CHAPTER 8. FACILITY LIFE-CYCLE MANAGEMENT

8-1. PURPOSE

This chapter of the 2005 SB 8-75-11 prescribes OTSG/USAMEDCOM requirements for managing facilities at the medical treatment center or activity level.

8-2. SCOPE

This chapter describes the roles and responsibilities of the facility manager at the installation level. It describes the functions associated with operating, maintaining, repairing, and constructing USAMEDCOM facilities. It is developed as a life cycle (cradle-to-grave) standard for facility management.

a. Facility Life Cycle Management (FLCM). FLCM is the process of economically managing facility operations, maintenance, repair, and alterations from the time a facility is constructed until it is demolished, in order to maximize productive use of the facility and realize a positive economic return on investment. The execution of FLCM requires that all statutory and headquarters-based financial thresholds be adhered to. Thresholds annotated in this document can change so it is incumbent upon the facility manager to verify the threshold before proceeding with any repair or construction activity.

b. Investment Strategy. A sound investment and management strategy is essential in the effective allocation of limited financial and personnel resources, and the successful implementation of a facility management program. In order to gage the success of the program and ultimately the mission of USAMEDCOM as a world-class health care organization, components of the program must be evaluated against performance indicators that reflect the best in private and governmental health care facility management. This document is the basis for a facility management performance plan.

8-3. APPLICABILITY

This document applies to all MEDCENS, MEDDACs, Health Clinics, and all facility management activities within USAMEDCOM MSCs. These include RMCs, AMEDD Center and School, U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), U.S. Army Dental Command (DENCOM), U.S. Army Medical Research and Material Command (MRMC), the U.S. Army Veterinary Command (VETCOM), and the Armed Forces Institute of Pathology. It is not limited to only those facilities managed through the Office of the Assistant Secretary of Defense for Health Affairs (ASD/HA) Defense Health Program.

8-4. FACILITIES STRATEGY, VISION, MISSION, OBJECTIVES

a. Facilities Strategy. USAMEDCOM facilities strategy is to:

(1) Acquire, locate, size and configure facilities to meet the USAMEDCOM mission and patient demands (the right facilities).

(2) Acquire and maintain facilities that provide a quality environment of care (the right quality). The facilities strategy focuses on sustainment and modernization of facilities, available funding on the right projects, integration and prioritization of maintenance and repair, military construction resources, and establishment of a clear and stable facility

investment environment. Key elements of the Facility Strategy include the assessment of existing facilities, the projection of mission and workload demands, and the needs of local commanders. The assessment of USAMEDCOM facilities is based on a consistent application of the Facility Condition Index (FCI). The projection of mission and workload demands is based upon workload analysis and/or the health care requirements analysis of patient demand.

b. Vision. The vision of the USAMEDCOM facilities is one of having safe and reliable facilities available when and where needed with capabilities necessary to effectively support OTSG/USAMEDCOM missions.

c. Mission. The mission of the USAMEDCOM facilities is to provide, operate and maintain in a cost effective manner the facilities necessary to support OTSG/USAMEDCOM – in both war and peace.

d. Supporting Objectives

(1) Required Capabilities. Facilities are structured to provide the right capabilities. Capabilities address such issues as seeking to provide facilities that are correctly sized to meet the mission and workload demands. The overall inventory of USAMEDCOM facilities will be monitored to insure that it is composed of the correct type of facilities and in the correct numbers to meet mission demands. The facilities will be configured to support the mission (specialty vice primary care clinics, outpatient facilities vice inpatient and appropriate type of laboratory facility). The facilities will be located where they are needed and can best serve the beneficiary population.

(2) Required Conditions. Facilities are maintained and operated to provide the right conditions. Conditions address the state of the facilities that exist. Facilities will be in compliance with regulatory standards (JCAHO, American Association for Accreditation of Laboratory Animal Care (AAALAC), etc.), and be safe and reliable. Facilities will also provide quality-working conditions for USAMEDCOM personnel. Facilities management staffs will take actions to assure that the property assets are protected from deterioration, thus providing USAMEDCOM personnel with platforms for effective and efficient operations.

(3) Appropriate Level of Resources. Resources address the funding necessary to acquire, sustain, restore, and modernize both the facilities and the support elements necessary to manage and safely operate USAMEDCOM's facilities.

(4) Information Management and Information Technology Systems IM/ITS Capabilities. IM/ITS are leveraged to support facility operations. Information addresses the data necessary for management of the facilities, reporting the progress of the strategic plan, the condition of the inventory and the justification for resources.

8-5. FACILITY LIFE-CYCLE INVESTMENT PROGRAM ELEMENTS

a. General. The facility investment program is defined in accordance with current Department of Defense program elements of Sustainment, Restoration, and Modernization (SRM), and includes medical military construction.

b. **SRM**. SRM program elements must be prioritized to ensure maximum effective use of available resources. They are prioritized as follows:

(1) Sustainment. Refer to the DoD Unit Cost Factor Handbook for a complete definition of sustainment. Sustainment is the process of planning, programming, and executing those programs necessary to maintain the infrastructure of a facility from the time it is constructed until retirement. Within this context, sustainment can be viewed as a cyclic process from which financial and personnel resources are used to provide reliable

systems and an aesthetically sound, safe, and functional environment. Sustainment involves the cycle of on-going routine repair and maintenance and also encompasses scheduled major repairs of the facility.

(a) Scheduled and Unscheduled Maintenance. Scheduled maintenance (often termed preventive maintenance) is given the highest funding priority, since it significantly improves reliability of systems and components and diminishes the risk of unscheduled outages impacting patient care. Preventive maintenance is the baseline for supporting continuity of healthcare operations. Unscheduled maintenance is sometimes referred too as demand maintenance or corrective maintenance.

(b) Scheduled Major Repairs. The next priority is given to scheduled major repair. Deterioration, caused by many factors including operational usage and environmental conditions, will eventually diminish system performance below a required level. Equipment and major systems must be repaired by major overhaul or replaced.

(2) Restoration. Refer to the DoD Unit Cost factor handbook for a complete definition of restoration. Restoration includes repair and replacement work to restore damaged facilities due to accident or failure attributable to inadequate sustainment, excessive age, or other causes. This element holds a priority level below sustainment provided sustainment is being performed. Facilities that are not maintained experience accelerated deterioration, in much the same manner as an automobile whose oil has never been changed. In addition to lack of maintenance, manufacturer's flaws, poor installation, and adverse environmental conditions can cause equipment breakdown before normal life expectancy. A standardized facility assessment is required to manage restoration.

(3) Modernization. Refer to the DoD Unit Cost Factor Handbook for a complete definition of modernization. Modernization includes alteration of facilities to implement a new, higher standard (including regulatory changes), to accommodate new functions, or to replace building components that typically last more than 50 years (such as foundations and structural components). Requirements for modernization of healthcare facilities have changed significantly as population demographics have shifted and the mission of the Army Medical Department has changed. Funds for modernization can be operations and maintenance-based or military construction-based depending on the statutory requirements imposed on these programs. Under any funding scenario, modernization is a capital investment that is managed as a long-term requirement. A master plan is required to mange modernization.

c. Capital Investments

(1) Service Life. For use at the programmatic level, the life expectancy of healthcare facilities has been established at an average service life. Referencing the 2001 publication by Whitestone Research, "Building Maintenance and Repair Costs", repairs for major components are required in typical hospitals between 20 to 30 years (average 25 years). Integrating projects consisting of both major repairs and modernization during this period can be a very effective cost avoidance technique. Often, without proper planning and requirements integration, upgrades to the infrastructure do not interface with space changes required for modernization.

(2) Plant Replacement Value (PRV). The investment strategy can be easily condensed and restated in terms of PRV. PRV provides a means of recognizing widely varying facility conditions with the goal of an annually adjusted process that calculates rate of investment over a period of time. PRV can be adjusted to account for size of facility, relative location, makeup and complexity of infrastructure, contingencies for support facilities, fixed equipment, engineering and architectural cost, and economic conditions, such as inflation. It represents the sum of costs, by facility type and location, to replace the

inventory in kind. The PRV is also adjusted as facilities close or new facilities come online. The method used in the calculation of PRV is:

PRV = Facility Quantity x Cost Factor x Area Cost Factor x 1.2

Facility quantity (gross square feet for buildings) is based on building inventory recorded in IFS at the installation. Construction cost factors are listed in the latest version of the DoD Facilities Cost Factors Handbook. Area cost factors, published annually by the Tri-service Committee on Cost Engineering, are a geographic location adjustment factor for costs of labor, material, and equipment. The 1.2 multiplier accounts for supervision, inspection, overhead, and design associated with new construction.

d. Master Planning

(1) General. Ideally, master plans are performed every five years. The purpose of the Master Plan is to assess health, dental, veterinary and medical research laboratory facilities, identify current and future facility needs, and recommend strategies for facility development needed to accommodate anticipated growth and/or change in the facility and/or its mission. The Master Plan will provide a guideline to assist the facility in identifying proactive solutions to changing mission requirements. The benefit of the master planning process is that it allows senior leadership an orderly transition plan from current facilities to a future health care delivery environment based on predicted resource needs. This insures that future changes or renovation projects are not only considered individually but for how they affect the facility as a whole. This process also enables the organization to match missions with facility capabilities. In addition, a pro-active department-level facility Master Plan, which is developed in accordance with the specific medical/dental activity Business Plan, the Multi Service Market, RMC and TriCare Regional Office (TRO) Business Plans, is required to guide the Facility Manager and the Health Facility Planning Agency (HFPA) so that needed facility repairs, upgrades, modifications, restoration, modernization or replacement projects are planned and executed based upon a comprehensive Master Plan. Projects that are properly planned, phased, funded, and prioritized, in accordance with the supporting business plan, and hence the Master Plan, will provide cost effective and efficient facility solutions to the USAMEDCOM Facility Life Cycle Management program.

(2) Description. The effort contained in the scope of work will provide the subject facility and USAMEDCOM/HFPA with a Master Plan for department-level space planning correlated with health care analysis and planning. The end result will include a list of prioritized project technical solutions to identified facility and operational space deficiencies with a phased plan of correction, and other required deliverables. These solutions and corresponding quantifiable support will follow the methodology listed below to ensure compatibility with other USAMEDCOM/HFPA master planning products. The Master Planning Scope of Work will outline the process and products required for the Master Planning effort and outlines details, timelines, delivery schedule, required analysis or services and any deliverables associated with those tasks. Requirements for the Scope of Work are detailed below.

(3) Process

(a) Project Initiation. This includes a briefing to the Commander, or his representative, on project goals, assumptions, process and schedule. Coordination prior to the initial briefing may be required with the organization. The Contractor will be required to coordinate with regional and corporate management to obtain, evaluate and validate site specific data such as facility assessments, Statements of Condition, business plans, raw data (population workload, staffing) and other information deemed necessary. At the completion of the site visit, the contractor will be required to submit an in progress review or summary report. Specific site visits will be coordinated directly with HFPA and the local leadership. HFPA will normally attend all site visits and a mutually agreed upon calendar will be coordinated in advance. The contractor shall be required to complete the number of

site visits required to develop the identified site-specific deliverables. An estimate of site visit requirements will be agreed upon. The contractor will also determine what team components are required to attend particular site visits. The following will be the typical number of general tasks and site visits:
Data collection.
25%: Project Kickoff Meeting and Health Planning Review.
50%: Staffing, Program for Design (PFD), scenarios and concept design options.
90%: Final Planning review with test & fit options and draft phasing approach.

(b) Health Care/Business Analysis. Contractor will use retrospective and prospective data analysis to identify trends. Different alternatives will be developed based on alternative futures identified by the organization.

(c) Data Collection. Contractor will collect and analyze any workload, staffing, and customer base information to help validate any previous business planning efforts. This includes, but is not limited to, validation of the mission statement, business plans, beneficiary population data (MCFAS, user MCFAS and user CHCS), workload data (MEPRS/CHCS), and staffing (TDA or contracted staff).

(d) Demand Analysis. Contractor will develop a demand analysis based on population served, enrollment (into TRICARE Health, TRICARE Dental Plan, and other enrollment programs). Based on this analysis, contractor will develop utilization trends.

