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Civil Engineering

WORKING IN THE OPERATIONS FLIGHT FACILITY MAINTENANCE

OPR: HQ AFCESA/CEOM (Capt T. Wahl) Certified by: AFCESA/CC (Col H. Dean Bartel)
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This volume in this pamphlet series describes the Air Force Engineer's role in activities required to operate, maintain, repair, and construct installation real property using an in-house military and civilian work force and recurring and nonrecurring service contracts. This volume provides detailed guidance for performing the Facility Maintenance mission. The Facility Maintenance Element provides single-point customer support and inspection, maintenance, repair, and modification of real property; trains customers on interfacing with CE for their facility maintenance requirements. This pamphlet series supports AFI 32-1001, *Operations Management*, as the AFI which implements AFPD 32-10, *Installations and Facilities*.

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Chapter 1 Introduction to the Facility Maintenance Element

1.1 Organization and Function

Volume 3, Facility Maintenance, is a guide to the mission, objectives, and management of the Facility Maintenance Element of the Operations Flight. The pamphlet offers guidance by suggesting options and tools to successfully perform the mission. Successful alternatives to these suggestions are encouraged and authorized.

The Operations Flight is responsible for all activities required to operate, maintain, repair, and construct installation real property. The flight is composed of five elements to process requirements in an efficient and timely manner. These elements are Maintenance Engineering, Facility Maintenance, Material Acquisition, Infrastructure Support, and Heavy Repair.

1.2 Mission

The mission of the Facility Maintenance Element of the Operations Fight, as referenced from AFI 32-1001, *Operations Management*, is:

Facility Maintenance Work Centers' mission is to establish all recurring work, minor maintenance and repair, and selected work orders. Because the facility maintenance manager controls the people and resources within the work centers, they can work directly with the customer to execute work. The facility maintenance manager meets with facility managers during periodic visits and records minor maintenance and repair requirements on AF Form 1219, BCE Multi-Craft Job Order or direct scheduled work order (DSWO). Work beyond work center capability or approval is forwarded to the next approval level. Large work order requirements are considered by the Work Request Review Board (WWRB) who determines the priority of execution and method of accomplishment.

1.3 Objectives

The Element has four overall objectives:

(1) provide single-point customer support;
(2) establish periodic facility reviews;
(3) maintain, repair, and modify real property; and
(4) perform the recurring work program.

The following is a brief review of these objectives. Chapters 2 through 5 are an in-depth look at each, providing

guidance and offering tools and suggestions that can be used to meet the objectives; thus, fulfilling the mission of the Facility Maintenance Element.

1.3.1 Single-point Customer Service

The work center customer service unit (CSU) is the primary interface between the Civil Engineer (CE) and the base customers. The facility maintenance managers control the resources within their particular work center. As a result, the facility maintenance manager can schedule and execute work requirements based upon verbal or written guidance directly from the customer. Facility maintenance managers should establish a working relationship with the facility managers and meet with them frequently.

Facility maintenance managers are also responsible for the training of building managers or custodians. The facility maintenance manager controls the resources within the work center, establishes periodic facility visits and reviews, and works with the building mangers to establish schedules. Building managers are encouraged to be good stewards by performing those minor maintenance tasks that do not require specialized crafts. Training is necessary to provide instructions on who to call in CE, when they should call, and the proper procedures for submitting work requests.

1.3.2 Facility Reviews

The facility maintenance manager should attempt to schedule facility visits based on 30- to 90- day cycles, or as required, and accomplish all recurring work, minor maintenance and repair, and selected work orders. Facility reviews performed by the building manager/custodian and the civil engineer personnel foster a sense of ownership and stewardship. This reinforces our commitment to providing customer service.

1.3.3 Maintain, Repair, and Modify Real Property

The periodic facility visits are used to validate and record minor maintenance and repair requirements on an Air Force Form 1219, BCE Multi-Craft Job Order, a direct scheduled work order or an AF Form 332, BCE Work Request. Minor modifications to real property can be accomplished within the work center based on available manpower, man-hours, and skill level capabilities on a direct scheduled work order. These modifications would not normally result in a change to the facility configuration or require capitalization. When such modifications are necessary, the work center CSU will assist the customer in the development of planned work orders and provide feedback on the method

of accomplishment and status updates. The CE personnel and the customers work as a team to share the responsibilities associated with good stewardship and maximizing resources.

