

Room Dimensions

Sq Ft Required: 1000

No of Rooms Required: 1 ea.

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	Tile
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

Per Code

Electrical

GFCI duplex receptacle for every two sinks (minimum of one).

Communications

No requirements.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Equipment and Type

Split 1000 s. f. for plumbing fixtures & accessories for required male & female population.

Remarks

Lighting: 20 footcandles with additional lighting over mirrors.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Mechanical

E50

Relationships

Primary

NR

Secondary

NR

Programming

Occupants ---

Room Dimensions

Sq Ft Required: 750

No of Rooms Required: 1

Time and Days of Operation: 24 hrs.

Existing Area

Architecture

Flooring	Conc.
Ceiling	NR
Walls	CMU
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC
Per Code

Plumbing
Per Code

Electrical
One duplex receptacle per wall

Communications
One single jack (voice) outlet near door mounted 1220 mm AFF. See remarks for additional info.

Fire Alarm System
Manual pull station and combination audio/visual device. Smoke detector above fire alarm panel (unless fire alarm panel is in room L18).

Per NFPA and ADA

Furnishings

Furniture

Equipment and Type

Remarks

Lighting: 15 footcandles

Provide separate electrical closet/room as required.

Provide 27 mm conduit with pull wire between data terminal cabinet (and/or master direct digital control panel) and backboard in nearest (if more than one) telecommunications room. Also provide 27 mm conduit with pull wire between data terminal cabinet (and/or master direct digital control panel) and electrical meter located on secondary side of exterior service transformer.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Ed Div

Room Name: Janitor & Supply Rm

E51 - 52

Relationships

Primary

NR

Secondary

NR

Programming

Occupants ---

Room Dimensions

Sq Ft Required: 190 (See Remarks)

No of Rooms Required: 2

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	Tile
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

Per Code

Electrical

One duplex receptacle in E50 and two in E51.

Communications

No requirements

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Equipment and Type

Provide storage shelving on both rooms.

Remarks

E50 Janitor – 70SF
E51 Supply Rm – 120SF

Lighting: 10 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: MSP Training Administration Office

G1

Relationships

Primary

Other G3 staff

Secondary

Near G3 classrooms

Programming

Occupants 3

Room Dimensions

Sq Ft Required: 390

No of Rooms Required: 1

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	NR
Ceiling	NR
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Seven duplex receptacles minimum.

Communications

Five dual jack outlets minimum coordinated with furniture layout.

Fire Alarm System

As required per NFPA and ADA

Furnishings

Furniture

Space for Desks w/ chairs, bookcases, file cabinets and typing table.

Equipment and Type

Space for computer w/ table, adding machine & typewriter.

Remarks

Lighting level: 50 footcandles

Trng Coord	120 sf
Trng Tech (2)	150 sf
File Rm	120 sf

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: Office Auto Clerk

G2

Relationships

Primary

Other G3 staff

Secondary

NR

Programming

Occupancts	1
Room Dimensions	
Sq Ft Required:	100
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Four duplex receptacles minimum

Communications

Two dual jack outlets coordinated with furniture layout

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desk w/ chair, bookcases, file cabinet.

Equipment and Type

Space for computer w/ printer, adding machine, typewriter & fax machine.

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: MOS Contractor

G3

Relationships

Primary

Near other G3 staff

Secondary

Near classrooms

Programming

Occupants	2
Room Dimensions	
Sq Ft Required:	150
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Std
Doors	NR
Windows	2 windows
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Five duplex receptacles minimum

Communications

Three dual jack outlets minimum coordinated with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for two desks w/ chairs, file cabinets (4), Bookcases & conference table.

Equipment and Type

Space for computer w/ printer, fax machine & adding machine.

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: Classrooms

G4 - 9

Relationships

Primary

In general classroom area

Secondary

Access to Ed Ctr classrooms

Programming

Occupants 30 students / 2 instructors

Room Dimensions

Sq Ft Required: 900 ea.

No of Rooms Required: 6

Time and Days of Operation: M – F 0800 - 1700

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Duplex receptacle above ceiling for future ceiling mounted projector. Three duplex receptacles in front of room - one near right corner (facing front of classroom), one centered, and one adjacent to TV mounting bracket.

Communications

Dual jack outlet located near corner duplex receptacle. Dual jack (for satellite and CATV) TV outlet adjacent to TV mounting bracket.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for 15 tables & 30 student chairs, 1 teacher desk,
2 teacher chairs, bookcases & file cabinet.

Provide small break area / in back of room w/ sink.

Equipment and Type

Space overhead projector
Dry Erase Marker Board
Projector Screen
Space for computer with printer & multi media projector.