(e) Planning Scenarios. Contractor will develop provider and staffing requirements, volume thresholds/optimization, and functional alignment options. These options will be based on the various futures identified by the organization.

(f) Space Requirements Forecast. Based on the scenarios and requirements listed above, contractor will develop PFDs. These PFDs will demonstrate the space required to meet the planning scenarios and demand analysis.

(4) Site/Facility Analysis:

(a) Data Collection – Facilities. Contractor will collect all existing space utilization plans, architectural Computer-Aided Drafting and Design (CADD) or hard copy drawings, site drawings, list of current projects and any facility assessments or deficiency tabulations. This information will be integrated into the facility planning scenarios

(b) Facility Planning Scenarios. Based on the Health Care/Business Operations Analysis and the Site/Facility Analysis, the contractor will conduct a functional facility analysis resulting in alternative architectural solutions. Facility planning will be summarized in both narrative and graphic representations. All graphics will be submitted in CADD (single-line architectural only) and color coded, based on the following categories: inpatient, outpatient, ancillary, administrative, and support.

(c) Existing conditions. The current space utilization and departmental boundaries of the existing structures will be documented in existing condition Computer-Aided Design/Drawing (CAD).

(d) Master plan concept. Departmental function alignment options (big-block design) will be developed in narrative and CAD format and will be based on the projected PFD and future health care scenarios. These drawings will be submitted in the interim and final deliverables, but will also be used as a tool by the contractor to facilitate alternative development with the MTF leadership.

(e) Plans of correction. Final master plan concept and test-fit design will be developed as the culmination of health care analysis, site/facility assessment and facility planning. The plans of correction will be a comprehensive use/reuse plan for the organization's total infrastructure requirement (all buildings identified in the project specific requirements). The plan will account for facility opportunities and constraints and solutions will comply with all applicable standards and health care codes to include the following: life safety; ADA (Americans with Disabilities Act); JCAHO; NFPA; OSHA; AAALAC; Council of

American Pathologists (CAP); and American Institute of Architects (AIA). Test-fit design will be developed for specific projects that are identified as the organization's priority. These projects will be categorized based on the Levels of Facility Alteration outlined in MIL-HDBK-1191, Section 1, General Guidance. The purpose of the test-fit design includes the following: graphic presentation of how specific functions fit into identified space; precursor to full design or work plan development; and to provide detailed information for cost estimate development.

(f) Implementation Plan and Cost Estimates. Based on the agreed upon alternatives, the contractor will develop a sequenced phasing of projects based on funding opportunities and constraints. The implementation plan will detail how an organization can execute the moves, upgrade, renovation and/or replacement objectives outlined in the plans of correction. Phasing and order of projects will be aligned in tracks based on their interdependency. Phases are intended to reflect functional, engineering and transitional requirements. Project descriptions will contain general scope and cost estimates will be sensitive to the integrated engineering and architectural findings but will also consider different funding options (i.e. Operations & Maintenance (O&M) funds, Host Nation, MILCON and alternative timelines particular to the military.

(5) Final Reports. The contractor shall document the results of all analysis, planning, recommendations, and discussion with regard to the specified deliverables in a final report. A separate executive summary shall also be submitted. The narrative will be directly keyed to supporting graphics and photography. The contractor shall also provide supporting digital photographs and graphics including CD-ROMs with CADD drawings.

(a) General. In addition to the contracting officer's requirements, there shall be one combined final report and executive summary for each of the following. Copies of the Reports will be called out in the Project Specific Scope and provided to the following:

- Subject Facility/Organization
- RMC (if subject facility/ organization are a sub-unit of an RMC).
- U.S. Army Health Facility Planning Agency, Falls Church, VA.
- U.S. Army USAMEDCOM, Assistant Chief of Staff for Installations, Environment and Facility Management (ACSIE&FM), Fort Sam Houston, San Antonio, Texas

(b) Format. The final report as well as all other deliverables will be provided in an INTEGRATED electronic format (word processing, spreadsheets, databases and computer-aided design). Electronic format should allow users to manipulate files with existing software (Acrobat, MS Office, AutoCAD, etc.). Format should also be easily converted to html for posting to HFPA web site. Besides electronic versions, all deliverables should be printed in 8 1/2" x 11" loose leaf or A-4 notebook. Final report will include as a minimum the following sections:

(c) Executive Summary. The contractor shall prepare an Executive Summary that includes the following sections: Scope and Methodology (summary of deliverables, schedule and team composition); Site/Facility Analysis (infrastructure requirements, FCI for each building and FCI summary); Health Care Planning (summary of population, workload, health care scenarios and recommendations); Health Facility Planning (summary of projects, costs estimates and phasing). The purpose of executive summary is to summarize all major findings and recommendations concisely.

(d) Health Care Planning, Analysis and Recommendations. The methodology, health care/business planning issues, analysis, operational issues, population & enrollment, reorganization plans (product line development) and future staffing approaches will be addressed. The PFD(s) will be included as an Appendix.

(e) Facility Analysis and Problem Definition. Costs for building deficiencies corrections and improvements and their impact on future capital investment costs are

included. Architectural analysis to include existing space, existing condition drawings and narrative summaries will be included.

(f) Master Plans Concepts and Alternatives. Master Plan Concepts and Alternatives and architectural and engineering alternatives are based on the future of the organization. Various plans will be categorized under each of these alternatives. The following will be included: Existing and programmed square footage matrix; site concept; architectural concept; engineering concept; and the master plan concept (integration/ culmination).

(g) Final Facility Recommendations. The following will be summarized in narrative and graphic formats: Final Master Plan Concept (from among alternatives investigated); Project Recommendations (based on final concept design); Plans of Correction (single line test and fit project recommendations); Cost Estimates (matrix with individual project costs and total costs); Timeliness and Phasing (graphic representation of how the organization can implement the master plan concept and plans of correction).

(h) Appendix. The following will be included as Appendixes: Methodology (detailed narrative summarizing the total endeavor), PFD, Departmental Analysis (includes existing and alternatives investigated, all tools developed to obtain buy-in on the master plan concept will be included), Background (historic information related to the installation, geographic and region will be included).

8-6. ORGANIZATIONAL ALIGNMENT

a. General. The organizations primarily involved in the administration of facility life-cycle management within the U.S. Army Medical Command are:

(1) Facility management component and/or logistics division at the activity level;
(2) Facility Director and/or logistics division at the RMC/MSC;
(3) Health Facility Planning Agency (HFPA); and
(4) Office of the ACSIE&FM at USAMEDCOM Headquarters.

b. ACSIE&FM. The ACSIE&FM is the principal staff officer to the USAMEDCOM Commanding General and the Army Surgeon General. ACSIE&FM is the proponent for USAMEDCOM installation management. ACSIE&FM interfaces with Army planners, obtains and distributes resources, conveys facility program guidance, policies and priorities, assesses and evaluates facility programs, and takes action to optimize facility investments.

c. U.S. Army Health Facility Planning Agency (USAHFPA). HFPA directly supports ACSIE&FM, the activities, and RMC/MSC in planning, healthcare construction standards and technology, construction facilitation, and project integration of large capital investment projects. HFPA administers the Medical Military Construction program.

d. Regional Medical Commands/Major Subordinate Commands. RMCs/MSCs are both tactical and operational in mission. Tactical functions have a planning horizon of one to two years. RMCs/MSCs are focused on integration of health care and facility planning and compliance with USAMEDCOM policies and procedures. HFPA directly supports RMC/MSC facility sustainment programs. RMC/MSC facility directors have functions delegated to them by ACSIE&FM. RMC/MSC facility management functions cover the following areas:

(1) Facility assessment and oversight
(2) Major repair and Restoration, Modernization program
(3) Medical Military Construction Program
(4) Technical assistance
(5) Facility management program execution

e. Facility Management Staffing and Organization:

(1) General. Each MTF, MEDCEN, and research facility shall establish and staff a facility management section proportional to their respective facility. It is required that the section be either a branch established in the logistics division under the C, Logistics, or organized as a division under Deputy Chief of Administration.

(2) Facility Management Branch. The Facility Management Branch (FMB) performs functions associated with operating, maintaining, and repairing medical and research facilities. In addition to these core functions, a FMB may also perform a wide range of additional responsibilities to include administration of housekeeping, safety, physical security, transportation, medical equipment programs, etc. This document will not address the staffing or organizational requirements for these additional responsibilities. The organizational elements of a facility management branch can be divided into the following:
Management/Administrative
Engineering/Technical Support
Operations and Maintenance (O&M)
Contract Administration/Quality Assurance

(3) Management and Administrative Functions. The management/ administrative element coordinate the planning, organizing, staffing, directing, and control of all facilities support. This element consists of a Chief, Facility Management Branch, and a clerk/typist. Functions for this activity include:

(a) Coordination of planning, organizing, staffing, directing, and controlling facility activities
(b) Serving on key committees and boards
(c) Administrative approval of projects and programs
(d) Oversight of financial programs and budgets
(e) Insuring that facilities meet all applicable requirements for accreditation
(f) Establishing and maintaining liaison with the U.S. Army Installation Director of Public Works (DPW)
(g) Personnel administration and training

(4) Engineering and Technical Support. The engineering/technical support element provides design and engineering services, programming of major construction, space utilization/space management, and technical support. This element usually consists of an engineer, preferably with electrical or mechanical background, and an engineering technician. The Chief, FMB, may assume the responsibilities of this organizational element. Functions for this activity include:

(a) Manage, track, and monitor engineering work requests, execution, closeout, and warranty issues
(b) Energy management and conservation, and monitoring and control systems
(c) Implementation of Automated Data Processing support systems for maintenance, financial, and project management
(d) Consulting engineering studies and services
(e) Facility master planning
(f) Planning and estimating work
(g) Management of all major repairs: A portion of sustainment and restoration and modernization projects
(h) Space utilization/space management
(i) Project scope development and design
(j) Coordination on the design and execution of Military Construction, Army (MCA) projects
(k) Management of facility as-built plans

(5) Operations and Maintenance Function. The operations and maintenance support element manages maintenance and repair to buildings and structures, and supply and storage of tools and spare parts. This administrative portion of this element typically consists of an engineer with experience in facility maintenance, and an engineering support clerk who is responsible for maintaining job order logs, data entry into DMLSS-FM, maintenance of a facility library, and general clerk/typist. The wage grade element varies widely depending on whether maintenance is performed in-house or under contract. As a minimum, it is recommended that a small team of maintenance workers be assigned directly to the FMB to handle minor maintenance and repairs. Functions for this activity include:

(a) Operation and maintenance of utility plants and systems

(b) Storage and maintenance of spare parts, materials, and supplies

(c) Maintain an up-to-date equipment inventory

(d) Coordination of work planning and programming activities

(e) Cyclical inspections to systematically identify maintenance and repair requirements

(f) Maintain all critical system records, test reports, and emergency procedure plans

(g) Develop and maintain a maintenance program

(h) Coordinate maintenance-training activities

(i) Maintain a library of (or insure access to) all applicable regulations, codes, and standards as needed to comply with applicable sections of this document.

(6) Contract Administration Function. The contract administration/ quality assurance element manages contract activities associated with facilities maintenance and engineering, financial planning, programming, budgeting, execution, accounting, and review. This element typically consists of a contract specialist or resource management analyst, and a facility Quality Assurance Evaluator who is usually an engineering technician with experience in facility maintenance. The Chief, FMB, may assume the contractual and financial duties. Functions for this activity include:

(a) Management of applicable sections of Inter-Service Support Agreements (ISSA) and Memorandum of Agreement (MOA) with support agencies, such as DPW.

(b) Financial oversight of reimbursable accounts.

(c) Administration of contracts within delegated authorities, including conduct of quality assurance, surveillance/evaluation of contractor performance.

(d) Prepare reports required by higher headquarters.

(7) Job Qualifications and Descriptions. Facility Manager qualifications should be one of the following:

(a) Be a registered professional engineer or licensed architect with experience in facility engineering and maintenance in healthcare or research facilities, as applicable. Strong electrical or mechanical background is preferred. The FM must have an in-depth knowledge of and basic experience in facility engineering and maintenance with emphasis on the unique nature and requirements of complex healthcare and research institutions. The FM must possess strong managerial and personnel skills.