1.3.4 Recurring Work Program (RWP)

After emergency and urgent requirements, the facility maintenance manager ensures recurring work is accomplished by reserving hours for this work scheduling before other routine requirements. For the most efficient use of available resources and time management, the RWP should be established so the majority of the requirements are scheduled and accomplished during the facility review cycles.

1.4 Manpower

Air Force Manpower Standard (AFMS) 44EO, *Operations Flight* details the manning for the Operations Flight. Using the detailed formulas and determining the applicable manpower ranges, manpower managers can consult the provided Standard Manpower Tables to identify the manning of the Facility Maintenance Element needs.

While some command and base variations may make manning requirements unique, the Civil Engineer formed the original, typical Objective Squadron, Facility Maintenance Element template to provide overall guidance on the numbers and types of Air Force specialties (AFS) authorized. A senior, non-commissioned officer or civilian was designated to be the chief or manager. Civilians and enlisted military in the various disciplines of 3E0X1, 3E1X1, 3E3X1, 3E4X1, and 3E6X1 may be selected to fill the Facility Maintenance Element manpower positions.

1.4.1 Training

The appropriate training prior to assignment is essential for acceptable work performance.

1.4.2 Enlisted Workforce

The requirement for having a military workforce is to meet the wartime contingency taskings. Each Major Command (MAJCOM) has a military strength distributed to each installation. There is some flexibility in the overall military-to-civilian mix based on the core AFS requirements (Appendix B). Assistance in determining the right mix and numbers required to meet specific base needs can be obtained through coordination with the MAJCOM and Resources Flight Manpower persons.

A Senior Master Sergeant (SMSgt) is earned under the AFMS and is in each work center in the Facility Maintenance Element. At locations which earn more than 100 total

authorizations in Facility Maintenance, a Chief Master Sergeant is earned in lieu of a SMSgt. These positions are necessary to provide the breadth of experience to the Operations Flight and engineers. This position is used as the Element chief/manager or, in some cases, the work center superintendent position.

1.4.3 Civilian Workforce

The Facility Maintenance Element is comprised of a civilian work force, which augments the military forces to accomplish maintenance and repair, recurring work, and modifications to real property. This civilian work force:

(1) provides a higher level of career field knowledge to supplement the senior enlisted force;
(2) provides continuity and stability at the installation during contingency exercises and deployments of military personnel;
(3) has specific duties and responsibilities during base exercises, military deployments, and natural disasters/emergencies; and
(4) provides training to enlisted and other civilian personnel.

The local Consolidated Personnel Center and Labor Management Agreement can give specific criteria for each of these instances. Most civilians hired are at the Journeyman level.

1.4.4 Multi-craft/Multi-skilling Initiative

The multi-crafting and multi-skilling initiatives were established as part of the DMRD 967. The purpose was to enhance the organization by gaining efficiency and productivity. The intent of multi-crafting was to create teams of skilled craftsmen with the purpose of quickly completing work assignments. Both multi-skilling and multi-crafting included using military and civilian personnel.

1.4.5 Matrixing

Productivity gains are achieved through matrixing. Matrixing is the movement of personnel within an element to support an identified shortage in a skill level, AFS, or specialized work task. Inspection of specialized service contracts is one example where craftsmen are used to augment quality assurance evaluators (QAEs) in the Maintenance Engineering Element.

The Working in the Operations Flight pamphlet is primarily a source of processes for accomplishment of the Flight's mission. This volume lists processes for accomplishment of the Facility Maintenance Element mission, including how it relates to other flights and other elements.

Chapter 2 Single-point Customer Service

2.1 Objective and Purpose

Facility Maintenance provides single-point customer service and support. The work centers, the first contact point for any customer service request, act as the central clearing point for all customer contacts in CE. Providing this service requires an understanding of customers and establishing an open communications line.

Customer service is more than just answering questions. It means establishing a working relationship. The customer and Facility Maintenance work as a team to identify, prepare, coordinate, and execute work the customer needs. Anyone who comes in direct contact with the customer is a public relations specialist and must be given training in customer service as part of the overall training program.

The functions and roles of customer service providers are:

(1) communicating customer needs,
(2) providing a problem-solving service,
(3) developing a cooperative working relationship,
(4) coordinating and monitoring customer needs,
(5) instilling cooperative management, and
(6) ensuring a professional performance.

