

CEMP-E  Engineer Regulation 1110-345-122	Department of the Army U.S. Army Corps of Engineers Washington, DC 20314-1000	ER 1110-345-122  22 March 1999
	Engineering and Design  INTERIOR DESIGN	
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CEMP-E

Regulation  
No. 1110-345-122

22 March 1999

## Engineering and Design INTERIOR DESIGN

**1. Purpose.** This regulation establishes policy, requirements, and responsibilities to be followed in the planning, design, approval, and procurement of interior designs for construction and improvement projects.

**2. Applicability.** This regulation applies to HQUSACE/OCE elements, major subordinate commands (MSC), district commands and centers, laboratories, and field operating activities (FOA) having military design and/or construction responsibilities.

**3. References.** References and additional information resources are listed at Appendix A. Government Sources of Supply and the requirements for their utilization are indicated at Appendix B.

**4. Distribution.** This regulation is approved for public release; distribution is unlimited.

**5. Projects Requiring Interior Design.** Interior design is required on new building construction and renovation projects regardless of funding source. Interior design guidance is provided by Design Guide (DG) 1110-3-122. Interior design guidance for medical facilities is furnished Military Handbook 1191, Medical Military Construction Program Facilities Design and Construction Criteria. Interior design for family housing will be in accordance with Technical Instruction (TI) 801-02, Family Housing.

**6. Interior Design Services.** Two types of interior design services are offered.

**a. Building-Related Interior Design.** Building-related interior design service will be provided for all facilities. This service requires the accommodation of needed furniture and equipment within the building, and the design or selection of items normally provided as part of the building construction project in accordance with AR 415-15. These services will be provided as an integral part of the project design and shall include:

(1) Basic space planning for anticipated furniture and equipment requirements in conjunction with the functional layout of the building and design issues such as life safety, privacy, lighting, ventilation, and accessibility.

(2) Design, selection, and coordination of finish materials and colors that are applied to or compose walls, floors, ceilings, trims, doors, windows, window treatments, built-in furniture and installed building equipment, lighting, signage and other items which are permanently attached to, or are integral to the building. Coordination among interior finish materials and the materials composing the building envelope and site furnishings is also required.

**b. Furniture-Related Interior Design.** Furniture-related interior design should be provided for facilities where the arrangement of furniture and furnishings is important to building functionality. Furniture-related interior design services relate to the accommodation and selection of furniture and furnishing items needed to provide a facility that is ready for the user's operations. This service will be provided when requested by the using activity and will normally include:

(1) Selection, and color coordination of furniture and equipment drawn from existing inventory, procured from Government Sources of Supply (see Appendix B), or procured by competitive bid. These items normally include such things as furniture, pre-wired workstations, furniture systems, seating, freestanding and mobile furniture, draperies, lamps, rugs, art, and accessories.

(2) Detailed space design, placement planning, and procurement documentation for the selected furniture, furnishings, and equipment.

(3) Coordination of furniture-related items with the building design.

**c. Comprehensive Interior Design.** Comprehensive Interior Design (CID) is a term developed for Air Force construction which means the design of all interior furniture and furnishings and the finishes related to them. CID is comparable to performing both building-related and furniture-related interior design in Army projects. For Air Force interior design criteria see <http://www.brooks.af.mil/DCFORM.HTM>.

## **7. Interior Design Products.**

**a. Building-Related Interior Design.** Building-related interior design products include the following:

(1) Preparation of the basic space layout plans for furniture and equipment, in coordination with the functional layout of the building design.

(2) Specification of the material and color applications for interior component surfaces, and preparation of color and finish schedules.

(3) Design and specification of permanent features such as signage, graphics, casework, and built-in equipment; and the preparation of appropriate schedules.

(4) Coordination of finishes, interior components, lighting, acoustical treatment, electrical, information systems, and mechanical elements with the design of the building envelope.

(5) Preparation of color boards and review binders showing layout diagrams, special details, and material and color samples, for the purpose of obtaining approval of the design scheme and for facilitating the execution of the design intent through the construction contract or other procurement.

(6) Description of interior design intentions for enhancement of energy efficiency, safety, health, functional flexibility, maintenance, increased personnel performance, and projecting the proper image.

**b. Furniture-Related Interior Design.** General requirements for furniture-related interior design are:

(1) Coordination with the tasks identified in paragraph 7a above, so that the furniture-related and

building-related design schemes reflect a single, coordinated design.