(b) Have an advanced degree in business management with experience in facility engineering and maintenance in healthcare or research facilities, as applicable. The FM must have an in-depth knowledge of and basic experience in facility engineering and maintenance with emphasis on the unique nature and requirements of complex healthcare and research institutions. The FM must possess strong managerial and personnel skills.

(c) Have equivalent experience with at least two years experience in facility engineering and maintenance in healthcare or research facilities, as applicable. The FM must possess strong managerial and personnel skills.

(8) Staffing Guidelines.

(a) Actual staffing requirements fluctuate based on the needs of the facility, and depend largely on the extent that maintenance is outsourced or contracted out. USAMEDCOM Logistics ACSLOG is implementing a template that will be used by the manpower community to identify requirements. However, the following data listed below will generate the necessary detail to further strengthen any requirements that are not identified in the template.

(b) Staffing requirements for O&M type work can be accurately based on calculations related to Preventive Maintenance (PM) effort. The number of support personnel (non-O&M) is often based on the number of O&M personnel. Staffing for trade supervisors are based on the total number of tradesman that are required. Once staffing requirements have been determined, they can be benchmarked against industry wide standards. See applicable sections of this document.

(c) To determine staffing requirements, an availability factor must be derived. The availability factor is used to determine the actual man-hours that can be applied to O&M work once training, sick leave, vacation time, holidays, and discretionary time is accounted for.

(d) Non-O&M staffing requirements can be based on roughly 15% of total PM requirements. Staffing organizational arrangements will vary widely depending on the specific needs of the activity.

8-7. FACILITY OPERATIONS AND MAINTENANCE ACTIVITIES

a. General. Operations and maintenance is the cycle of on-going, routine repair, alteration, maintenance and operation of the facility. Operating and maintaining health care and research facilities and associated common use areas is the responsibility of the facility manager.

b. Reliability Centered Maintenance. Reliability Centered Maintenance (RCM) is the integration of reactive maintenance (run-to-failure or breakdown maintenance), and proactive maintenance, such as preventive (interval based) maintenance and Predictive Testing and Inspection (PT&I), also known as predictive maintenance or condition based maintenance. RCM applies these three techniques in combination where each is most appropriate based upon the consequences of equipment failure and its impact upon organization mission, safety, environment, and Life Cycle Cost. This combination produces the required reliability at the minimum maintenance cost. RCM requires that maintenance decisions be based on maintenance requirements supported by sound technical and economic justification.

c. Preventive Maintenance (PM). PM consists of regularly scheduled inspection, adjustments, cleaning, lubrication, parts replacement, calibration, and repair of components and equipment. PM is also referred to as time-driven or interval-based maintenance. PM schedules periodic inspection and maintenance at pre-defined intervals (time, operating hours, or cycles) in an attempt to reduce equipment failures for susceptible equipment. It assumes that these variables can be determined statistically, and therefore one can replace a part due for failure before it fails. The availability of statistical failure information tends to lead to fixed schedules for the overhaul of equipment or the replacement of parts subject to wear. PM is based on the assumption that the overhaul of machinery by disassembly and replacement of worn parts restores the machine to a like-new condition with no harmful effects.

(1) A routine maintenance plan is required on all major and critical equipment, major systems, and components. The plan shall provide procedures with detailed maintenance tasks and associated frequencies. It shall also include a master schedule indicating when maintenance tasks should be performed, so that work is spread evenly throughout the year.

(2) Detailed PM procedures should include the time standard for each procedure (O&M manuals, manufacturer's data, etc.), assignment of crafts or shops to each PM procedure, assignment of tools and materials to each PM procedure, and special notes and warnings.

d. Predictive Testing and Inspection (PT&I), also known as predictive maintenance or condition monitoring, uses primarily non-intrusive testing techniques, visual inspection, and performance data to assess machinery condition. It can complement maintenance tasks with maintenance that is scheduled only when warranted by equipment condition. Continuing analysis of equipment condition-monitoring data allows planning and scheduling of maintenance or repairs in advance of catastrophic and functional failure. The PT&I data collected is used in one of following ways to determine the condition of the equipment and identify the precursors of failure. PT&I does not lend itself to all types of equipment or possible failure modes and therefore should not be the sole type of maintenance practiced. The methods of analysis include:

- Trend analysis
- Pattern recognition
- Data comparison
- Tests against limits and ranges
- Correlation of multiple technologies
- Statistical process analysis

e. Records and Documentation. The facility manager shall be responsible for maintaining the following maintenance records and documentation. This does not preclude any additional documentation required for regulatory compliance or higher headquarters requirements.

(1) Utility connection/Cutoff plans: Provide site and floor plans that indicate the main interior and exterior connection and cutoff points of all utilities. Plans shall contain enough information to enable someone unfamiliar with the facility to locate the connection/cutoff points. The plans shall indicate the room number, panel number, circuit breaker, valve number, etc., of each connection/cutoff point; as well as which system, portion of system, or area that connection/cutoff point controls. These plans are physically distinct from site and floor plans discussed above.

(2) Warranty information: List each piece of equipment furnished by the construction contract and provide a cross reference to the written warranties. The equipment list shall indicate the duration of the warranty, start and end date of warranty, and point of contact for fulfillment of the warranty. Also list all maintenance required by the government to keep the warranty valid.

(3) Equipment inventory: Provide major and critical equipment, major systems, and component inventory in hierarchical format.

(4) Training requirements: Provide a list of recommended training related to operation and maintenance of each installed system including training which is available from the manufacturer or other source.

(5) As-Built Drawing List: Provide a list of up-to-date as-built drawings. Include drawing number and title, and indicate where the drawings and specifications are physically located.

(6) System description: Provide a detailed description of system composition and operation. Descriptive matter and theory shall include technical details that are essential for understanding the system.

(7) Start-up and shutdown procedures: Provide step-by-step instructions to bring systems from static to operational status and from operating to shutdown status.

(8) Normal operating instructions: Provide discussion of the normal operation and control of the system. Include operating norms i.e., temperatures, pressures, and flow rates expected to each zone and phase of the system. The information shall be supplemented with control/wiring diagrams and data.

(9) System flow diagrams: Provide flow diagrams indicating system liquid, air or gas flow during normal operations.

(10) Emergency operating procedures: Provide emergency procedures for equipment malfunctions and shutdown instructions for fire, explosion, spills, or any other contingency.

(11) Environmental considerations: Provide a listing of systems/equipment which requires special environmental consideration, reporting, testing, analysis, or inspection to comply with Federal and related state/local environmental laws. Examples are backflow-preventer inspections, underground storage tank testing, etc.

(12) Safety instructions: Provide a list of all personnel hazards and equipment safety precautions including recommended safeguards.

(13) Provide a list of all major valves associated the system including valve type, number, function, and location.

f. IM/IT Systems

(1) Computer Aided Design (CAD). It is required that CAD systems, or other automated techniques, be employed to maintain as-built drawings, and other records and documentation.

(2) Computerized Maintenance Management Systems. It is the objective of USAMEDCOM to employ DMLSS-FM in all facilities. Typically, the Computerized Maintenance Management Systems (CMMS) provides for storage and tracking of work orders, routine maintenance, labor information, inventory, and equipment information. This section provides guidelines to assist facility managers in determining the division of work between in-house personnel and contractors. Implementation of DMLSS-FM at a medical or research facility will result in a number of benefits which include reduced equipment downtime, better organization and access of information for accreditation inspections, such as JCAHO, CAP, and AAALAC, improved inventory management, increased labor efficiency, identification of chronic equipment malfunctions, centralized maintenance data, extended equipment life, and reduced maintenance costs.

(a) Requirements of DMLSS-FM can be subdivided into those necessary to support accreditation inspections, those required specifically at Army facilities, and those related to data reliability, security, user interface, and information transferal and exchange.

(b) Proper organization of utility systems data and reporting methodology are essential in supporting documentation for accreditation. Below is a list of reports that DMLSS-FM should include to meet this need:

- Report listing all components and characteristics of utility systems.
- Report detailing all work orders performed on critical systems, such as the emergency power system.
- Work order summary report that includes description of problems, responses and associated response dates, and the name of the individual responding.
- Report demonstrating trends of equipment failures, and how these failures are addressed.
- Report summarizing the total work order history for the preventive maintenance program.

(c) Successful implementation of DMLSS-FM is to a large extent determined by the following factors:

- Accurate and up-to-date data collection on equipment, spare parts/materials, vendors, contractors, and personnel.
- On-site training of users and managers. A minimum of 24 hours of input training and 16 hours of output training should be provided.
- System commissioning under operating conditions by creating sample work orders, printing sample reports, etc. The software vendor should provide at least 40 hours of system commissioning.

(3) Nurse Call Systems. Many hospitals need to update or replace their antiquated systems. The ACSIE&FM and the Deputy Chief of Staff for Logistics have entered into a joint venture focusing on updating this critical communication system. Facility Managers and Chiefs, Property Management Branches should determine if their system needs updating or replacing. Such factors as reliability, maintainability, and technical obsolescence, should be considered. The nursing staff is a vital source of information on how the system meets their needs. Departments of Nursing may volunteer to assign a nurse project officer to evaluate the existing system and to recommend upgrades or replacements.

(a) Nurse Call System Classification. Nurse call systems are personal property (fixed). See *AR 735-5*. The nurse call system is not considered as installed building equipment (DA Pam 420-11).

(b) Funding. Nurse call systems must be purchased using Other Procurement Defense (OPD) funding under the MEDCASE program. Minor construction or repair funding cannot be used to purchase new, replace, or upgrade nurse call systems. The MEDCASE program pays for all equipment and installation costs. The ACSIE&FM site preparation program pays for site preparation and utility rough-in requirement.

g. Maintenance Contracts. Maintenance contracts are essential elements of a well-rounded facility management program. In most cases, the complexity of modern building equipment makes it unfeasible for maintenance personnel to handle all aspects of building maintenance. Many types of equipment require maintenance to be performed by specially trained personnel. Maintenance contracts can be administered as individual service contracts, comprehensive facility wide contracts, post wide contracts, and regional wide contracts. Typically, facility, post and regional wide maintenance contracts include routine and unscheduled maintenance, with provisions for repairs, and minor construction.

(1) Contract Type: It is the responsibility of the FM to support and provide input into an analysis to determine the most cost effective type of contract to be used. Ultimately, the cost of the contract must be within the funding level provided by higher headquarters.

(2) Major Repairs/Minor Construction (MR/MC): Provisions for minor construction and major repairs can be included as part of a facility maintenance contract. The level of participation by the maintenance contractor in MR/MC should be evaluated in terms of the capability of the FM to perform MR/MC through Job Order Contracting, DPW, and other locally available contract acquisition sources.

(3) Division of Work: Maintenance work is divided into levels depending on the response time and work priority. Work that is not classified as routine preventive maintenance is considered demand maintenance. Each work order is assigned a priority to distinguish the most urgent response requirements from those that require less immediate response. The work order priorities are assigned on the basis of a particular piece of equipment. Each major and critical equipment item, and major system, or major system

components will have a response priority assigned to it. The priority categories are as follows:

(a) Priority 1, EMERGENCY: This is work that is required to correct an emergency condition detrimental to the facility mission or that endangers the health and welfare of the staff and patient and reduces the operational effectiveness. Corrective action for emergency work should start immediately and continue until completed.

(b) Priority 2, URGENT: This is work to correct an unsafe condition that is not an immediate hazard to personnel, but must be initiated within the shift and completed within 5 working days.

(c) Priority 3, ROUTINE: This is work to improve the operation of the facility that can be completed within 30 working days.

(d) Priority 4, SCHEDULED: This is work that is not one of the above and can be accomplished within 120 days.

h. Utility Management

(1) Central Plant Operation. Utility management is the management of utilities (electrical, water, natural gas, etc.) necessary to maintain continuous operation of equipment and systems in a facility. It is the responsibility of the facility manager to ensure the operation, maintenance, repair, and improvement of utility plants and systems, including water supply, electrical, heating and ventilation, refrigeration, fuel dispensing, and air conditioning systems is performed in accordance with applicable regulatory and policy guidance.

(2) Operator Training. It is the responsibility of the facility manager to maintain a current list of required operator training.