There are two primary methods for identification of requirements and initiation of service requests. The most efficient method is for the customer to call or come into the work center. The second method is the establishment of a scheduled facility visit program. This, ultimately, reduces the number of walk-ins and telephone calls for routine work by letting the customer know when and why service is scheduled. The objective is to get as close to this customer-friendly environment as possible.

Communication between the customer and the CE representative is key to developing a successful relationship that meets the customer's need. Visiting with the customer to have a visual look at what the customer really wants and asking the necessary questions are essential to having a good understanding of the requirements. Communications also means telling the customer about potential problems that may affect the requested requirement. Issues, such as

material shortfalls, long lead times, man-hour availability, and specialty crafts or skill level concerns brought to the attention of the customer early in the planning or programming phases will reduce complaints and dissatisfaction after the task or project is started or completed.

Continuous feedback to the customer ensures a solid working relationship. The day-to-day interaction that occurs between the customer service provider and the customer builds a relationship of trust and cooperation. Notifying the customer on current project or material status is just as important as providing feedback as problems occur. Keeping customers informed before problems arise or calling them to provide information before they call to request it, results in demonstrating a true customer service oriented organization.

Commitment is a matter of pride and the quality of that commitment to the CE mission is at the center of pride. Without it, efforts become routine and lack energy. The need for enthusiasm and drive in order to instill a sense of pride must be demonstrated daily. This is achieved by approaching assigned tasks assertively; being prepared to accept responsibility; and by dedication to the development of skills. Only then can anyone begin to understand the enjoyment of doing a job well. That feeling is called pride.

To meet these tasks requires field experience and a long-term relationship with the base customers. Training and continuous contact with the customer helps in the development of these skills and the establishment of this process.

2.2 Work Center Coordination

Establishing some type of regular and consistent agenda helps the customer develop a sense of trust and knowledge the CE shares their level of concern about the facilities. This can be accomplished through:

(1) meeting regularly, formally and informally, with building managers and commanders to discuss program consideration;
(2) discussing work orders in the planning stage and in progress, engineering projects, and work center concerns; and
(3) establishing a regular agenda to discuss these issues (monthly, quarterly, semi-annually, or annually).

Commanders and building managers play a vital role in determining what work should be accomplished and in what order. By establishing a structured approach to work

acceptance and prioritization, the BCE ensures the work force and available resources are dedicated to work considered essential to the base mission. Because the work center superintendent manages the resources within that work center, coordination with the customer will result in executing the required work when the customer needs it. This objective demonstrates CEs are working with the concerns and mission priorities of customers.

2.3 Building Managers Program

The Facility Maintenance Element is responsible for the building managers program. Building managers are the primary contact for the CE personnel executing work requirements. Under guidelines established by the Air Force Real Property Management, each organization commander is responsible for the care, custody, and protection of assigned real property. Building managers are the commanders' representatives who contact CE when work is required in a facility.

Each facility maintenance manager is responsible for providing training to all building managers within their work centers. (A copy of the *Building Manager's Handbook* is included in this volume as Attachment 3.) When a building manager is first assigned, someone from the work centers should brief the building managers on their duties and responsibilities. They should also receive an annual refresher briefing announcing any changes in CE operations that may affect them. Training should include the submission of work requests for maintenance, repair, minor construction, all project or major work, and procedures for control of keys to the facility. Self-help work should be discussed in detail; as well as, alternative methods of finding materials, funding, and BCE support.

Organizations can contribute to the overall maintenance and repair to their facilities through the self-help program. Detailed information on the self-help program can be found in AFPAM 32-1098, *Base Civil Engineer Self-Help Guide*.

When minor maintenance and repair requirements can become the responsibility of the custodians of the facility, the work centers can then attend to more critical and complex requirements. A good working relationship with base customers benefits the facility maintenance manager, craftsmen, the engineer, and the organization in achieving all other objectives and is the cornerstone of the Facility Maintenance mission.

Chapter 3 Establish Periodic Facility Work Reviews

3.1 Establishing the Work Requirements Schedule

The establishment of a schedule for both facility work requirements and facility work execution is one of the Facility Maintenance Element's most important processes. The schedules provide direct contact between the customer and CE to discuss facility requirements and resolve issues and concerns on a coordinated cycle of visits. An effective schedule helps reduce the number of calls by customers for routine work. A facility schedule also helps reduce routine backlogs of work, allowing a systematic approach to work management.

Historically, the development of these schedules is the responsibility of installation representatives and there are no established criteria for the frequency of visits to each facility. Section 3.2 provides some guidance which can be helpful in determining what to consider in making that decision.