(2) Selection and description of furniture and equipment to meet the customer's functional, maintenance, and aesthetic requirements. Selection will be based on the factors indicated in DG 1110-3-122. Selections will be made from Government sources whenever possible. FAR, Part 8 defines the precedence utilizing the Government Sources of Supply listed in Appendix B. When Government source items do not meet requirements, purchase specifications to include materials testing and/or rating requirements to meet minimum Federal standards, and any other data necessary for procurement on the open market will be provided.

(3) Preparation of detailed furniture arrangement and placement plans, and coordination with architectural, electrical, information systems, and mechanical elements.

(4) Preparation of procurement documents with source data, item identification, color and finish samples, and cost estimates. Documents will reflect current source data for procurement.

(5) Preparation of color boards and review binders showing layout diagrams, selected furniture and equipment, material and color samples. Perspectives or sketches may also be necessary to obtaining approval of the design scheme.

(6) Technical consultation during procurement, delivery, and placement, to assure receipt of specified and selected items, and completion and coordination of the overall design scheme.

**8. Design Process.** Preparation of project interior designs will coincide with the project design process described in AR 415-15. Interior design drawings and analysis will be prepared as part of the project design analysis required by ER 1110-345-700.

**a. Concept Design.** During the concept design phase, those responsible for interior design will meet with representatives of the using activity and the building design team to determine the design concept. The design concept should meet the user's functional, physical, and aesthetic needs as defined below.

(1) Functional. Achieve space planning layout

which considers all furniture and equipment required to support the users operation. Related design issues include accessibility, privacy, safety, health, and maintainability.

**(2) Physical.** Assure that environmental support systems such as electrical, lighting, mechanical, information systems, and structure meet the users physical requirements.

**(3) Aesthetic.** Meet the users needs for aesthetic expression. Aesthetic needs are the physical interpretations of the users sociological and psychological needs. Design issues related to these needs include the use of light, color, and texture.

**b. Final Design.** Upon approval of the concept design, those responsible for design will develop the design concept in sufficient detail to assure successful execution. Building-related interior design is the detailed design and specification of building-related elements in the contract documents. Furniture-related interior design includes the detailed design and preparation of procurement documents.

## **9. Responsibilities.**

### **a. Planning Phase.**

**(1)** The using activity and installation will:

**(a)** Provide Operations and Maintenance (O&M) funds for procurement of furniture and equipment, and indicate these funds on DD Form 1391, as required by AR 415-15.

**(b)** Provide design and design review funds for furniture-related design, as indicated in paragraph 11 of this regulation.

**(c)** Identify unique functional requirements related to the interior design of the facility.

**(d)** Identify existing furniture and equipment to be reused in addition to new furniture and equipment required.

**(2)** USACE MSC and district commands responsible for design will assist, on a reimbursable basis, in determining preliminary design requirements, indicated in paragraphs 9a(1)(c) and (d) above, during development of the planning and programming

documents. At USACE certification, MSC and district commands will assure that adequate design funds have been programmed to support interior design services and the related furniture procurement.

### **b. Design Phase.**

**(1)** The designated representative of the using activity, having final approval authority for the project will review and approve interior design in a manner that is compatible with the provisions of AR 415-15.

**(2)** USACE MSC and district commands will:

**(a)** Accomplish interior design services within the scope and methods described herein, and as stated in the programming documents and design directives.

**(b)** Assure that interior design services are coordinated with the building design and reflect the requirements of the using activity.

**(c)** Verify and validate the technical adequacy and professional quality of the interior design.

### **c. Construction and Procurement Phases.**

**(1)** The using activity and installation have the following responsibilities regarding interior design:

**(a)** Procurement of furniture and equipment for delivery to coincide as closely as possible with beneficial occupancy of the building.

**(b)** Tracking of procurement to assure timely receipt of required furniture and equipment.

**(c)** Warehousing of furniture and equipment until it is required for placement in the building.

**(d)** Delivery, assembly, and installation of furniture and furnishings at the project site.

**(e)** Verification that furniture and equipment received meet the project requirements defined by procurement documents, shop drawings, and/or specifications.

**(f)** Establishment of a move in date for the user. This date must be coordinated with the USACE MSC or district command to assure adequate time to furnish and move into the facility after it is released for beneficial

occupancy.

(2) USACE MSC and district commands have the following responsibilities:

(a) Assure that appropriate information is provided to the using activity to fully describe the interior design intentions, and the maintenance and operational aspects of the building.

(b) Establish beneficial occupancy date so that procurement of furniture and equipment by the using activity or by USACE may be scheduled for a timely delivery.