Remarks

Storage in back of room (at least 25 s.f.).

Lighting: 50 footcandles

Provide proper structural support in ceiling for future multi media projector to be provided by others. In addition, provide all necessary conduit (with pull wire) and j-boxes to allow for future installation of wiring between projector and a CPU to be located in front corner of room.

Provide mounting bracket on wall near ceiling to the right of projection screen to accommodate a 27 inch TV and a separate VCR.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: General Storage

G10, 17

Relationships

Primary

Near G3 admin area

Secondary

Near classrooms

Programming

Occupants	0
Room Dimensions	
Sq Ft Required:	150
No of Rooms Required:	1 ea.
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	Tile
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC
NR

Plumbing
NR

Electrical
No requirements

Communications
No requirements

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Space for storage cabinets.

Equipment and Type

Remarks

Needs shelves to store textbooks, video tapes, support equipment, cleaning supplies, etc.

Shelves should be on 3 of 4 walls.

One storage for ADLP another for MilSchools.

Lighting: 10 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: ADLP File Room

G18

Relationships

Primary

Near G3 admin area

Secondary

NR

Programming

Occupants 0

Room Dimensions

Sq Ft Required: 120

No of Rooms Required: 1 ea.

Time and Days of Operation: M – F 0800 - 1630

Existing Area

Architecture

Flooring	Tile
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Duplex receptacles

Communications

Dual jack outlet coordinated with scanner and plotter locations.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for file cabinets

Equipment and Type

5’ long x 3’ deep x 3’ tall scanner

4’ long x 2’ deep x 4’ tall plotter

Remarks

Lighting: 30 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: Copy Room

G11, 19

Relationships

Primary

Near G3 admin area

Secondary

NR

Programming

Occupants	0
Room Dimensions	
Sq Ft Required:	50
No of Rooms Required:	1 ea.
Time and Days of Operation:	M – F 0800 - 1630
Existing Area	

Architecture

Flooring	Tile
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC
NR

Plumbing
NR

Electrical
Two duplex receptacles minimum

Communications
One dual jack outlet

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Equipment and Type

Space for one copier, table (30” x 72”)

Remarks

One room for ADLP, another for MilSchools.

Lighting: 20 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: ADLP Administrator

G12

Relationships

Primary

Near other G3 staff

Secondary

Near ADLP classrooms

Programming

Occupants	1
Room Dimensions	
Sq Ft Required:	120
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1700
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Three duplex receptacles minimum

Communications

Two dual jack outlets coordinated with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desk w/ chair, bookcases & file cabinets.

Equipment and Type

Space for computer w/ printer, adding machine & wide mouth scanner, plotter.

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: ADLP Assistant Office

G13

Relationships

Primary

Near G12, other G3 staff

Secondary

Near ADLP classrooms

Programming

Occupants	1
Room Dimensions	
Sq Ft Required:	100
No of Rooms Required:	1
Time and Days of Operation:	M – F 0800 - 1700
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

NR

Plumbing

NR

Electrical

Four duplex receptacles minimum

Communications

Two dual jack outlets coordinated with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desk w/ chair & file cabinets.

Equipment and Type

Space for computer w/ printer & adding machine.

Remarks

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: Distance Learning Classrooms

G14 - 16

Relationships

Primary

In general classroom area

Secondary

Access to Ed Ctr classroom area

Programming

Occupants 17 (16 students and 1 instructor)

Room Dimensions

Sq Ft Required: 700

No of Rooms Required: 3

Time and Days of Operation: M – F 0800 - 1700

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Std
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC	NR
Plumbing	NR

Electrical
17 recessed floor boxes containing a duplex receptacle, two 8-pin modular jacks, and room for microphone cable. Wall mounted quadraplex receptacle and dual 8-pin modular jack centered in front of room for user provided and installed VTEL system.

Communications
In addition to electrical above, provide two wall mounted dual jack outlets.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Equipment and Type

Space for 17 computer workstations, 1 VTEL System, fax machine, cabinets & servers.

Remarks

A path between each recessed box and VTEL system is required for future installation of microphone cables.

During design phase contractor shall visit existing ADLP classrooms on Ft. Polk to obtain all essential information for complete design requirements. Particularly spacing information for recessed boxes.

Lighting: 50 footcandles. Lighting shall be controlled by two dimmer switches (one switch for fixtures in front half of room and one for back half) and fixture layout shall be coordinated with workstation locations to minimize blooming (VTEL system has a video camera that can focus on each student at each workstation).