The number of work centers is not as important in schedule development as is the number of facilities assigned to each work center. The more facilities within a work center, the more complex it becomes to establish a program that will allow for all, or most, of those facilities to receive at least a twice-a-year work execution.

3.2 Frequency Guidelines

Typical schedules should be based on a 30- to 90-day cycle unless the age, condition, or use of the facility requires a unique cycle. It is important the established schedule is reasonable and achievable to both the engineer and the customer.

A source of information is the Work Information Management System (WIMS). Historical records can help determine the appropriate cycles for specific or special case facilities. A facility that has a history of high maintenance requirements may initially be placed on a 30-day cycle and later, as maintenance requirements subside, the cycle may extend to 60 days and, eventually, to 90 days. Historical records may help identify facilities with high maintenance trends such as air conditioning, plumbing, or electrical problems. This information can be used to assist the work center personnel in determining potential maintenance problems.

The Maintenance Engineering Element can provide engineering assistance to providing a solution to these problems.

Another source of information to aid in determining frequency is the base facility priority plan, which is available within each CE organization.

Certain mission areas require a higher level of support. When considering this category, issues such as computer and environment controls, computer rooms, Command and Control areas, and command areas can be significant factors.

In the housing category, dormitories, temporary lodging quarters (TLQs), and significant military family housing, general officers quarters or senior officers quarters (GOQs and SOQs) should be included if applicable. Many installations have contracted out this requirement, in part or whole. It is important to review all facility maintenance requirements and contracts so as not to leave out an important requirement or facility.

Any facility that is visited frequently by the base populace is a high-use facility. Special attention to these facilities is necessary to ensure facility standards and appearances are adequately maintained. Examples of high-use facilities include community activities centers, bowling centers, officer and enlisted clubs, and AAFES facilities.

Other facilities to consider in scheduling could include aircraft hangars and minimal-use type facilities. These types of facilities may not require the same frequency of maintenance as other facilities.

Chapter 4 Maintenance, Repair, and Modification to Real Property

4.1 Objective and Mission

Facility Maintenance operates, maintains, repairs, and constructs Air Force real property and real property-installed equipment to accomplish the mission most economically. Both the total life cycle costs and the impacts on the quality of life are considered. The tasks to accomplish these requirements follow.

(1) Maintain and correct emergency conditions within 24 hours.
(2) Provide reliable utilities to meet readiness requirements, maintain quality of life, and satisfy installation needs.
(3) Accomplish work requirements quickly.
(4) Establish standards to address quality, customer's needs, and mission requirements.
(5) Establish a system to provide customers with the costs of work performed or services provided.
(6) Assist in the development and provide annual updates to future plans for major work requirements (e.g., roofing, protective coating).
(7) Develop work plans to effectively allocate in-service resource; including people, facilities, equipment, and vehicles to meet mission and customer needs.
(8) Periodically compare actual man-hours used to accomplish the work with estimated man-hours to eliminate or minimize performance problems.
(9) Establish a process to measure and continuously improve support of base missions and customers
(10) Establish and maintain holding areas for ordered material.
(11) Establish a system to minimize the accumulation and maximize the use of residual material.

4.2 Work Center Coordination

Meeting the tasks that fulfill the mission of the Facility Maintenance Element requires time and experience in the field and a good relationship between the base customers, senior craftsmen, work center planners, and engineers assigned to the Operations Flight. To develop this field experience and a cooperative, long-term, working relationship, the Facility Maintenance managers and senior craftsmen should:

(1) meet regularly,
(2) develop documentation,
(3) classify work,
(4) strive to develop a good relationship with customers, and
(5) ensure craftsmen are properly and adequately trained.

4.2.1 Meet Regularly

Facility Maintenance personnel should meet regularly with building managers, commanders, senior planners, maintenance engineers, and craftsmen. These opportunities to discuss program considerations, quality of workmanship, work orders in planning and in progress, engineering projects, organizational objectives, and work center concerns will benefit all parties and strengthen the Facility Maintenance mission.

4.2.2 Documentation

Customer requirements are received either verbally or in writing. Customer service personnel within the work centers will determine the necessary documentation and establish the appropriate type of work order (Direct Scheduled or Planned Work). Routine work that cannot be accomplished by the building custodian and is not considered urgent enough to be accomplished as essential work should be referenced on an AF Form 1219 and accomplished during a regular facility visit. If the work could result in possible facility deterioration or pose a health or safety hazard, the requirement should be referenced on an AF Form 332 and accomplished as a direct scheduled work order.

