SECTION 3-11: FEASIBILITY AND OTHER FACILITIES STUDIES

3-11-00 POLICY

The purpose of this section is to provide both general and specific information on requirements for facility studies to agency staff responsible for preparing or managing such studies.

This section includes guidance and requirements on all technical facility studies normally performed by OPDIVs. Generally, the studies described in this section are contracted for with private architectural/engineering (A/E) or other technical consulting firms. Alternatively, the OPDIV or other Federal personnel may perform them. When an OPDIV component does not conduct an in-house study and turns to another Federal component for the service, an interagency agreement is executed. The OPDIV remains responsible for the adequacy of all documents.

3-11-20 GUIDANCE AND INFORMATION

A. GENERAL GUIDANCE FOR FACILITY STUDIES

The following general study outline is provided as an option for studies where a format for preparing a work plan is not otherwise specified. At a minimum, facility studies address program, budget, and environmental requirements. This applies to all types of feasibility and special studies, and is oriented to studies conducted by consultants.

1. Content
    a. Statement of the Problem. What is/are the question(s) to be answered by this study?
    b. Background. The background and reasons for the study should be developed in sufficient detail to justify its need.
    c. Methodology and approach to the study
    d. Observations and Findings (including presentation of data)
    e. Conclusions and Recommendations

B. EXAMPLES OF FACILITY STUDIES

1. FEASIBILITY STUDIES

The feasibility study is the most fundamental of facilities studies and addresses program, engineering, architectural, environmental, and budget issues. It is most frequently undertaken as part of a decision process comparing different solutions to satisfying a facility requirement, such as modernizing and/or expanding an existing facility versus constructing a replacement facility, or to establish the appropriate size and scope of a planned new facility. Such feasibility studies are frequently made in conjunction with preparation of a Program of Requirements (POR) document.

a. The scope and parameters for a feasibility study must be stated in objective terms so that the A/E or consultant firm can produce an unbiased report.

b. If the issues are basically technical, requiring A/E disciplines, the A/E selection process described in Volume I, Section 4-2, "Architect/Engineer Selection Process and Approvals," must be followed after the scope is approved.

c. The recommendations of feasibility studies will be recorded in the Facility Survey Data Base. Each recommendation will be classified and prioritized in the Facility Survey Data Base.

2. PRE-DESIGN AND PRE-TRANSFER STUDIES

Pre-design and pre-transfer studies are undertaken when insufficient information is available to proceed.

a. Utility Studies - Adequate utility support is essential. Such needs are particularly complex for hospitals and research facilities. Such studies require detailed information on utility availability, capacity, reliability, projected life, etc. Studies may be devised to cover all relevant utilities or specified ones; e.g., steam or water supply only. Studies should address the special needs related to the management of medical and/or hazardous waste.

b. Physical Plant Audits or Existing Condition Survey - Physical Plant Audits or Existing Condition Survey is complete inventories of the physical plant with all deficiencies identified with a general plan of correction and estimated construction cost as well as disclose hazardous materials activities.

3. SUBSURFACE AND SOIL STUDIES

The studies listed below may be part of the site selection study. The complexity or individual nature of the site may require a special study or studies.

a. Soil Investigation and Structural Report - Certain sites may contain unusual soil materials or formations that require special consideration (e.g. expandable clays, water table problems or unstable organic fill). The report should be prepared by a soils testing laboratory and reviewed by a licensed geotechnical engineer registered in the state or territory of the site.

b. Seismic/Geologic Study - These studies are required for all sites in high risk seismic areas. Other sites may logically require special geologic studies; e.g. where rock or ledge is visible within or near the area to be developed.

4. BUILDING SYSTEMS STUDIES

Complexity in building systems often requires that individual systems be isolated and analyzed in order to develop the most effective and efficient application.

a. Energy Conservation - The high-energy usage in hospitals and laboratories has prompted these studies. Mechanical and electrical systems are the prime focus. For instance, lighting may be reduced at certain hours and electric motors may be interlocked to reduce demand.

b. Pollution Prevention - This includes both physical systems and management programs to prevent or minimize pollution, including recycling programs.

c. Other Building Systems - Many other building systems may benefit from special studies. Some common subjects are as follows:

(1) HVAC System and Controls

(2) Accessibility for Persons with Disabilities

(3) Vertical Transportation Elevators and Escalators

(4) Security

(5) Maintenance of Building Equipment

(6) Fire Safety System

5. OTHER STUDIES

HHS facilities may require specific studies as listed but not limited to those below.

a. Research Animal Holding Studies - Research animals require sophisticated environments that differ significantly from typical human environments. Use of hazardous chemicals in animal research requires careful monitoring, from delivery to final disposal of wastes. Facilities for animal studies must consider the animal species, population, research protocol, material handling, cage washing and disposal methods. A special study may be appropriate to answer facility questions in one or several of these animal research areas (e.g., Does the facility meet American Association for Accreditation of Laboratory Animal Care (AAALAC) standards?)

b. Hospital Department Studies - As a result of disease incidence or population changes, certain departments may require space adjustments after a hospital has been in operation for several years. Efficient use of space may be improved by departmental studies. Such studies should address environmental issues, such as the management of hazardous or medical wastes.

c. Technology Improvements - New equipment and technology may permit facilities to be operated more efficiently, or in a more environmentally benign manner (e.g., an improved medical waste incinerator). Specific studies are frequently necessary to plan such advancements.

d. Transportation Studies - Special studies may be necessary to integrate the HHS facility into a community transportation plan. In addition, on-site traffic patterns of vehicles and materials may be of a complex nature requiring in-depth analysis of alternatives.

e. Food Service - Food service functions of inpatient care complexes frequently warrant basic review when the cooking and serving equipment needs replacement. A study may identify more efficient methods of receiving, storing, preparing, and serving food.

f. Laundry - Hospital requirements for laundry are demanding, complex and expensive. Studies are performed to develop more efficient laundry facilities and to determine cost effectiveness of private contracting for hospital linens, etc.