(3) Permits. The facility manager shall be responsible for maintaining a consolidated list of operator permits in accordance with current statutory and regulatory requirements.

(4) Plant Management Systems. It is the responsibility of the facility manager to operate and maintain plant management systems in an efficient and cost effective manner.

i. Energy Management

(1) General. It is the responsibility of the facility manager to administer an energy management program for their respective facilities. Facility managers shall maintain an up-to-date monthly log of all utility metered readings. Reference the DoD Energy Managers Handbook. The Energy Policy Act of 1992, Executive Order 12902, and Executive Order 12123 established the DoD mandate of ultimately reducing facility energy consumption 35% by 2010, compared to 1985 baseline levels. The National Energy Conservation Policy Act of 2005 later superseded Executive Order 12123, to mandate the present goal of a 20% reduction from 2006 to 2015, compared to the 2003 baseline.
These federal mandates also authorized alternative funding methods to finance costs associated with achieving the specified reductions.

(2) Energy Conservation Investment Program (ECIP). ECIP is a DoD military construction funded program for projects over $750,000 for improving the energy efficiency of existing Army facilities or constructing new, high efficiency energy systems. ECIP projects do not compete for resources with MCA or OMA requirements. DAIM-FDF-UE conducts an annual call for ECIP project submissions in the spring of each year. DD 1391s for ECIP candidate projects should be sent to the command headquarters by 31 July of each year, so they can be forwarded for consideration for the second following fiscal year (e.g. FY09 submissions must be submitted to MEDCOM in July, 2007). Information in the DD1391 must include the cover sheet and a current well-supported economic analysis summary sheet. All appropriate savings from energy efficiency demand reduction, water conservation, reduced maintenance or manpower requirements, and utility rebates should be included.

(3) The Energy Savings Performance Contract (ESPC). The long term use of energy savings and performance contracts in USAMEDCOM is authorized, when administered in accordance with DA guidelines. The Energy Policy Act of 1992 authorized private sector funding to accomplish energy saving retrofits in Army facilities. The ESPC is a contracting methodology in which a private contractor, called an Energy Services Company performs services such as facility energy audits, installation, operation and maintenance of equipment, technical services, and similar work in "partnership" with the Army. ESPCs generally function as Indefinite Delivery/Indefinite Quantity contracts in which the contractor identifies energy improvements, performs the work at a fixed price, and secures financing to pay for the improvements. The Army then repays this loan from the realized energy savings. ESPC can be used for any work that results in a simple payback of 10 years or less. The actual loan term can extend up to 25 years.

j. Space Management and Utilization

(1) General. Space management is the process of identifying and projecting space requirements, identifying deficiencies, allocating available space to users in an equitable way, monitoring use, assisting users with space usage problems, and resolving space problems. Space management also addresses quality of space. Space management functions in USAMEDCOM facilities may or may not be a direct responsibility of the facility manager. However, the facility manager is responsible for reducing the cost of maintenance, repair, and operation of facilities through better space utilization and conservation, and avoiding unnecessary new construction projects. Space management ensures each user is assigned the appropriate space. When an activity obtains excess space, waste of scarce and expensive resources occurs due to under utilization. Conversely, over utilization occurs when an organization occupies less space than actually authorized. The costs of incorrect utilization may be additional utilities and maintenance funds and potentially degraded performance of a unit that could be occupying more productive space.

(2) Goal and Objectives. The space management goal of the AMEDD is straightforward and tasks commanders to use facilities in the most effective way for cost and mission accomplishment. Space is a resource that requires management. Failing to manage this resource can result in a loss of productivity and scarce funds. In support of the space management goal, the AMEDD has adopted the following objectives.

(a) Use existing facilities, property, and space in an efficient manner.

(b) Reduce the need to construct or otherwise acquire facilities by using existing facilities.

(c) Determine any shortfalls or excesses of assigned facilities and space consistent with activity mission.

(d) Eliminate uneconomical, high maintenance facilities.

(e) Take action to deal with shortfalls or excesses.

(f) Eliminate off-post leasing.

(g) Dispose of land, facilities, or space that is excess to our needs.

(3) Process. The process to conduct space management includes:

(a) Establishing a space utilization inventory by department or activity.

(b) Calculating space requirements by department or activity using projected workload.

(c) Identifying space allocation deficiencies and excesses by department or activity.

(d) Developing and evaluating space management options.

(e) Implementing space management decisions.

(f) Establishing a space utilization committee that is chartered to manage all space utilization issues.

k. Integrated Modular Medical Support System (IMMSS)

(1) General. The intent of IMMSS is to provide a quality interior furnishings system for USAMEDCOM facilities worldwide. IMMSS is a demountable and relocatable furniture, furnishings and equipment system composed of components, including but not limited to panels, rails and vertical and horizontal wall supports, work surfaces, storage units and electrical and plumbing hardware, that is panel/rail/wall support connected and supported to provide work stations and combined to meet various functional requirements of the facility. These products enable facilities to avoid product obsolescence due to changes of operation, equipment and personnel needs. IMMSS respects this intent and provides maximum product integration and flexibility to accommodate changing medical technology and functional requirements. The products are durable, flexible, safe, have a professional appearance and are functional within the healthcare setting. IMMSS coordinates and complements the building design and other furnishing items within a facility.

(2) Product capability. A wide selection of components is provided to meet clinical, administrative, pharmaceutical and lab system, nurse station and material handling requirements. Products are modular and capable of being relocated anywhere within the facility. Components are designed to accommodate material movement in areas of large material flow. The complete line of products benefits the entire facility from multi-occupancy admin offices to clinical need areas. IMMSS provides the ability to relocate workstation components from one location to another as functions change. There are four advantages of this contract that will complement construction and renovation projects. This contract is especially beneficial when used in conjunction with a USAMEDCOM renewal project or a restoration, modernization project. A one time Federal Prison Industries waiver/exception is required. (Note: The waiver requirement is frequently reviewed and the process can change. Contact HFPA for current guidance). Various support services include:

- Design Services
- Restorative Services
- Inventory services
- Reconfiguration services
- Panel fabric replacement services
- Clinical and functional analysis services
- Trade-in services
- Transportation Services
- Warehousing Services
- Extended Installation

(3) Property Designation. Equipment provided under IMMSS is considered “personal property” not “real property” in accordance with *AR 735-5*. This means activities are required to use their core budget CEEP funds. Some exceptions may apply, (in some cases, IMMSS product may be procured with Initial Outfitting funds or transition funds when purchased under a MILCON or Capital Investment project). Under certain circumstances, extended installation resulting in modifications to the facility (real property) may be funded by alternate sources. However, IMMSS is predominantly personal property and considered equipment and paid for by the activity. Facility Managers will not normally use their "K" dollars provided by USAMEDCOM to purchase IMMSS. There are some exceptions regarding the extended installation portion of the work if the extended installation repairs or alters real property and existing real property installed building equipment. Please contact HFPA if you have questions.

l. Building Inventory Management

(1) Conversions and Diversions. The DPW has the primary responsibility for management, acquisition, and disposal of real estate (DA Pamphlet 420-9). Conversions

and diversions are spelled out in *AR 405-70*, paragraph 3-6. A conversion is a permanent change to a facility's design Category Codes (CATCODE). A diversion is a temporary change to a facility's current use CATCODE. Real property requirements for demolition and disposal are covered in *AR 405-90*. These actions are the responsibility of the real property specialist in the DPW. Conversions and diversions of facilities are defined in *AR 405-70*. Conversion and diversion of MTF require approval of the USAMEDCOM.

(a) *AR 405-70*, paragraph 6-3.d. (10) states: "Diversion or conversion of facilities initially constructed or subsequently converted to a Medical Treatment Facility will not be converted or diverted without approval of the USAMEDCOM for United States based facilities, or the appropriate medical command if OCONUS. See *AR 40-2*, paragraph 1-10."

(b) *AR 40-2*, paragraph 1-10.b states: "Buildings initially constructed or subsequently converted to house MTF or AMEDD personnel will not be altered, modified, or diverted from their original use without prior authority of the USAMEDCOM. Authority for conversion without provision for reclaim in the event of a requirement will be granted by USAMEDCOM where no present or future medical requirement exists. Approval of the USAMEDCOM will also be obtained prior to making any major changes in the functional arrangement or layout of any part or portion of an MTF. MTF include hospitals, troop clinics, laboratories, dental and other clinics, and quarters specifically constructed for AMEDD personnel, including civilian personnel."

(c) USAMEDCOM or MSC approval of a major repair or minor construction project constitutes approval of a major change in the functional arrangement or layout of an MTF. Based on *AR 405-70*, paragraph 3-6.e, and *AR 40-2*, paragraph 1-10.b, requests for conversion require the following items:

- Facility number
- Existing design use CATCODE
- Proposed design use CATCODE
- Justification
- Date of proposed conversion
- Signature of the installation commander
- Approval from installation medical commander
- Statement that the Integrated Facilities System Mini/Micro (IFS-M) and real property records will reflect the diversion

(d) Or the following three items:

- An unexecuted, but completed, DA Form 337
- Signature of the installation commander
- Approval from installation medical commander

(2) Category Codes. CATCODE identify the facility class and the facility category group. CATCODE for various types of facilities can be referenced in *AR 40-2*.

(3) Demolition. The DPW real property specialist must get predisposal clearances for all hospital and medical facilities before they finalized the disposal and demolition of the MTF buildings. *AR 405-90*, paragraph 6-4.d. states: "The USAMEDCOM must concur in the disposal of hospitals and medical facilities under its control (See *AR 40-2*). Disposal of such facilities not under the USAMEDCOM must have prior approval of the appropriate MACOM." Based on *AR 405-90*, paragraph 6-4.d., and *AR 40-2*, paragraph 1-10.b, requests for predisposal clearance of a MTF must include the following:

- Name of installation
- Facility number and installation number
- Gross square feet and UM2 of the facility
- Facility type (permanent, semi-permanent, & temporary)
- Design use and current use CATCODE
- Original cost and year built

- Justification
- Statement of how long the facility has been vacant
- Date of proposed disposal
- Signature of the installation commander
- Approval from installation medical commander

(4) Integrated Facilities System Mini/Micro (IFS-M). All buildings, including medical, are reported in the installation's IFS-M by the DPW Real Property specialist. Information in the IFS-M database includes size, age, available utilities, building materials, user, original cost, and capitalized improvements. Every quarter, the DPW real property records are downloaded to the Center for Public Works, at Ft. Belvoir, where all of the Army's real property records are kept on a system called Headquarters Integrated Facilities System (HQIFS). The Pentagon and Department of Army staff has access to the real property records through HQIFS. The HQIFS data is used by numerous decision makers and was extensively used during BRAC. Decisions regarding mobilization expansion capability, facility investment potential, and infrastructure readiness are based in part on HQIFS data. These decisions may negatively impact on your facility if the HQIFS data is not accurate.

(5) Building Ownership. All buildings at your installation are “owned” by the installation Commander. The installation Commander has a Memorandum of Understanding (MOU) and an ISSA with the Medical Commander for the use of buildings at the installation. The DPW provides services (fire protection, security, utilities, real property IFS-M reporting, and possibly others, such as maintenance) based on the MOU and ISSA.

(6) Approval Process. The only person at the installation who can change the use of a building in the IFS-M database is the Real Property specialist. The Real property specialist has to obtain permission from their higher headquarters to change the use of buildings. Changing a building to, or from, a medical use category code needs approval from HQ USAMEDCOM, ACSIE&FM. ACSIE&FM also coordinates all VETCOM and DENCOM conversion requests for approval.

(7) Leases. Leases for additional space off post must be processed through the DPW and the local District Army Corps of Engineers. The lease process requires a minimum of 6 months lead-time. All Army leases are required, by law, to be processed through the Army Corps of Engineers.

(8) “Modular-type” facilities. “Modular-type” facilities can be identified as Medical Equipment, Real Property, or a Relocatable Building.

(9) Medical Equipment: Follows the equipment approval and acquisition procedures per *AR 40-61, SB 8-75-11* and *SB 8-75-MEDCASE*, for CEEP, Super-CEEP and MEDCASE. Examples of medical equipment are Bio-Safety Level 3 Facility (BSL3) units and MRI units. If the purchase price is less than $250,000, use Operation & Maintenance Defense (OMD) or OMA funds. If purchase price is equal to or greater than $250,000, use OPD or OPA.