4.2.2.1 Direct Scheduled Work

Direct Scheduled Work, previously referred to as job orders, is work that generally does not require detailed planning. These work orders are small and require less than 50 man-hours. Direct scheduled work is immediate or routine and can be maintenance, repair, or minor construction not requiring capitalization.

4.2.2.2 Emergency and Urgent Work

An immediate work order includes emergency and urgent direct scheduled work. Emergency work is work required to correct an emergency condition that is detrimental to the mission or reduces operational effectiveness. It should be completed within 24 hours of notification. An emergency condition is one that, if not corrected immediately, could result in a major compromise of the mission. An emergency will always include, but is not limited to, failure of any utility, fire protection, environmental control, or security alarm system. After duty hours service call desk operations should be developed and explained to all building custodi-

ans, housing occupants, or any one who may have a need to report an emergency.

Work that is not an emergency, but must be responded to and completed within five workdays of receipt or within five workdays after receipt of material is classified as urgent. Urgent work is usually done as a direct scheduled work order. The work center CSU will determine whether the work can be completed without a formal written request, special planning, or material support. If possible, the technician will classify a request as urgent if the work meets the requirements for this classification. If a request does not warrant urgent support, it is routine and will be processed for accomplishment on a 1219. Urgent requests might include broken windowpanes, inoperative faucets, missing roof shingles, or inoperative light switches.

4.2.2.3 Routine Work

Routine work is work that does not qualify as emergency or urgent work, but cannot be done by the building custodian or should be done to maintain the standards of an installation. Routine work should be completed within 30 calendar days or during the next scheduled cycle visit to the facility, unless materials are required. When practical, all routine requirements for a facility should be consolidated and grouped into a single work package, placed on an AF Form 1219, and performed during the next scheduled facility visit. Examples of routine work include loose or missing floor tiles, a commode or urinal inoperative when more than one is available, replacing wall switches or outlet covers, or corroded or broken water handles.

4.2.3 Work Classification

Maintenance and repair (M&R) projects are funded from operation and maintenance (O&M) funds. The MAJCOMs approval authority for maintenance is unlimited. Repair approval authority is limited to $5 million as long as the combined cost of all proposed work for a facility does not exceed 70 percent of its replacement value. Work required to preserve or restore an existing facility is categorized as maintenance and repair work. Examples of M&R are repainting, replacing floor tile or light fixtures, and repairing heating systems. The regularly scheduled facility visits are used to check the condition of the utilities, floors, support structures, or various areas of a building. Detailed programming information is available from the Engineering Flight based upon guidance in AFI 32-1110, *Planning And Programming Real Property Maintenance Projects Using Appropriated Funds (APF)*.

Minor construction means building a new facility or modifying, adding to, or otherwise altering an existing building. Some examples are installing new walls or lighting, relocating existing walls or real property installed equipment (RPIE) and cutting doorways. These projects are funded from operations and maintenance funds. The law limits minor construction (MC) projects to $500,000.

Conjunctive projects combine MC and M&R. The MC portion must be identified separately. For both MC and M&R, the building manager should initiate the project by submitting an AF Form 332, BCE Work Request.

An AF Form 332 requesting a facility requiring new construction must be reviewed by the building manager and signed by the unit commander. The AF Form 332 comes in a four-part set. The reverse of the form contains instructions for preparation, which must be read carefully and followed completely. The work should be described and sketches or diagrams included showing the exact electrical requirements for new equipment. Explain why the work is necessary and when it should be done. The requested work will compete with other work and the priority assigned to it may depend on the justification for that work. The use of clear justification is very important.

Civil engineering will assign one of the following priorities to the work request, consistent with guidance in the Facility Investment Metric (FIM):

(1) **Mission** — Work in direct support of the overall base or tenant unit mission that, if not done, would reduce operational effectiveness.
(2) **Safeguard Life and Property** — Work needed to give adequate security to areas subject to compromise; eliminate health, fire, or safety hazards; or protect valuable property or equipment. Energy conservation work is also included.
(3) **Support** — Work that supports the mission or prevents a breakdown of essential operating or housekeeping functions.
(4) **Necessary** — Not qualifying for higher priority.