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: Janitor

G20

Relationships

Primary

NR

Secondary

NR

Programming

Occupants NR

Room Dimensions

Sq Ft Required: 55

No of Rooms Required: NR

Time and Days of Operation: NR

Existing Area

Architecture

Flooring ---

Ceiling ---

Walls ---

Doors ---

Windows ---

Acoustics ---

Engineering

HVAC

NR

Plumbing

NR

Electrical

One duplex receptacle

Communications

No requirements

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Provide storage shelving.

Equipment and Type

Remarks

Lighting: 10 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: ADLP / Mil Schools

Room Name: Restrooms

G21 - 22

Relationships

Primary

NR

Secondary

NR

Programming

Occupants NR

Room Dimensions

Sq Ft Required: 370

No of Rooms Required: NR

Time and Days of Operation: NR

Existing Area

Architecture

Flooring	---
Ceiling	---
Walls	---
Doors	---
Windows	---
Acoustics	---

Engineering

HVAC

NR

Plumbing

NR

Electrical

One GFCI receptacle for every two sinks (one minimum).

Communications

No requirements

Fire Alarm System

Furnishings

Furniture

Equipment and Type

Remarks

Lighting: 20 footcandles with additional lighting above mirrors.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Entrance & Lobby Area

L1

Relationships

Primary

Access to other lobby areas in Ed Ctr

Secondary

Programming

Occupants	---
Room Dimensions	10 x 16 approx.
Sq Ft Required:	150
No of Rooms Required:	NR
Time and Days of Operation:	7 days, 0800 - 2000

Existing Area

Architecture

Flooring	Tile
Ceiling	ACT
Walls	CMU
Doors	NR
Windows	NR
Acoustics	Ambient PNC 50 DB (90)

Engineering

HVAC	Per Code
Plumbing	NR

Electrical

Duplex receptacle(s). Public address speaker.

Communications

Single jack outlet for pay phone.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Display Glass Cases / Signage

Equipment and Type

Drinking Fountains

Remarks

Must be located adjacent to circulation desk area. Must be accessible to public rest rooms.

Handicapped accessible. Contains internal after hours book drop.

High traffic area.

Convenient to parking area.

Lighting: 10 footcandles. Additional lighting for display case.

Provide an after-hours book drop on outside wall.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Shipping & Receiving

L2

Relationships

Primary

Adjacent to Technical Services
& Loading Dock

Secondary

Programming

Occupants	---
Room Dimensions	15 x 20 approx.
Sq Ft Required:	250
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000

Existing Area

Architecture

Flooring	Tile
Ceiling	NR
Walls	NR
Doors	NR
Windows	NR
Acoustics	Ambient PNC 40 DB (85)

Engineering

HVAC
Per Code

Plumbing
NR

Electrical
Duplex receptacle(s)

Communications
No voice or data jack requirements.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Storage area bins and cabinets.

Shelves for sorting.

Equipment and Type

Remarks

Shipping and receiving area is required for delivery of boxes, equipment, supplies, etc. It is used for storage unpacking, and transporting items.

MAIL BAGS WEIGHING 150LBS.

LOADING DOCK REQUIREMENTS.

Provide door bell buzzer. Buzzer control shall be located on outside wall in docking area. Buzzer shall ring in Technical Services and Librarian's Office.

Lighting: 60 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Circulation Desk / Control Area

L3

Relationships

Primary

Next to lobby/entry area

Secondary

Programming

Occupants	6-person workstation
Room Dimensions	20 x 25 approx.
Sq Ft Required:	400
No of Rooms Required:	NR

Time and Days of Operation: 7 days, 0800 - 2000

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Wallboard
Doors	---
Windows	Yes, UAVB
Acoustics	PNC 35 DB (80)

Engineering

HVAC	Per Code
Plumbing	NR

Electrical

Recessed floor duplex receptacles for 6 CPU's located on circulation desk and 20 online public access catalog CPU's located throughout control area. Some of the access catalog CPU's may be powered from wall receptacles. Also, general use duplex receptacles located throughout space.

Communications

Dual jack outlet in same recessed floor box as CPU receptacles. One recessed floor TV outlet at circulation desk.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Circulation Desk
13 Single Shelving Units
15 Book Trucks
Stands for catalog CPU's

Equipment and Type

6 CPU's located on control desk

20 online public access catalog CPU's

Copier

Remarks

All customers using the library must pass through this area. Customers checking in and out materials. This is also a work area for simple repairs, processing overdue books, and receiving books that are being returned.

Provide public address system control at circulation desk.

Lighting: 60 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Staff Lounge and Kitchen

L4

Relationships

Primary

Near librarian's office

Secondary

Near Tech Services area

Programming

Occupants	---
Room Dimensions	15 x 17 approx.
Sq Ft Required:	250
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT
Walls	Brick, painted
Doors	NR
Windows	NR
Acoustics	Ambient PNC 50 DB (90)

Engineering

HVAC

Per Code

Plumbing

NR

Electrical

General purpose duplex receptacles, and receptacles for stove and vending machines.