Table 5-B-4
Relocatable Building Validation
Percentage (f) = (a + b + c + d) / (e) * 100

	(a) ($000)	(b) ($000)	(c) ($000)	(d)† ($000)	(e) ($000)	(f) (%)	(g)‡	(h)‡
Facility Type (e.g., barracks, admin, classroom, dayroom, arms room, maintenance, laundry, latrine, storage)	Building Disassembly (disconnect and removal from foundation)	Repackaging (including normal repair, refurbishment of components)	Non-recoverable Building Components (fasteners, seals, skirting, anchors, etc.)	Foundation	Purchase Cost of Relocatable Building (Including delivery and set up)	%	Facility is relocatable (≤20%)	Facility is Real Property (>20%)

Notes:

† "Foundation" includes blocking, footings, bearing plates, ring walls, and slabs. For the purpose of this calculation, "Foundation" does not include construction cost of real property utilities, roads, sidewalks, parking, force protection, fencing, signage, lighting, and other site preparation (clearing, grubbing, ditching, drainage, filling, compacting, grading, and landscaping).

‡ If the percentage in column (f) is less than or equal to 20%, enter "Yes" in column (g). If the percentage in column (f) is more than 20%, enter "Yes" in column (h).

All requests for relocatable buildings must be provided on the Relocatable Building Request Worksheet to the DPW for approval action.

See Table 5-A-1 for approval authorities.

Table 5-A-1
Personal Property Relocatable Building Approval Authorities [1]
(*AR 420-18*) (OMB Cir. A-11)

Relocatable Building Action	Director Installation Management Activity (IMA) and MACOM Commander (for areas outside of the geographic boundaries of HQ IMA)	DASA (I&H)	Office of the Secretary of Defense (OSD)
Lease or Contractor-Provided	**Time:** Not to exceed 1 year and **Cost:** Not to exceed $100,000.	**Time:** Greater than 1 year and less than 3 years **Cost:** Greater than $100,000 per year	**Time:** Greater than 3 years
Extension of Existing Lease	**Time:** Not to exceed 1 year and **Cost:** Not to exceed $100,000 per year (maximum of 3 years).		
Transfer to Other Locations	**Time:** Not to exceed 1 year and **Cost:** Not to exceed $100,000 per year.		
Option-to-Renew Clause	**Time:** Not to exceed 1 year and **Cost:** Not to exceed $100,000 per year.		
Purchase as Personal Property	No Authority	**Time:** Greater than 1 year and less than 3 years	**Time:** Greater than 3 years

For purchase of relocatable less than $250,000, use OMD or OMA funds. If purchase price is equal to or greater than $250,000, use OPD or OPA for lease of the relocatable building.

[1] All authorities are on a "per lease" basis.

(10) Real Property: Separate and individual building, structure, utility system or other real property improvement identifiable in the three-digit category code listed in *AR 415-28* and following the requirements in *AR 415-15*. The DPW is the installation staff officer responsible for work classification and approval at the local level or forwarding to the Regional Installation management Activity (IMA) for approval action. Classification will be identified as repair, minor construction or MILCON. Sustainment, Restoration, Modernization funds (OMD, OMA, MED MILCON, or MCA) are used only for property of this category.

(11) Relocatable Building: A personal property building designed to be readily moved, erected, disassembled, stored, and reused. The estimated costs for building disassembly, repackaging (including normal repair of components), and non-recoverable building components, including foundations, may not exceed 20% of the acquisition cost of the relocatable building. (See Table 5-B-4, Relocatable Building Validation for formula)

(a) Operating Lease: Must meet all (6) criteria:

(i) Ownership of the relocatable building remains with the lessor during term of lease and is not transferred to the Government at or after the end of lease term.

(ii) Lease does not contain a bargain- price purchase option.

(iii) Lease term does not exceed 75% of the estimated economic life of the relocatable building.

(iv) Present value of the minimum lease payments over the lease does not exceed 90% of the fair market value of the relocatable building at the beginning of lease term.

(v) Relocatable building is general-purpose, not a special purpose of the Government and is not built to the unique specification of the Government as lessee.

(vi) There is a private sector market for the relocatable building. For operating lease, use OMD or OMA funds.

(b) Capital Lease: Any lease other than a lease-purchase that does not meet criteria of an Operating Lease. NOT RECOMMENDED, capital leases require funding the entire lease up-front and withdrawing the lease payments.

(i) If less than $250,000, use OMD or OMA funds.

(ii) If equal or greater than $250,000, use OPD or OPA.

(12) Site Preparation (prep): Site prep for any of the “modular-type” facilities is considered installation real property and follows *AR 415-15* and *AR 405-45*. Site prep includes: foundations, exterior utilities, parking, lighting, and other construction costs. The DPW is the installation staff officer responsible for work classification and approval at the local level or forwarding to the Regional IMA for approval action. Classification will be identified as repair, minor construction or MILCON.

(13) The activity is not allowed to “keep” the building if purchased as personal property. Disposal or an approved reuse plan is the only options available at the end of the approved period of use. I n extremely rare instances a relocatable building may be converted from personal property to real property with approval through the funding MACOM, the Center for Public Works and the Office of the Assistant Secretary of the Army for Installations, Logistics, and the Environment.

m. Equipment Site Preparation.

(1) General. Equipment site preparation is a responsibility of the Facility Manager. Facility Managers coordinate and develop requirements for installation of Super-CEEP and MEDCASE equipment purchases.

(2) Planning and Coordination:

(a) Planning for site prep should begin during initial equipment programming. Funding to support Super-CEEP and MEDCASE site preparation is centrally managed at ACSIE&FM. Site prep should be completed prior to the equipment delivery date.

(b) Repair or minor construction projects to support failing infrastructure, aesthetics or functional requirements should be planned and programmed as SRM projects and timing should be in coordination with site prep activities. Funding to support repair or construction projects in support of these equipment purchases are addressed in Supply Bulletin 8-75-11, Chapter 8-9, paragraph d: "All projects will be submitted to the MSC for validation, approval and regional prioritization. Upon approval, the MSC will prioritize and fund the project based on funds available and if it is within specified funding range. Currently, this range is $25,000 to $300,000. Projects greater than $300,000 will be forwarded by the MSC directly to ACSIE&FM for approval. The ACSIE&FM will release funds for approved projects. Projects will be funded in accordance with the MEDCOM prioritizing scheme and the MTFs ability to execute." Items purchased for MILCON projects are exempt from the site preparation program.

(3) What is considered Site Preparation or "site prep" for installing Super-CEEP and MEDCASE purchased equipment? The following list, thought not all inclusive, provides guidance on what qualifies for site prep.

(a) Site preparation consists of providing the means to physically attach the piece of equipment to the real property MTF, which may include plumbing, cabling, or wiring necessary for the specific piece of equipment.

1) Secondary utility work necessary to connect the equipment to existing utility services within the building. This work lies between the primary entry or source within the building and the room in which the equipment is to be placed.

2) Installation of air conditioning for types of equipment where the manufacturer's written specifications states that the equipment must be operated in an air-conditioned space and provides temperature and/or humidity parameters which cannot be sustained by existing air conditioning.

3) Provision of false floors or platforms required solely for the operation of the equipment.

4) Installation of required shielding for electromagnetic radiating devices such as X-ray machines and linear accelerators. This includes wall construction with lead lined sheetrock.

5) Temporary removal and reinstallation of items such as portions of walls, roof, and utility systems to permit installation of equipment. Reinstallation may involve rerouting or relocation of some items.

(b) Most work eligible for funding as site preparation will be classified as "non-construction" (i.e., engineer's "M" cost account, municipal services) by the DPW on the work request (DA Form 4283). The DPW is responsible for properly segregating and classifying all work.

(c) Site prep that adds real property outside the footprint of the MTF, such as a foundation and utilities for a Relocatable building, will be considered construction, NOT site prep.

(d) Only that work which is specifically required to make the piece of equipment operate is eligible to be funded as site preparation. Work generated to repair failing infrastructure, or for aesthetic or functional reasons will NOT be funded with site prep funds.

(e) The repair or minor construction work associated to repair failing infrastructure, improve aesthetics or functions may be performed in conjunction with the site prep work, but funding and approval will follow the procedures of Supply Bulletin 8-75-11, Chapter 8-9, paragraph d.

(f) The transportation, assembly, installation, calibration, and testing of the equipment are NOT site prep costs.

(4) Funding policy:

(a) Site preparation funds support equipment purchased through Super-CEEP and MEDCASE Programs. Items purchased for MILCON projects are exempt from this program.

(b) Site preparation costing less than $1,000 will be financed from local resources.

(c) Activities are not authorized to reprogram site preparation funds to any other requirement unless such reprogramming is approved by the ACSIE&FM.

(d) The following documents are required to be submitted to the ACSIE&FM site prep point of contact for site prep funding release:

(1) An approved DA Form 4283 identifying work classification and approval amounts.

(2) Completed Site Prep Categories spreadsheet

(3) Scope of work and cost estimate of site preparation to be completed.

(e) Site preparation funding will be distributed via Financial Authorization Document (FAD) and will be accounted for under Army Management Structure Code (AMSCO) 847714.87

n. Support Agreements

(1) Inter-Service Support Agreements (ISSA): The FM should reference DD Form 1144 and *AR 5-8*. The ISSA designates a supplying and receiving activity, and governs services required from the providing agency to the receiving agency. As such, resource managers and Commanders or their designated representatives usually sign it. The proponent for the ISSA is Resource Management. For each support category, a basis for reimbursement and estimated reimbursement amount are provided. Support categories that are usually related to facility management functions are:

- Common Use Facility Operations, Maintenance, Repair and Construction
- Facility Maintenance and Repair of Real Property and Space Management
- Utilities

(2) MOA. The FM should include the following when developing a draft MOA:

- Detailed Standard Level of Service (Includes compliance standards, such as JCAHO, response times, quality assurance)
- Quantity
- Frequency
- Basis for Reimbursement (Includes basis of payment, method of payment transfer, rate scheme)

(3) Basis for Reimbursement. Basis for reimbursement can be complicated when installation facility support services are supplemented with contract support services. The FM is responsible for working with the RM and the supplying agency, in most cases the DPW, on development of a basis of reimbursement that offers the greatest economy, efficiency, and flexibility. Costs, such as annual fees, special service rates, and internal and external overhead, may be immediately apparent from the ISSA reimbursement schedule. A clause should be included giving the receiving agency, such as the MTF, the authority to

use an alternate supplier, such as an outside contractor, if the supplier cannot meet the conditions stipulated in the ISSA. This is commonly referred to as right of first refusal.

8-8. PROJECT MANAGEMENT

a. General: Project management consists of planning, programming, budgeting, and executing sustainment, restoration and modernization projects. This section applies to major repairs for projects over $25,000. Projects that are under $25,000 are considered minor repairs. Minor repairs are managed as part of the activity's recurring maintenance and minor repair program (i.e., R-Line distribution).

b. Minor Construction: Reference 10 U.S.C. Section 2805 (Public Law 107-107), *AR 420-10*, Management of Installation Directorates of Engineering and Housing, 2 Jul 87, and *AR 415-15*, Army Military Construction Program Development and Execution, 30 Aug 94. The threshold for minor construction projects is $750,000.

c. Life, Health, or Safety: A special threshold for minor construction projects to correct life, health, or safety deficiencies became effective with Section 2801 of Public Law 107-107. Effective with the President signing the FY02 Defense Authorization Act, Section 2805 of Public Law 107-107 provides special threshold for unspecified minor construction projects to correct life, health, or safety deficiencies. The limits are not retroactive. The limits are as follows:

(1) The minor MCA subsection of the Law adds the following: "However, if the military construction project is intended solely to correct a deficiency that is life-threatening, health-threatening, or safety-threatening, a minor military construction project may have an approved cost equal to or less than $3,000,000." Medical Unspecified Minor Construction (UMC) projects will be submitted to:

Health Facility Planning Agency (HFPA)
5109 Leesburg Pike, Suite 679
Fall Church VA 22041-3258

UMC projects must be accomplished with photos, clear description of the project requirements, and justification identifying the life-threatening, health-threatening, or safety-threatening deficiencies.