Once a work request is completed, an original and two copies are sent to the work center CSU or work center point of contact (POC). They will process a request as soon as possible; however, construction work often requires more review, planning, and scheduling than maintenance and re-

pair work. Delays may occur. To execute the work properly, planners must develop a detailed plan and list of materials. Depending upon the request, prior coordination with the fire department for fire hazards, the base bio-environmental engineer (BEE) for health or environmental hazards, the safety officer for safety hazards, or communications for telephone service will speed the process. The coordination must be completed before the AF Form 332 goes to CE. The CSU or work center POC will provide assistance with regard to who should be included in the coordination effort.

Note

Some installations perform the coordinations as part of the CE responsibilities.

CE will review the AF Form 332 for completeness, and if validated, assign a control number. The work center CSU will return one copy of the form that shows this number in Item 4, with a cover letter stating approved or disapproved.

Work requiring detailed planning or capitalization of the real property records is categorized as planned work. This type of work is usually submitted on an Air Force Form 332, BCE Work Request. The work center crafts people are responsible for planning work that will be accomplished within their work center. Comprehensive planning and estimating determines scope, method, and types and quantities of resources. Estimating determines the quantity of resources. Engineering Performance Standards (EPS) provide a tool to produce reliable standard-hour estimates. This level of planning may be accomplished by the Vertical Repair section of Heavy Repair or through the Maintenance Engineering Element. The Objective Squadron does not identify a separate planning section. Planners are earned and authorized as part of the Journeyman-level crafts position description. Some CE squadrons have a formal planning section located in either the Heavy Repair or Maintenance Engineer Elements with the manning taken from within current authorizations. (Figure 1, Direct Scheduled and Routine Work Requests).

4.3 Coordination Requirements

The requester must coordinate with the appropriate agencies on work that requires CE action to eliminate or correct hazards. This coordination is critical to ensure compliance

with prescribed building, safety, and environmental policies, regulations, and criteria.

Fire hazards are coordinated through the Fire Protection Flight for assignment of a Fire Safety Deficiency Code (FSDC). Fire protection must coordinate on all requested work when either life or safety of personnel is involved. This includes rating of materials, fire protection access to an area or facility, or fire protection criteria affected by the proposed work such as personnel emergency egress, fire alarms, or suppression systems.

Health and environmental hazards requiring the assignment of a Risk Assessment Code (RAC) are coordinated through the Base Environmental Engineer (BEE) who is usually assigned to the base hospital. Safety hazards are coordinated through the base safety office for RAC assignment.

The requested work may have an environmental impact and the Environmental Management Flight should be consulted to determine if work qualifies for a categorical exclusion (CATEX) from environmental analysis. An AF Form 813, Request for Environmental Impact Analysis, will accompany the AF Form 332, BCE Work Request, and be forwarded to the Environmental Flight.

4.4 Work Order

The Facility Maintenance involvement in the work order process includes the review process, evaluation of work orders, managing work orders, and tracking of requests.

4.5 Review Process

A customer notifies the appropriate work center service desk of a work requirement. The facility maintenance manager and supervisor determine whether the requirement can be accomplished via direct scheduled work on the next scheduled visit or to establish a planned work order.