Communications

One dual jack outlet

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for sofas, lounge chairs, chairs and tables,

Unit Kitchen

Equipment and Type

Space for Stove

Space for 2 vending machines

Remarks

Staff lounge area should be provided for breaks, eating, relaxation, and staff meetings.

A kitchenette in the lounge for preparation of heating food is desirable.

The staff lounge should be located close to the technical services, administrative and circulation desk areas.

Lighting: 60 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Librarian's Office

L5

Relationships

Primary

Near Control Area

Secondary

Near Tech Services

Programming

Occupants	3 persons
Room Dimensions	12.5 x 16 approx.
Sq Ft Required:	200
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000

Existing Area

Architecture

Flooring	CPT
Ceiling	DWB / Plaster or ACT
Walls	CMU & Paint
Doors	2 or 3
Windows	Yes, UAVB, draperies
Acoustics	Ambient PNC 50, DB (80)

Engineering

HVAC

Per Code

Plumbing

NR

Electrical

Duplex receptacles matching furniture layout plus general purpose receptacles.

Communications

Four dual jack outlets minimum. Coordinate with furniture layout. Two dual jack (for satellite and CATV) TV outlets.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for desk, chair, credenza & library shelves.

Space for Computer Furniture & Small Conference Table with 4 Chairs

Equipment and Type

Space for Computer, Telephone.

Remarks

Librarian's office required for library consultation, staff counseling, short meetings with vendors, etc. Sound isolation for confidential conversation between visitors. Adjacent to staff restrooms / or solitary restroom.

DG110-5-1110 ARMY CORPS OF ENGINEERS DESIGN ARMY LIBRARIES AR 415-20, TM 5-800.3

Provide public address system control.

Provide doorbell buzzer. Buzzer activated from loading lock.

Lighting: 60 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Stack Area

L6

Relationships

Primary

Central location, visible from control area

Secondary

Access from all reading areas

Programming

Occupants	70
Room Dimensions	
Sq Ft Required:	3,500
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	Lighting fixtures parallel to stacks for better lighting.
Walls	DW or Plaster
Doors	NR
Windows	NR
Acoustics	Ambient PNC 50 DB (90)

Engineering

HVAC	Per Code
Plumbing	NR

Electrical
Some of the floor mounted receptacles for the online public access catalog CPU's may be located in this area.

Communications
Dual jack outlets if recessed electrical outlets provided.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Shelving double faced units 11 capacity for large books, 60" wide for flat newspapers.

Space for Tables / chairs

Space for Working Desk

Equipment and Type

Possibly online public access CPU's depending on Proposer's design.

Remarks

Over 100,000 books, videos, tapes, other library materials.
Shelving is non-fiction and fiction. 42 inches wide between shelves per ADA.
Book trucks must be able to go between shelves down the aisles.

Must be visible from circulation desk. Extremely well lighted area.

Lighting: 60 footcandles. Do not locate fixtures over shelving.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Children's Room

L7

Relationships

Primary

Next to control area

Secondary

NR

Programming

Occupants	50 persons
Room Dimensions	
Sq Ft Required:	1000
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	NR
Walls	Wallboard / Plaster
Doors	NR
Windows	NR
Acoustics	Ambient PNC 40 DB (90)

Engineering

HVAC

Per Code

Plumbing

NR

Electrical

Duplex receptacles for CPU's.

Communications

Dual jack outlet for each CPU.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

30 Capacity Shelving double faced units 11 high magazines / videos

Space for Tables / Chairs for 50 children

Equipment and Type

Display Shelves by 20 x 40

5 CPU's

Remarks

Lighting: 60 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Technical Services

L8

Relationships

Primary

Next to shipping & receiving

Secondary

Near control area & librarian

Programming

Occupants	10
Room Dimensions	
Sq Ft Required:	2100
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000

Existing Area

Architecture

Flooring	CPT
Ceiling	ACT
Walls	NR
Doors	NR
Windows	NR
Acoustics	Ambient PNC 45 DB (80)

Engineering

HVAC	Per Code
Plumbing	Wash Basin

Electrical
General purpose duplex receptacles in addition to those adjacent to communication outlets.

Communications
Nine dual jack outlets. Provide five based on furniture layout and four as stated in remarks. One CATV outlet.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture
20 Book Trucks, 12 Shelves Steel double faced 5 inches, 5 work tables, 5 desks, 5 book cabinets, drafting table, supply cabinet, file cabinets

Work counter including sink.