(2) The O&M section of the Law is changed to the following:

(a) $1,500,000, in case of an unspecified military construction project intended solely to correct a deficiency that is life-threatening, health-threatening, or Safety threatening; or

(b) $750,000, in the case of any other unspecified military construction project."

(3) IMA or MACOM Commanders can approve the new O&M limit or delegate it to their Delegation of approval authority is to be in writing. The new special threshold does not change any other approval limits or work classification requirements. The local DPW maintains the responsibility for work classification. However, it is the responsibility of the Facility Manager to justify deficiencies that are questioned by the DPW. ACSIE&FM will assist the MTF in stating the life-threatening, health-threatening, or safety-threatening deficiencies and endorse the need for valid projects

d. USAMEDCOM Approval Process: The local Facility Managers, with approval from their Commands, submit all projects over $25,000 to the RMC/MSC for validation, approval and regional prioritization. Upon approval, the RMC/MSC will prioritize and fund the project

based on funds available and if it is within specified funding range. Currently, this range is $25,000 to $300,000. Projects greater than $300,000 will be submitted by the RMC/MSC to ACSIE&FM as a Major Repair and Renewal (MRR) Project. The request for submission of unfunded MRR projects for the budget year plus 2 years will be requested annually via a data call in April of the current year. Facility Directors are responsible for obtaining Command approval of their program prior to submission to ACSIE&FM. Emergencies or urgent requirements that are identified in a current fiscal year and cannot wait for annual submission will be submitted through the RMC/MSC Facility Director to ACIE&FM for evaluation for insert into the current year program. Each request will include a justification of the emergent/urgent requirement and where in the regional priority list it will be inserted. During the fiscal year, when a project is 'ready', funding for a MRR project will be released via FAD to the MTF.

e. Department of the Army Approval Process. Any repair project must have an approved DA 4283 work request and/or Maintenance & Repair (M&R) DD1391 for the work being performed. It is the DPW/Garrison Commander's responsibility to classify work as maintenance, repair or new work (construction). An approved DA 4283 must be signed by authorized DPW personnel for the repair and/or construction of the project. Work classification ("K" & "L") should be identified on this document. If the repair ("K") work exceeds $3M or the work exceeds 50 percent of the replacement value of the facility greater than $500,000, then a Maintenance and Repair (M&R) DD 1391 must be developed and approved by the Department of the Army. Form DD 1391s are developed by the local DPW and forwarded up to the regional IMA. The Regional IMA will review the 1391 and forward the 1391 to Headquarters, IMA who forwards the 1391 to the Army Chief of Staff for Installation Management (ACSIM). Final approval is given by the Deputy Assistant Secretary of the Army (DASA) Installation and Housing. If the repair 1391 exceeds $7.5 Million, then Congress must be notified 21 calendar days before project approval is given by DASA (I&H). M&R DD1391s only approve repair work, if there is new work (construction) associated with the project within O&M limits, this work needs to be approved on a DA4283.

f. Medical Facility Support Program. The Medical Facility Support Program allows FMs and USAMEDCOM DPWs access to a number of innovative and cost-effective operations, maintenance, repair, minor construction contracts as well as a variety of facility-related services. The compilation of these contracts is called "toolbox". Toolbox contracts are in place at selected contracting activities called "Medical Support Teams" (MSTs) that meet the regulatory requirements under the Economy Act and Intra-DoD Offloading. The USAMEDCOM and has established MOUs with MSTs. This allows MTFs to obtain operations and maintenance and other support services on a timely and cost effective basis. The DPW must be offered reimbursable projects prior to obtaining the services from alternate sources. Toolbox allows the FM and DPW a way to accomplish mission requirements. The USAMEDCOM TOOLBOX manual provides guidance on planning, executing, and administering work within the Medical Facility Support Program.

g. Responsibilities.

(1) HFPA.

(a) Provide Medical Support Commands and Regional Support Commands with annual programming guidance and criteria for development of medical facility projects and programs.

(b) Provide Program Analysis and Evaluation for the Medical MILCON Program.

(c) Provide Master Plans and special studies for AMEDD facilities

(d) Develop planning documentation for Medical MILCON Projects.

(e) Perform user reviews of Army medical facility designs for medical functionality.

(f) Submit the proposed Army medical facility program to the ASD(HA) Portfolio Planning and Management Division

(g) Monitor and analyze medical construction program execution.

(2) ACSIE&FM. ACSIE&FM has the responsibility for management of project support services and the toolbox program. ACSIE&FM will:

(a) Identify MSTs to provide the acquisition and engineering/technical support for toolbox and negotiate MOUs.

(b) Identify and provide scopes of work to MSTs for those services that are required by FMs support operations and maintenance.

(c) Issue and maintain the toolbox manual.

(d) Provide technical assistance to the FMs using project integrators.

(e) Coordinate COR duties in support of the contracting officer.

(f) Provide technical assistance to FMs in preparation of development of work plans and cost estimates.

(g) Review request for contract services from FMs and forward to MST.

(3) Facility Managers. FMs will:

(a) Develop internal procedures for implementation of toolbox contracts.

(b) Establish working agreements with the DPW and other host installation support activities for processing work requests and obtaining approval for reimbursable projects.

(c) Identify to ACSIE&FM any additional services desired for inclusion into toolbox.

(d) Insure the complete requests for services packages are prepared for processing through the MSTs.

(e) Maintain a file of each delivery order issued by the contract POC for the activity.

(f) Provide required level contract management of each project.

(g) Provide the contract POC a receiving report or completion of services statement, as required.

(4) DPW Interface. The DPW must:

(a) Receive requirements for the FM.

(b) For approval of repair work or new work, return approval to the FM with a DPW signed work request, DA 4283, showing work classification, K, L, etc.

(c) Accomplish work by:

- In-house work forces or other pre-established contracts.
- Competitive bid.
- Accomplish work using toolbox contracts.

h. Work Plans. Work plans are an alternative means of project execution in lieu of the lengthy process of full-scale project design and execution. The contractor generates a work plan for the project based on a site visit and a written scope of work. This work plan is provided to the FM for review and comments. The FM must obtain all local reviews and coordinate the return of all comments. The work plan includes these items. Some of these can be waived on small and uncomplicated projects.

(1) Executive summary providing a brief description of the work

(2) Narrative description of work required, referencing study and design calculations

(3) Sequential listing of steps required for the project execution

(4) Work schedule

(5) Drawings, as applicable

(6) Standards and engineering specifications

(7) Engineering calculations and analysis

(8) Scope of work
(9) Material take-offs
(10) Catalog cuts and equipment specifications
(11) Manufactures and installation procedures or execution specifications
(12) Outline of training
(13) Outline of O&M documentation
(14) Video of site

i. Work Plan Coordination. Reviews and coordination of these work plans and/or design must be efficiently accomplished in order for toolbox major repair and minor construction projects to. This reduces the need for costly modifications and delays during the construction phase. All functional areas should be involved in the reviews. Reviewers will screen proposed work plan for conflicts and/or omissions within their functional area. They should provide written comments in the Corps of Engineers comment review format (Dr. Check's software program, www. Projnet.org) within the suspense time set for the review by the Facility Manager. The Facility Manager will compile and forward comments to the appropriate Corps of Engineers District. The work plans should be reviewed in the following functional areas as applicable to the size and type of project:

FUNCTIONAL AREA REVIEW AGENCY

- Facility O&M Facility Manager
- Physical Security Phys Sec Br/ PMO
- Information Systems Info Mgmt Office
- Environmental HealthOccupational Health
- Safety Safety Officer
- Fire Safety DPW
- Environmental Assessment DPW
- Historical ComplianceDPW
- Utility System Standards DPW
- Mechanical System Standards DPW
- Technical Engineering Criteria DPW
- Installation Design Guide DPW

8-9. FACILITY REPLACEMENT

a. Regulatory Basis. *AR 415-15*, Army Military Construction Program Development and Execution, establishes Army policies, responsibilities, and procedures for the development and execution of MCA and Unspecified Minor Military Construction, Army programs. Section 1-20 of *AR 415-15* specifies responsibilities of The Surgeon General in Medical Military Construction Programs. DA Pam 420-9 shows an MCA program development flow chart, illustrating the process for MCA program design through execution.

(1) Projects for construction of new or replacement facilities costing more than $750,000 must be submitted to Congress for funding if their costs exceeds specified limits. The process for preparing the documentation for Congress is known as construction programming. Typically the installation master planner who works within the Directorate of Public Works prepares this documentation. Installation master planning supports the process by coordinating and preparing the 1391.

(2) Construction programming is divided into several funding categories. The medical construction program (MED MILCON) is used to fund construction of new clinics, hospitals, medical training facilities, and medical research facilities. MCA is used to fund the

construction of barracks, administrative buildings, childcare centers, and many other types of non-medical projects.

b. Requirements Identification. Identifying requirements for the MED MILCON program is the responsibility of the entire Army Medical community. Once identified, MED MILCON projects are included in the Future Years Defense Plan. The objective of a 50-year life cycle for the medical infrastructure can only be achieved if requirements for construction projects are identified early in the planning process and supporting documentation is carefully completed.

c. MED MILCON Development. To develop the MED MILCON Program, each year the OSDHA requests a prioritized listing of all requirements for MED MILCON projects for a six year period. The Army's listing of projects is developed by the MSCs and submitted through the USAHFPA and the Army Staff to ASD/HA. Typical projects include:

(1) Complete replacement of a facility. Criteria for a justification for a replacement facility include:

- There is an additional mission.
- The current facility is substandard and cannot pass accreditation (even if the Life safety Upgrades (LSU) or Addition and/or Alteration (ADAL) is performed.
- An economic analysis identifies a new facility as more cost effective than the LSU or ADAL.

(2) Consolidation of two or more freestanding facilities. Consolidations generally occur when two or more facilities are required for one mission. Justification for consolidation depends on the condition of the facilities and the impact numerous facilities have on the mission.

(3) Addition and/or alteration (ADAL) to an existing facility. An ADAL is required when space, services, or systems are required in addition to the existing facility. This assumes that the existing facility is in adequate or repairable condition.

(4) Life safety Upgrades (LSU): LSUs are required when NFPA standards are not met, or when the facility cannot obtain JCAHO accreditation. Generally, JCAHO accreditation is not obtained due to facility deficiencies, which cannot be remediated with simple repairs or corrections.

d. Documentation. Documentation required for MED MILCON projects is:

(1) Project Planning Package/1391. DD Form 1391 is the form that officially requests project authorization and appropriation by Congress. As soon as a MED MILCON requirement is identified, a DD Form 1391 should be initiated. The MED MILCON program is a six-year program. The fiscal year of execution of a MED MILCON project can be estimated to be six years from the time of project identification. The fiscal year of execution will be adjusted annually, as the MED MILCON project develops. With few exceptions, such as a Congressional insert, DoD requires that project identification be at the 35 percent design (concept) stage before the DD Form 1391 is submitted to Congress.

(2) Project Narrative. Project Narrative summarizes the sizing decision process, siting, significant planning information and results.

(3) PFD. Program for Design, (PFD), space program, including the required number of parking spaces.

(4) Equipment Planning. Defense Medical Facilities Office (DMFO) is responsible for planning for installed (built-in) medical and dental equipment and the associated MILCON budgeting to support this requirement. DMFO shall provide the using Military Department with an initial equipment listing based on the Program For Design for their review and input prior to furnishing the document to the Design Agent. Each equipment list may be tailored or modified by the using Military Department as appropriate. Equipment in Logistical

category Codes E and F may be altered by the using Military Department if funding source requirements are not exceeded.

(5) Project Book. The Project Book summarizes existing site conditions and utilities. The following information, at minimum, is required:

(a) Area maps, location maps, site location, site description (to include grades, gates, etc), style of architecture, construction season limitations, seismic, wind and snow considerations, SOFA, host country agreements, soil and foundation conditions, utility conditions (water, sewer, power, steam, electrical capacities and location), site restrictions (airfield, AICUZ potential helipad approach/departure zone obstructions, flood land, rights-of-way, etc.), and National Capitol Planning Region considerations, etc.