(3) When USACE provides furniture-related interior design services, the using activity or installation may request the following services from USACE on a reimbursable basis:

(a) Technical consultation during procurement, delivery and placement of furniture and equipment.

(b) Assistance in evaluating deviations from specified furniture and equipment to avoid installation of inferior or inappropriate furniture and equipment.

(c) Services in support of the using activities responsibilities indicated in paragraphs 9c(1) above including supervision of furniture assembly and placement.

**10. Methods of Accomplishment.** Design and design review shall be accomplished by, or in consultation with, professional interior designers and architects with significant interior design experience. Qualification of designers will be based on completion of a recognized program of academic training in interior design and demonstrated interior design experience. When furniture-related services are provided as integral to building design, those services should be accomplished by the same designer providing the building-related

services. Methods for accomplishment of interior design may include in-house capability, Architect Engineer (A-E) contract, separate interior design service contract, or indefinite delivery contract for interior design services.

## **11. Funding.**

**a. Construction.** Funding for the construction or renovation of a building may come from a broad range of sources. The most common sources in military programs are Military Construction, Army (MCA), Military Construction, Air Force (MCAF), Military Construction, Army Reserve (MCAR), and Operations and Maintenance (O&M) funds.


**b. Furniture and Furnishings.** Furniture and furnishings as defined in AR 415-15, Appendix H, are normally provided using O&M funds.

**c. Design Funds.** Design funds are associated with the type of funding for construction. When construction is MCA, MCAR, or MCAF funded, planning and design funds are used for building-related interior design. O&M funds are normally used for furniture-related interior design. When the using activity identifies funds for the procurement of the furniture on the DD Form 1391 (O&M) and requests furniture-related interior design or comprehensive interior design in the description of construction (Section 3) USACE will provide this service from planning and design funds. When furniture-related interior design is not included in the programming documents, design and review effort will be provided from using activity O&M funds. For projects whose construction is funded from O&M funds, the using activity will provide funds for design and design review from this source.

**d. Procurement and Installation of Furniture and Furnishings.** Funds to support the procurement, tracking, shipping, warehousing, installation, and associated services will be provided by the using activity from the same source as the funds for the furniture, normally O&M funds.

**FOR THE COMMANDER:**

2 Appendices  
APP A - References  
APP B - Government Sources of Supply

  
**ALBERT J. GENETTI, JR.**  
Major General, USA  
Chief of Staff

## APPENDIX A

### REFERENCES

1. **Federal Acquisition Regulations (FAR)**. The Federal Acquisition Regulations are available at (<http://www.arnet.gov/far>). .
2. **Department of Defense**. Military Handbook 1191, Medical Military Construction Program Facilities Design and Construction Criteria.
3. **Department of the Army**. AR 415-15, Military Construction, Army (MCA) Program Development.
4. **U.S. Army Corps Of Engineers**. Criteria is available on TECHINFO, <http://w2.hnd.usace.army.mil/techinfo/>.
  - a. ER 1110-345-700, Engineering and Design, Design Analyses, Drawings and Specifications.
  - b. DG 1110-3-122, Design Guide for Interiors.
  - c. Technical Instructions, TI 800-01, Design Criteria.
  - d. Technical Instructions, TI 801-02, Family Housing.

## APPENDIX B

### GOVERNMENT SOURCES OF SUPPLY

**1. Priority of Sources.** FAR, Part 8.001, indicates priorities for use of Government supply sources. FAR, Part 8.6, defines requirements for Acquisition from Federal Prison Industries, Inc.

**2. Federal Prison Industries (FPI).** FAR, Part 8.6 defines FPI as a mandatory source of supply and discusses requirements for ordering and clearances. The FPI web site <http://www.unicor.gov> provides the Schedule of Products, catalog information, and procedures for obtaining service and waivers. Facilitating business processes with FPI is critical to the successful acquisition of furniture, pre-wired workstations, furniture systems, and furnishings. Requests for service or waivers should be negotiated as early as possible during design. This acquisition decision should be resolved prior to starting final design.

**3. General Services Administration (GSA).** The use of Federal Supply Schedules is optional for Department of Defense agencies. GSA schedules do, however, provide a wide selection of furniture and furnishing products along with product descriptions, pricing, and ordering procedures. GSA Federal Supply Service source information is available the GSA web site <http://www.nfc.fss.gsa.gov>. In addition, information is available from FSS Schedule Information Center (FMI), Washington, DC 20406, (703) 305-6477. GSA Central Mailing List Service is available at 4900 Hemphill Street, P.O. Box 6477, Fort Worth, TX 76115, (817) 334-5215.