Space for computer furniture, storage cabinets, wall storage cabinets

Equipment and Type

6 CPU's

Remarks

Technical Service is workplace of the library. Activities are ordering books, videos, etc.
Processing new materials and out going materials, physically and binding, cataloging, and computer repair. The technical services staff requires washbasins, basins.

Lighting: 60 footcandles

Four of the communications outlets shall be located in a 100 Sq Ft portion of the room designated as a LAN server area. Locate two in wall and two in floor 10 feet from wall.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Military Reading Room

L9

Relationships

Primary

NR

Secondary

NR

Programming

Occupants	15
Room Dimensions	
Sq Ft Required:	750
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT
Walls	DW or Plaster
Doors	NR
Windows	UAVB
Acoustics	Ambient 45, DB 90

Engineering

HVAC
Per Code

Plumbing
NR

Electrical
General purpose duplex receptacle(s) in addition to those located next to communication outlets.

Communications
Five dual jack outlets for CPU's.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Space for Sofa, Lounge Seating
Space for Tables, 10 shelves steel
Double wide / Single / Display Case, Magazine Shelves, Video Shelves, Computer Furniture

Equipment and Type

Space for five CPU's

Remarks

Specifically dedicated to Military Books, Periodicals, Newspapers, etc. needed for Military Research.

Military Reading Room is also used as a small museum dedicated to Ft. Polk's history.

Lighting: 75 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Periodical Room

L10

Relationships

Primary

Near control area

Secondary

NR

Programming

Occupants	30 persons
Room Dimensions	
Sq Ft Required:	600
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	NR
Walls	NR
Doors	NR
Windows	NR
Acoustics	Ambient PNC 50 DB (90)

Engineering

HVAC
Per Code

Plumbing
NR

Electrical
General purpose duplex receptacles.

Communications
No voice or data jack requirements.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Periodical Shelves
Newspaper Racks
Reader Printers
Microfilm Storage
Flat Shelves for Newspapers
Space for Sofa / Lounge Chairs, Tables

Equipment and Type

Display Shelves by 20 x 40

Remarks

Periodicals area should be visible from the circulation desk. Shelving for current issues of periodicals up to one year old. Older issues are maintained in the back issues of storage periodical area.

600 newspapers and magazines.

Lighting: 60 footcandles. Do not place lighting fixtures over shelves.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Reference Area

L11

Relationships

Primary

Near control area

Secondary

NR

Programming

Occupants	20
Room Dimensions	
Sq Ft Required:	1000
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	ACT
Walls	WB / Brick
Doors	Indoor
Windows	NR
Acoustics	Ambient PNC 40 DB (85)

Engineering

HVAC

Per Code

Plumbing

NR

Electrical

Duplex receptacles for CPU's and general purpose.

Communications

Twelve dual jack outlets for CPU's

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Shelving –15. Index table

Space for Seating tables and chairs, lounge seating, computer furniture, map case, atlas case, dictionary stand, globe stand, 12 study carrels.

Equipment and Type

12 CPU's

Remarks

Reference materials are non-circulating and are used immediately. Reference books tend to be large and heavy, therefore, tables should be 4 feet wide and 3 linear feet per person in length. Desk is needed for reference librarian. Reference room needs to be near circulation area, so that staff can help customers when librarian is not available.

Lighting: 60 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Reading / Study Areas

L12

Relationships

Primary

Accessible to/from stack areas

Secondary

Programming

Occupants	30
Room Dimensions	
Sq Ft Required:	1,500
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	NR
Walls	DW
Doors	NR
Windows	NR
Acoustics	Ambient PNC 40 DB (90)

Engineering

HVAC

Per Code

Plumbing

NR

Electrical

Recessed floor and wall duplex receptacles for CPU's. Coordinate location with furniture layout. Also, general purpose receptacles.

Communications

Ten dual jack outlets coordinated with furniture layout.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Space for 30 Rectangular Tables / Chairs, lounge seating.

15 Study Carrells, end tables, display area for books.

Equipment and Type

10 CPU's. CPU's will be on tables both against the wall and in middle of room.

Remarks

Reading area and study area needed for research, homework assignments, and casual reading.

Lighting: 75 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Storage Room

L13

Relationships

Primary

Next to Tech Services area

Secondary

Near stack areas

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	1,000
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	NR
Walls	DW or Plaster
Doors	NR
Windows	NR
Acoustics	Ambient PNC 40 DB (90)

Engineering

HVAC

Per Code

Plumbing

NR

Electrical

Three duplex receptacles minimum. Two for CPU's.

Communications

Two dual jack outlets for CPU's.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Shelving double faced units 11 capacity for large books, 60" wide for flat newspapers.