(b) Utility availability, existing fuel sources, central heat or chilled water systems and capacities, power service characteristics and locations, electrical distribution, water and wastewater considerations.

(c) Environmental impact requirements, archaeological and historical considerations, explosive ordinance locations, contaminated soil (fuel, asbestos, etc.), coastal zone considerations, wetlands and watershed considerations, threatened and endangered species considerations, water quality, air quality, asbestos contamination, protection of natural resources information, and any other EPA or OSHA considerations necessary which might impact the MILCON project.

(d) Security requirements, contingency or blast considerations and Anti-Terrorism / Force Protection (AT/FP) requirements.

(e) Fire protection considerations, such as accessibility and water supply.

(f) Communications, information or data systems, telephone and signal interface requirements for fire, police, etc., telephone switch capacities and line availability for MILCON project, Energy and Utility Monitoring and Control System (EMCS, UMCS) interface, master antenna, cable TV and closed circuit availability, computer interface, and all other similar or useful information.

(g) Preliminary analysis of replacement versus addition/alteration where requested by DMFO.

(h) Completed site survey.

e. MILCON Project Space Management: The MILCON replacement of a facility always draws auditors and high-level command interest and requires special emphasis. The cost-effective reuse/demolition of the old facility is always one of the major items of interest. It is mandatory to complete the following procedures at least 12 months prior to occupancy of the new facility. Once completed, update the process periodically until final disposition of the old facility occurs.

(1) Establish a space utilization inventory for new and existing facilities by department or activity. The space inventory already exists for new facility in the form of the PFD. The PFD is the space program that the architect used to design the new facility. The PFD identifies assigned personnel (included are the contract and partners if identified during the programming stage) and the room or space required by these personnel and their activities. If the MTF does not have an existing inventory of assigned space, the MTF must develop it. If a building is excess, determine only the buildings gross area. This will identify all known excess facilities and provide a departmental inventory of assigned space for all activities not included in the new facility.

(2) Calculate space requirements by department or activity. This requirement already exists in the PFD. The HFPA prepare the PFD to meet the DoD medical space planning criteria. The only activities not covered by the PFD should be as a result of new missions or activities purposely not included in the new construction. Calculate the space requirements for these activities using the DoD Medical Space Planning Criteria (MSPC). This criterion exists in a PC-based, automated format that is available from HFPA. The DoD MSPC is contingent upon optimal conditions at a medical center. Because of this, you may

find that the criteria are above what your MTF actually requires. This will not be unusual especially at community hospitals. In those instances, use your professional and clinical common sense to establish a requirement that meets the needs of your activity. There should be few, if any, instances where the planning criterion does not provide sufficient space.

(3) Identify space allocation deficiencies and excesses by department or activity. This step is simply a comparison of the space inventory versus the space requirements. This will identify space deficiencies and excesses.

(4) Develop and evaluate space management options. There are basically three ways to satisfy space deficiencies.

(a) Consolidate into the best existing facilities. The activity must begin by evaluating existing facilities to determine if any remaining facilities can satisfy the space deficit. If renovation is necessary, compare the renovation cost to the cost of new construction and leasing. If renovation is the most cost-effective solution, the activity must consolidate into the best facilities. In no instance will a World War II wood building be acceptable as a medical facility. Vacate all World War II wood buildings as soon as possible and find other facility solutions to replace them.

(b) New construction, permanent, or temporary: If acceptable existing facilities are not available, take steps to initiate new construction projects. This can be done as a submission to our minor construction program (greater than $25K but less than $750K of new work); the Unspecified Minor Construction Program (greater than $750K but less than $1,500,000); or the construction is not possible in the required time, a temporary facility may be the interim solution. In all instances, an Economical Analysis of renovation versus new construction versus lease must be available.

(c) Lease. If leasing is a viable option, the Economical Analysis must prove that it is the most cost-effective solution.

(5) Excess space: Identify all excess buildings to the installation as excess to medical requirements. Do this only after coordination with our Director of Healthcare Operations and the Assistant Chief of Staff for Installations, Environment, and Facility Management. The DA medical requirements such as TO&E hospital movement or mobilization requirements, not yet known by the MTF or the installation, may be available at USAMEDCOM headquarters. As per *AR 40-2*, Army Medical Treatment Facilities General Administration, paragraph 1-10b, the installation must formally obtain our approval prior to diversion, conversion, or demolition. USAMEDCOM will not fund the operation and maintenance of any facility/space that is excess.

8-10. FINANCIAL MANAGEMENT

a. General. Facility managers shall adhere to financial guidance published by ACSIE&FM and ACSRM on an annual basis, and any SRM and real property services policies issued by the DCSRM. All transfers of funds into and out of SRM Accounts (Resource Summary Programs R, S, and X) require HQ USAMEDCOM, Office of the ACSIE&FM approval. Reference DFAS-IN Manual 37-100-xx (year), OMD funds are to be used for all facilities in the DHP inventory. All new work less than $25,000 will be charged to the activity mission core funds.

b. Facility Restoration and Modernization

(1) General. Restoration and Modernization provide resources for improving facilities. Restoration includes repair and replacement work to restore facilities damaged by lack of sustainment, excessive age, natural disaster, fire, accident, or other causes. Modernization includes alteration of facilities solely to implement new or higher standards

(including regulatory changes), to accommodate new functions, or to replace building components that typically last more than 50 years (such as foundations and structural members).

(2) Program X. Restoration and Modernization is distributed under the Program X of the Resource Summary through the major subordinates command or directly from HQ USAMEDCOM. Restoration and Modernization projects, termed renewal projects, which have a sustainment component, will be executed as restoration and mode

(3) Minor Construction. Minor Construction ("new work") over $25K is part of Restoration and Modernization. Statutory limitations on minor construction projects are still in place under SRM. New work that is less than $25K shall be funded with Program M and not with Program R dollars.

c. Sustainment

(1) General. Sustainment funding is programmed specifically for the routine maintenance, minor repair, and major scheduled repair of category 500 and certain non-category 500 buildings to the five-foot line. This includes regularly scheduled adjustments and inspections, preventive maintenance tasks, and emergency response and service calls for minor repairs. It also includes major repairs or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the life cycle of facilities. It does not include repairing or replacing equipment in place (i.e., small refrigerators or X-Ray machines) or furniture, or building components that typically last more than 50 years (such as foundation and structural members), or housekeeping contracts.

(2) Program S and R. Sustainment is distributed under the Programs R and S of the Resource Summary through the MSCs or directly from HQ USAMEDCOM. The use of Program R funds is limited to direct cost of maintenance and minor repairs of building components. It is not meant for new work that alters or renovates areas or upgrades systems to higher standards. The Facility Sustainment Model (FSM) is the basis for generating the funds for the Program R distribution. Program R funds shall not be used to fund core facility management branch staffing positions unless they are directly assigned to maintenance activities or quality assurance inspections of maintenance activity. Facility Management Branch employees assigned and authorized on the TDA are Program M funds and are not paid out of R Line. Program R funds should be allocated and monitored by the Regional Facility Director.

(3) Scheduled Major Repairs. The use of Program S funds is limited to scheduled major repairs of building components that have reached their life expectancy. Program S includes major repair projects funded from the RMC $25-300k funds. RMC $25-300k funds that are used by the region for restoration or modernization projects are converted to the X program through ACSIE&FM. The availability of the funds for major repair projects may be dependent upon the severity of the decrease in funding level. ACSIE&FM will approve funding projects above $300k based on priority ranking and availability of funds. Regional and local RMs should not fund projects greater than $300k with Program M funds without ACSIE&FM approval.

(4) FSM and Maintenance Contracts. Existing maintenance contracts that do not have separate contract line items for work other than routine maintenance and minor repair, such as plant operations or ground maintenance shall be modified with new contract line items. Any changes to existing maintenance contracts shall not cause an increase in the approved Program R funding level. New maintenance contracts shall also be designed accordingly to be within Program R funding levels. OSD FSM model does not have a requirement for plant operations, grounds maintenance OSD specifically excludes: "custodial services, grass cutting, landscaping…." from the Sustainment definition and states it should be part of facility operations.

d. Real Property Services. Real Property Service includes the cost of utilities, plant operations, municipal services, fire and emergency response services, and facility engineering services. Facility managers should consult their respective Resource Manager to ensure utility payments are based on actual metered costs for those buildings that are metered.

e. Environmental Program. Environmental dollars are “fenced” and can be used only for environmental projects. This program has high visibility. Execution is monitored against programmed requirements identified in the Environmental Program Requirements-USAMEDCOM (EPR-M) and the Environmental Program Requirements (EPR) data submittal for DHP dollars, respectively. DHP environmental dollars are distributed through Program E of the Resource Summary and are based on requirements identified in the EPR-M. Movement of Program E dollars between activities will be coordinated with the ACSIE&FM Environmental Office.

f. Prior Year Funding. Projects awarded but not completed in the same year may require prior year dollars for within scope modifications. Send requests for prior year funds to your local resource manager. If funds are available, your resource manager will use the documentation to fund the increase. If funds are not available locally, forward the request to ACSIE&FM, or contact ACSIE&FM POC at 210 221-8077 or DSN 471-8077.

g. Site Preparation. Refer to section 8-9e for financial limitations of equipment site preparation.

8-11. REGULATORY CONTROLS AND ACCREDITATION

a. General. The FM shall be responsible for insuring that all buildings are in compliance with the Life Safety Code, NFPA 101. And that all buildings that house patients or in which patients receive treatment are in compliance with the JCAHO. For research facilities, the FM shall reference all applicable accreditation organizations, such as the CAP, and the AAALAC. Regardless of whether the facility has a JCAHO requirement or not, the FM shall be responsible for the development of a utility management performance plan and coordination of pertinent sections of all other required performance plans. It covers:
FM Responsibilities, Organization, & Staffing
Systems Overview and description
Facility Training program and requirements
Critical Systems List and inventory
Maintenance procedures
Emergency preparedness procedures
Testing Requirements
Performance Indicators

b. Environmental Management:

(1) Refer to *AR 200-1* and *AR 200-2*. Within the context of the facility manager’s organizational span of control, the facility manager, the Chief of Logistics, the Safety officer, and the ESO are the primary personnel responsible for environmental compliance in USAMEDCOM facilities. Environmental compliance at the installation is the responsibility of the installation Environmental Division who often is part of the Directorate of Public Works. All regulatory issues should be coordinated through the ESO.

(2) Environmental Compliance on Projects: It is the facility manager’s responsibilities to make sure that scope of all major repair projects include environmental

abatement, such as asbestos, lead paint, etc. where required. If not sure of the extent of environmental mitigation, the facility manager should have test performed for verification.

8-12. MEASURING PERFORMANCE

In addition to FLCM, the USAMEDCOM Facility Strategy is influenced by the practice of management via a "Balanced Score Card" (BSC). The Surgeon General of the Army/ USAMEDCOM Commander has instituted the use of the BSC as the strategic management tool. It is the bridge to operational actions that realize strategic goals and objectives. Facility management performance is based on both internal program review and external benchmarks. Internal program review for facility management operations is accomplished through the CLRP, as prescribed by *AR 11-1* and USAMEDCOM *Pam 700-1*.

8-13. FACILITIES/LOGISTICS COMMAND REVIEW PROCESS

a. General. Facility managers are responsible for facilitating, providing input into, and follow up actions related to this process and other required staff assistance visits. The Facility Assistance and Assessment Support Team (FAAST) is the link between ACSIE&FM and this process with respect to the assessment of facility management operations.

b. FAAST Objectives. The FAAST provides assistance, assessment, feedback, and oversight relative to FLCM. The FAAST's services are not limited to just the CLRP and include the following:

(1) Provides comprehensive expertise to FMs and Commanders of USAMEDCOM MTFs in support of the Facility Management function.

(2) Supports Commanders against liabilities from outside agencies, such as OSHA, EPA etc.

(3) Assists and trains the FM organization at the MTF level on how to meet and/or exceed the required standards, and to prepare for the JCAHO and other accreditation surveys.

(4) Provides organized management tools to identify, prevent or eliminate problem areas. Those tools include a roll up of systemic issues and problems to the Facility Directors and Command staff.