Figure 1. Direct Scheduled and Routine Work Requests

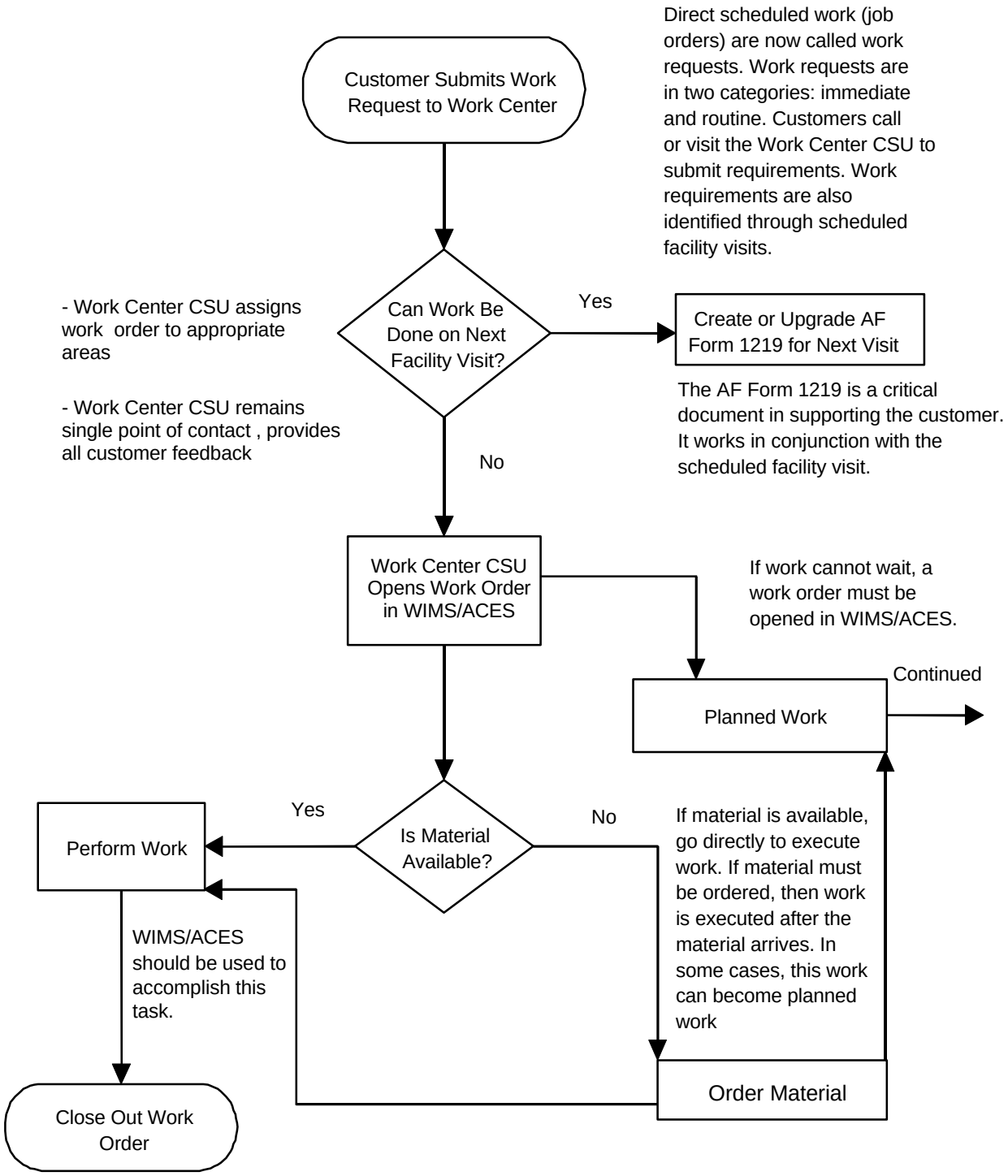
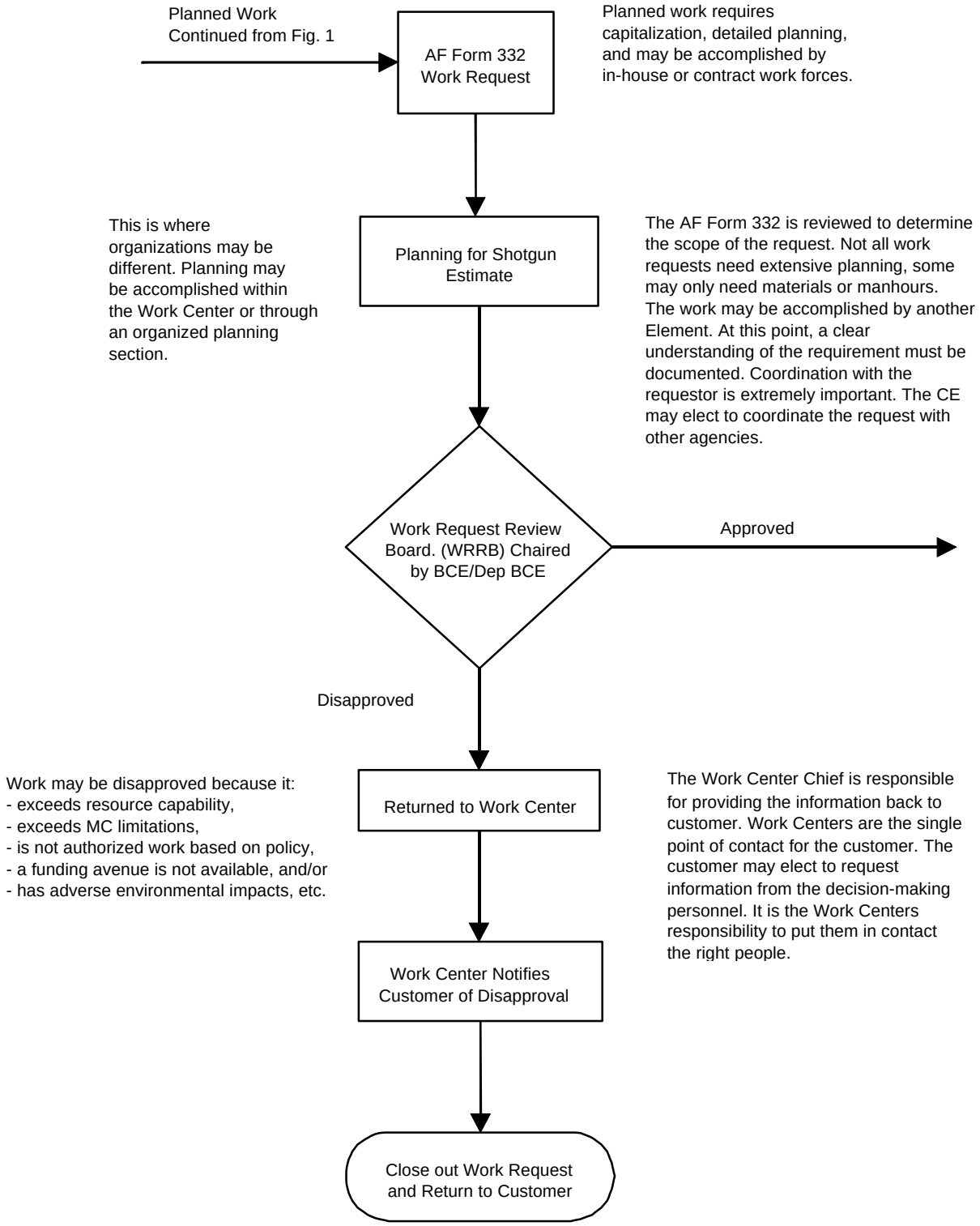