Space for maximum amount of Tables / chairs, Working Desk

Equipment and Type

Space for 2 CPU's used for inventory

Remarks

DG1110-3-110 ARMY CORPS OF ENGINEERS DESIGN FOR ARMY LIBRARIES.

Lighting: 50 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Multi-Media

L14

Relationships

Primary

Near Tech Services & Storage areas

Secondary

Programming

Occupants	22
Room Dimensions	
Sq Ft Required:	1,100
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	NR
Walls	DW
Doors	NR
Windows	NR
Acoustics	Ambient PNC 40 DB (90)

Engineering

HVAC	Per Code
Plumbing	NR

Electrical
Wall mounted and recessed floor mounted duplex receptacles as required based on furniture and equipment layout. In addition, all other power required for equipment or furniture.

Communications
Wall mounted and recessed floor mounted dual jack outlets and TV outlets as required based on furniture and equipment layout.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Space for Listening Booths (3 min.), Computer Furniture, Chairs, Shelves, Storage Closets, 3 Desks, TV Tables, and Chairs

Equipment and Type

Space for CPU's and Printers,
10 CD Players & Video / DVD
Copier

Remarks

DG 1110-3-110 DESIGN GUIDE FOR ARMY LIBRARIES

Lighting: 50 footcandles with dimming capability.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Telecommunications Closet

L15

Relationships

Primary

Near service areas

Secondary

NR

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	120
No of Rooms Required:	designer cloice
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT or Concrete
Ceiling	ACT
Walls	NR
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC
See remarks

Plumbing
NR

Electrical
Same as room E4.

Communications
Same as room E4.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Equipment and Type

Remarks

Lighting: 50 footcandles

Room temperature shall be conditioned utilizing a mechanical system that is independent of the facility's central HVAC system. A thermostat inside the room shall control the temperature.

Space may be combined with room E4 if designer chooses.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Restrooms & Lockers

L16 - 17

Relationships

Primary

Next to entry lobby

Secondary

NR

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	350
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	Tile
Ceiling	ACT
Walls	Brick, painted
Doors	NR
Windows	NR
Acoustics	Ambient PNC 35 DB (35)

Engineering

HVAC	Per Code
Plumbing	Per Code

Electrical

One GFCI receptacle for every two sinks (one minimum).

Communications

No voice or data jack requirements.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Diaper Layette
Utility Closet

Equipment and Type

Provide number of fixtures as required for population.

Remarks

HANDICAPPED ACCESSIBLE

Lighting: 20 footcandles with additional lighting over mirrors.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Mechanical

L18

Relationships

Primary

NR

Secondary

NR

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	255
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000

Existing Area

Architecture

Flooring	Concrete
Ceiling	NR
Walls	NR
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC	Per Code
Plumbing	NR

Electrical
One duplex receptacle per wall.

Communications
One voice jack near door.

Fire Alarm System
One combination audible/visual device and one manual pull station adjacent to exterior door. Fire alarm panel and transmitter.

Furnishings

Furniture

Equipment and Type

Remarks

Lighting: 15 footcandles

Provide only one fire alarm panel and one transmitter for facility. Fire alarm panel may be provided in other mechanical room if designer so chooses.

Provide a separate electrical closet/room as required.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Janitorial / Storage Supply Room

L19

Relationships

Primary

NR

Secondary

NR

Programming

Occupants ---

Room Dimensions

Sq Ft Required: 50

No of Rooms Required: 1

Time and Days of Operation: 7 days, 0800 - 2000

Existing Area

Architecture

Flooring	Concrete
Ceiling	ACT
Walls	NR
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC

Per Code

Plumbing

NR

Electrical

One duplex receptacle

Communications

No requirements including public address.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Provide storage shelving.

Equipment and Type

Remarks

For storage of cleaning supplies, and equipment of library..

Lighting: 15 footcandles

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Staff Toilet & Lockers (see remarks)

L20

Relationships

Primary

Near staff areas

Secondary

NR

Programming

Occupants ---

Room Dimensions

Sq Ft Required: 100

No of Rooms Required: 1

Time and Days of Operation: 7 days, 0800 - 2000

Existing Area

Architecture

Flooring	Tile
Ceiling	NR
Walls	NR
Doors	NR
Windows	NR
Acoustics	NR

Engineering

HVAC Per Code

Plumbing NR

Electrical

One GFCI receptacle for every sink (minimum of one)

Communications

No voice or data jack requirements.

Fire Alarm System

Per NFPA and ADA

Furnishings

Furniture

Equipment and Type

Remarks

This will be a “unisex” toilet. Provide adequate number of lockers for staff members.

Lighting: 20 footcandles with additional lighting above mirrors.