(5) Record and communicate the successes of the MTF so other MTFs can benefit.

c. Types of Visits. Types of visits include the Command Logistics Review Team (CLRT), the Organizational Assistance Program (OAP), the Organizational Inspection Program (OIP), Staff Assistance Visits (SAV), Facility Manager Support Visits and other visits, as required.

(1) CLRT: The objective of the CLRT is to periodically review facilities on 36 months or less basis. Visits are both unscheduled and requested.

(2) Facility Manager Support Visit: It is required that a visit be scheduled between 4 and 6 months after a new FM is hired.

(3) OAP/OIP: Organizational Assistance and Inspection Programs are requested by various agencies, such as the Inspector General. These requests can be generated at the USAMEDCOM or regional level.

(4) SAV: Staff Assistance Visits may be requested by facility managers, or facility directors through ACSIE&FM. SAVs may also be directed by ACSIE&FM.

d. Survey Process.

(1) Preparation for a visit: Approximately 60 days prior to a FAAST visit, an introduction e-mail will be sent directly to the FM from the FAAST. The email will provide an

itinerary, a copy of the last visit's report, and checklist for the FM to review. If the visit is in conjunction with a formal review team, such as a CLRT, OAP, etc, the OIC of the team will send a formal letter to the C, LOG or the Command Group through proper channels depending on what type of visit will take place. It is the responsibility of the facility manager to self-assess their organization using the prescribed checklist. The self-assessment should be completed and returned two (2) weeks prior to the visit along with any issues the FM may have so the FAAST can be prepared to address them and work to help solve them during the visit. In addition to the copy of the previous report, checklist and the self-assessment, the FAAST will also review other reports prior to visiting a site such as:

- The current "Vanderweil Facility Advisors" (VFA) assessment to include the FCI
- TRACER
- The current Installation Status Report (ISR)

(2) Checklist

(a) The first part of the visit is spent going through a comprehensive checklist, not just to answer the questions, but to go over the self assessment in detail, review the supporting documentation, such as testing/inspection logs, DMLSS report and other records, and address any issues that the FM or FAAST may have.

(b) The objective of the checklist is to measure the success of USAMEDCOM facility management programs. The checklist focuses on efficiency, effectiveness, and adherence to USAMEDCOM accepted business practices and regulatory compliance. It also provides guidance in the implementation of facility management programs at the activity level, and helps to determine the root cause of a given situation, problem or issue. The checklist is meant to be a working document that is periodically reviewed and modified as required.

(c) The checklist is divided into the following categories:

- Organization Administration and Training
- Resource/Financial Management
- Operations and Maintenance
- DMLSS-FM
- Project Management
- Physical Plant and Site Survey

(3) Building Tour. The Physical Plant and Site Survey consists of a building tour of the primary MTF and the outlying facilities as needed to validate, benchmark and document the current situation concentrating on:

- Mechanical & Electrical Rooms
- Equipment Condition (limited visual assessment)
- Communications Closets
- Roof
- Interior / Exterior
- Life Safety Code Compliance
- Project/Construction Areas
- Areas of concern based on the latest condition assessment, or the last FAAST visit

(4) Interviews. In addition to going over the checklist with the FM, the FAAST will need to interview other people such as those responsible for DMLSS data input, maintenance management, project execution, ISSA/MOA, Budget/Funding, and the possibly organizations outside the MTF, such as the DPW.

(5) Out Briefs. An out brief to the appropriate Command staff, and others, based on findings, is always required. It is the responsibility of the MTF to make sure that the appropriate command staff is available for the out brief. The FAAST will perform a detailed pre-brief to the FM followed by a summary brief to the C, LOG (or the FM's immediate supervisor). Then, the Commander (or representative) is briefed on the overall condition of the facility, the FM organization and any deficiencies and/or advisories that need command emphasis and/or support.

(6) Final Reports

(a) The objective of the final report is to demonstrate the level of efficiency and effectiveness of the facility management organization. The report will identify what the organization does exceptionally well so the success may be shared with the rest of the AMEDD. The report will also indicate where the organization is not meeting USAMEDCOM standards and provide recommendations for improvement. The report consists of:

- Checklist with comments
- Executive summary
- Detailed report
- Photos with captions (as needed)
- A separate DA form 4965 for each deficiency (as needed)

(b) The timeline on developing, staffing and disseminating the final report is as follows:

- Within two (2) weeks of the completion of a visit, a comprehensive draft of the report, executive summary, checklist and photos will be provided to the ACSIE&FM and to the Subject Matter Experts (SMEs) at USAMEDCOM and HFPA for review and comments.
- The SMEs will then have one (1) week to complete the review and provide any comments back to the FAAST.
- Within 30 days of the completion of a visit, the FAAST will send out the final report (to include the executive summary, checklist, photos and 4965s as needed). If the FAAST visit is in conjunction with a formal review team such as a CLRT, OAP, etc, the final report will be sent to the OIC of the review team to be rolled into the official final report and then sent through channels to the MTF. If the FAAST visit is just an assistance visit, the final report will be sent directly to the FM. Copies of the final report will also be sent to the Facility Directors and SMEs.

(c) CLRT Finding Categories.

- Positive: Exceeds published standards and best business practices. Plans, programs or Ideas that qualify will be collected to share with the rest of the AMEDD.
- Advisory: Issue that is not in direct violation of a Code, Regulation or Policy, however requires immediate attention and remediation before it becomes a bigger issue and/or violation.
- Deficiency: Regulatory non-compliance or deviation from DA, USAMEDCOM or other established policy or regulation.
- Deficiency with potential liability: Regulatory non-compliance that could result in a potential liability such as non-accreditation, a monetary fine to either the organization or to the individual, or a potential legal claim.
- Outside Finding: A finding that is outside the control of the MTF.
- Repeat: Uncorrected finding (Advisory or Deficiency) identified in previous survey. Emphasis is brought to the fact that nothing has improved.

(d) CLRT Deficiency Tracking. A separate DA form 4965 detailing each deficiency as to what regulation, code or standard was in violation will be provided with the final report. Each 4965 will require a “Reply by Endorsement” from the MTF Commander to ensure the deficiency and the solution have command emphasis and support. The proposed solution will then be reviewed by the FAAST (or sent to the appropriate SME as needed) for concurrence. The MTF will be notified as to the concurrence or non-concurrence with the solution, and the deficiency and solution will be tracked. If repeat findings are observed during subsequent visits, the uncorrected finding will be noted as such.

8-14. TRAINING AND CAREER DEVELOPMENT

a. Purpose. Requirements of accreditation agencies, such as the JCAHO, places significant emphasis on physical plant management and reinforce the need for a comprehensive facilities career enhancement and educational program.

b. Facility Management Responsibilities. Facility managers are responsible for the development and implementation on all aspects of training associated with their core responsibilities. Facility mangers are required to develop an annual training program for all personnel within the facility management branch. The program includes the nature of the training, whether the training is a regulatory requirement, the personnel assigned the training, the budgeted amount for the training, and the funding source. Training plans will be submitted to ACSIE&FM, Training Coordinator, as requested, on an annual basis, so that the Training Director can consolidate, budget, and schedule training events associated with the USAMEDCOM facility management corporate program for career enhancement.

c. ACSIE&FM Corporate Training Program. The USA USAMEDCOM ACSIE&FM Healthcare Facilities Branch provides assistance to MSCs, Regional, and MTF Facilities personnel in areas of facility management training, and educational career enhancement guidance, and policy determination. These areas are addressed through the Facilities Management Training Coordinator and the Facility Management Support Operations Center. The Healthcare Facilities Branch also offers technical guidance to MSCs, RMCs, and MTFs on O&M issues. The USAMEDCOM facility management corporate program for career enhancement analyses functional skills required for facility managers and FMB staff members, identifies primary training, continuing education, and developmental requirements, and develops staffing methodologies to maintain a high level of expertise in all USAMEDCOM facilities. Many functional skills sets and core competencies have been identified, and are being addressed in basic and advanced facility management courses. The objective of the USAMEDCOM facility management corporate program for career enhancement is to maintain a high competency rate for personnel within the facility management branches.

d. Training and Educational Programs.

(1) A DoD Tri-Service Medical Logistics Facilities Management training program has been established to cover the basis areas necessary to manage health care facilities. The purpose of the course is to provide a broad overview of DoD Medical facility management, and to insure that facilities are operated and maintained in accordance with applicable standards, such as JCAHO, NFPA, OSHA, and EPA.

(2) The Facility Management Applied and Continuing Education course (FM-ACE) is offered through the USAMEDCOM ACSIE&FM Healthcare Facilities Branch on an annual basis. The course is an applied continuing education course. The purpose of this course is to provide facility managers with an advanced level of continuing education and state-of-art

information on a wide range of facility issues, such as CMMS, reliability-based maintenance, and enhancement of customer service.

(3) The U.S. Army Corp of Engineers, Huntsville Division, offers many training courses related to facility management through the Proponent Sponsored Engineer Corps Training course. Facility managers can contact U.S. Army Corp of Engineers directly for application to courses.

(4) The USAF Material Command, School of Aerospace Medicine, Brooks AFB offers environmental courses in hazardous waste and emergency response, as well as other environmental courses. Also, Fort Sill, OK, Directorate of Environmental Quality offers a comprehensive program for environmental training.

(5) Some universities offer degree programs and short courses in facility management related subjects. At the time of this publication, a listing of these programs and courses is not available.

e. Facility Certification Courses:

(1) The American Hospital Association offers a Certified Health Care Facility Manager certification exam for qualified facility managers.

(2) Certification as a Facility Management Administrator is offered through BOMI Institute, Arnold, MD.

(3) Other facility management certification programs include the Certified Plant Maintenance Manager course through the Association for Facilities Engineers and the Certification in Health Facility Management, offered through the American Society of Healthcare Engineers (ASHE).

(4) Funding. Funding for training, education, and certification is the responsibility of the activity. In some cases, sustainment funds can be used for this purpose (refer to the latest USAMEDCOM Facility Information Bulletin for limitations).

f. Career Development

(1) Facility Management Training

(a) Facility Management Basic Course: The objective is to introduce Facility Managers to the basic overview of the Medical Facilities Management and to teach the Integrated Facility Life Cycle Management philosophy.
Location: Sheppard Air Force Base Wichita Falls, Texas
Frequency: Four times per year. Duration: Three-week course

(b) Facility Management Applied and Continuing Education Course: The objective is to provide state of the art managerial and technical information for facility managers and facility directors.
Location: Varies Frequency: Annually Duration: One week

(c) Health Facility Planning Agency Post Graduate Short Course: The objective is to enhance tri-service and interagency collaboration and synergy on execution processes and lessons learned to realize improved efficiencies and quality in all phases of health facility planning, design, and construction.
Location: Varies. Frequency: Biannually Duration: One week

(d) Joint Services Facility Management Symposium: The objective is to provide gain critical insight into external organizations from all services and the DVA with the goal of becoming competitive and proficient managers of our healthcare infrastructure. Whenever practical, this symposium is held in conjunction with the ASHE Annual Conference.
Location: Varies
Frequency: Bi-Annually, sponsorship rotates between services

Duration: One Week

(e) ASHE. The objective is to promote professional facility management through a recognized institution for health care facilities planning and sustainment, and to provide a means for structured professional development and facility management certification. ASHE provides up-to-the-date information on healthcare engineering.
Location: Varies Frequency: Annually Duration: Five Days

(f) Corps of Engineers, Huntsville, AL; Corps of Engineers DFWPROSPECT Courses: The objective is to provide facility management personnel at all levels with access to current courses and areas of interest that may not be available though the Corporate Career Enhancement Programs. See Purple Book for details.
Location: Varies Frequency: Varies Duration: Four hours

(g) Health Services Medical Materiel Management Course: The objective is to familiarize Logisticians with the organization and responsibilities of the Facility Management Branch in a Medical Treatment Facility.
Location: AMEDDC&S Frequency: Varies Duration: Two hours

(h) Intern Program. The objective is to supplement the attrition of USAMEDCOM's current inventory of professional facility managers and facility manager staff with newly trained staff. This program is operated through Madigan Army Medical Center Engineering Department. Applications are accepted on a bi-annual basis. Contact USAMEDCOM for detailed information.