Library & Ed Cntr, Fort Polk, LA

Room Requirements

Department: Library

Room Name: Library Technicians

L21

Relationships

Primary

Adjacent to librarian's Office & Control Area

Secondary

NR

Programming

Occupants	---
Room Dimensions	
Sq Ft Required:	250
No of Rooms Required:	1
Time and Days of Operation:	7 days, 0800 - 2000
Existing Area	

Architecture

Flooring	CPT
Ceiling	DWB / Plaster or ACT
Walls	CMU & Paint
Doors	NR
Windows	NR
Acoustics	Ambient PNC 50, DB (80)

Engineering

HVAC	Per Code
Plumbing	NR

Electrical
Duplex receptacles matching furniture layout plus general purpose receptacles.

Communications
Four dual jack outlets minimum. Coordinate with furniture layout. Two dual jack (for satellite and CATV) TV outlets.

Fire Alarm System
Per NFPA and ADA

Furnishings

Furniture

Space for 2 desks, chairs, & book shelves.

Equipment and Type

Space for Typewriter, Printer, Fax Machine, Telephones, Copier, TV / Video / DVD

Remarks

Lighting: 60 footcandles

Attachment M

DoD Antiterrorism/Force Protection Minimum Standards

The following is taken from the Interim DOD Antiterrorism/Force Protection construction Standards, dated December 16, 1999 with errata and are applicable to the Library/Education Center Facility

1. **DEFINITIONS**

1.1. Terms used in this Manual are defined below:

1.1.1. Annealed Glass. The most common form of glass available. Depending on manufacturing techniques, it is also known as plate, float, or sheet glass.

1.1.2. Asset. A resource requiring protection. For this interim standard, the asset is limited to people.

1.1.3. Conventional Construction. Building construction including doors, windows, or manufacturers' components which is not designed to resist tools, weapons, or explosives but is designed to resist common environmental conditions.

1.1.4. Facility. Any single building, project, or site.

1.1.5. Glazing. Glass, plastic, or composite sheets used in windows.

1.1.6. Inhabited Structure. Structures intended to be occupied by DoD personnel with a personnel density of greater than one person per 40 square meters (430 square feet). This density generally excludes industrial and storage facilities. This does not include guard type facilities, single and duplex detached family housing. It may include portions of structures in which not all areas have such population densities.

1.1.7. Laminated Glass. Two or more individual sheets of glass bonded together by a polyvinyl butyral (PVB) plastic interlayer.

1.1.8. Minimum Standards. Protective measures to be applied to all inhabited structures or billeting or primary gathering structures regardless of the identified threat. These measures provide a degree of protection that will not preclude direct effects of blast, but will minimize collateral damage of buildings and people and will limit progressive collapse of structures. They add relatively little additional cost, and they may also facilitate future upgrades and deter acts of aggression.

1.1.9. Primary Gathering Structures. A subset of inhabited structures in which 50 or more DoD personnel routinely gather (e.g., office buildings, and indoor recreation facilities).

1.1.10. Standoff Distance. A distance maintained between a structure or inhabited portion of a structure and the potential location for an explosives detonation to reduce the explosives' blast effects on the structure. Standoff distances required vary with building component construction.

1.1.11. Troop Billeting Structure. A subset of inhabited structures in which DoD personnel are billeted, not to include military family housing.

2. DOD ANTITERRORISM/FORCE PROTECTION MINIMUM CONSTRUCTION STANDARDS.

Minimum Standards. Minimum standards apply regardless of the identified threat. Minimum standards are addressed in the following Paragraphs. Large areas of the Library/Education Center Facility will be considered a primary gathering structure. Primary gathering structures are a critical subset of inhabited structures and additional protective measures are included in these standards for primary gathering structures.

2.1. SECURITY ENGINEERING STANDARD 1: SITEWORK.

2.1.1. Facility Access.

2.1.1.1. Eliminate, minimize, or mitigate lines of approach perpendicular to inhabited structures.

2.1.1.2. Minimize vehicle access points.

2.1.2. Facility Characteristics.

2.1.2.1. Avoid conditions within 10 meters (33 feet) of inhabited structures that permit concealment of aggressors or that would obscure the view of objects or packages 150 millimeters (6 inches) in height from the view of security personnel.

2.1.3. Facility Standoff / Separation. Facility standoff distances are intended to prevent the progressive collapse of structures. For all cases below, standoff distances will be to the face of that portion of a structure that meets the criteria of an inhabited structure or a troop billeting or primary gathering structure. Portions of structures with lesser occupancies may be located within the stated standoff distances.

2.1.3.1. Locate trash containers at least 10 meters (33 feet) from inhabited structures.

2.1.3.2. Locate trash containers at least 25 meters (82 feet) from troop billeting and primary gathering structures.

2.1.3.3. Maintain a minimum building separation distance of 10 meters (33 feet) for troop billeting and primary gathering structures.

2.2. SECURITY ENGINEERING STANDARD 2: PARKING AND ROADWAYS.

2.2.1. Parking beneath inhabited structures is not allowed

2.2.2. Locate parking lots and roadways at least 10 meters (33 feet) from inhabited structures and 25 meters (82 feet) from troop billeting and primary gathering structures. The standoff distance from roadways is measured from the nearest edge of pavement. Portions of structures with lesser occupancies may be located within the stated standoff distance.

2.3. SECURITY ENGINEERING STANDARD 3: BUILDING LAYOUT.

2.3.1. Minimize or mitigate exposure of personnel in inhabited structures to potential glass fragment hazards.

2.3.2. Design circulation within inhabited structures to provide detection of people approaching controlled areas or occupied spaces.

2.3.3. When possible, position exterior doors on inhabited structures so they cannot be easily targeted from the installation perimeter or uncontrolled vantage points.

2.4. SECURITY ENGINEERING STANDARD 4: SUPERSTRUCTURE.

2.4.1. Structural.

2.4.1.1. For all inhabited structures of three stories or more, design to sustain local damage with the structural system as a whole remaining stable and not being damaged to an extent disproportionate to the original local damage. This shall be achieved through an arrangement of the structural elements that provides stability to the entire structural system by transferring loads from any locally damaged region to adjacent regions capable of resisting those loads without collapse. This shall be accomplished by providing sufficient continuity, redundancy, or energy dissipating capacity (ductility), or a combination thereof, in the members of the structure. That analysis will include removal of one primary vertical or one primary lateral load-carrying element without progressive collapse. For further guidance, refer to American Society of Civil Engineers Standard 7-98, Minimum Design Loads for Buildings and Other Structures.

2.4.1.2. For all multistory inhabited structures, design all multistory vertical load carrying elements assuming loss of lateral support at any one floor level (i.e., a laterally unsupported length equal to two stories).

2.4.1.3. Exterior masonry walls will be reinforced in all structures with a minimum of #16's at 1200 mm (#5's at 48 inches).

2.4.1.4. On multistory inhabited structures, run concrete floor slab reinforcement continuously through both faces of the slab and into the beams and columns to improve capability to withstand load reversals.

2.4.1.5. Exterior walls in inhabited structures will employ one-way wall elements spanning vertically to minimize blast loads on columns.

2.4.1.6. Structurally separate portions of inhabited structures with lesser occupancies from the inhabited portions of the structure when portions with lesser occupancies are located within prescribed standoff distances.

2.4.2. Non-structural. Attach interior ceiling mounted fixtures to the supporting structural system (i.e., use seismic detailing from Technical Instruction 809-4) in inhabited structures. This includes suspended ceilings, light fixtures, and mechanical and electrical ducting and pipes.

2.4.3. Exterior Windows. For single glazed windows in inhabited structures, use a minimum of 6 millimeters (¼-inch) annealed laminated glass. For insulated glass units, the inner pane should be a minimum of 6 millimeter (¼-inch) annealed laminated glass.

2.4.4. Exterior Doors. Use a minimum of 6 millimeter (¼-inch) annealed laminated glass for exterior door glazing in inhabited structures.

2.5. SECURITY ENGINEERING STANDARD 5: MAILROOMS.

2.5.1. Avoid routing key utilities (including communications, fire detection and alarm, water mains, etc.) through or on common walls to mailrooms in inhabited structures.

2.5.2. Locate mailrooms on perimeters of inhabited structures.

2.6. SECURITY ENGINEERING STANDARD 6: MECHANICAL AND UTILITY SYSTEMS.

2.6.1. Locate air intakes above the first story ceiling (for two-story or higher inhabited structures) or on the roof of single-story inhabited structures , and restrict access to the intakes.

2.6.2. Control access to roofs of inhabited structures. Avoid external ladder access by providing entry from internal stairways or ladders such as in mechanical rooms. Alternatively, secure external ladders.

2.6.3. Include an emergency shutoff switch in the control system that immediately shuts down the heating, ventilation, and air conditioning (HVAC) system of inhabited structures.

2.6.4. Ensure that redundant utilities in inhabited structures do not run in the same locations or chases.

2.6.5. Secure exterior access to power/heat plants, gas mains, water supplies, communications, electrical service, or other support facilities or infrastructure.

2.6.6. Construct fire protection systems in inhabited structures using seismic detailing from Technical Instruction 809-4.