Figure 2. Direct Scheduled and Routine Work Requests (continued)



Work orders go to the appropriate work center-of-execution for initial evaluation and rough estimate. The Heavy Repair Element manager is usually the focal point for the Work Request Review Board and manages the work orders. If the work order affects the base infrastructure (and almost all do), Maintenance Engineering and Infrastructure Support should evaluate the work order and recommend action. Following the Maintenance Engineering evaluation, the work order should go to the WRRB for final evaluation and approval or disapproval.

4.5.1 Work Order Evaluations

Work orders go through a basic evaluation process upon receipt.

(1) **Is this what they want?** Is this work requested needed? Frequently, the customer requests work based on the desired outcome, rather than what needs to be done to achieve that outcome. For example, a customer requests more fluorescent fixtures in a dropped ceiling. What the customer really wants is more desk lighting. The best solution may be to move the existing fluorescent fixtures above the desks, install task lighting above the desks, or use natural light. The facility maintenance manager and the customer should discuss the request and visit the site to determine what is really needed and how to accomplish it.

(2) **Is this work consistent with long range plans?** What effect will the work have on the infrastructure program? Energy costs, additional HVAC load, roof penetrations, and pavement integrity are usually not priorities for the customer. If the proposed work will affect the infrastructure program, the facility maintenance manager or an engineer should note it, discuss the impact (with costs if necessary), and discuss alternatives with more favorable impact. The engineer may advise disapproval due to the adverse impact.

(3) **Is it redundant?** Is the work duplicating or negating other planned work, especially the work in the long-range plans? The engineers and facility maintenance managers should examine projects in their long-range plans to identify duplicate work. If the work affects a portion of a programmed project, the engineer should note it, discuss the work order impact on the long-term project, and provide a recommendation. Often mission requirements may

drive a programmed project to be executed earlier and is advantageous to the program.

(4) **How should the work be executed?** Is it an in-house work order, a contract project, an IDIQ project, a Simplified Acquisition of Base Engineering Requirements (SABER) project, or a small purchase effort? The cost estimate and type of work will impact this evaluation.

(5) **Approve/disapprove?** Is the work valid? The engineer and facility maintenance manager should recommend approval or disapproval. The decision to approve or disapprove should be made as soon as possible. The engineer spends more time evaluating the effort than the WRRB approval authority and should provide the benefit of that evaluation in a professional recommendation.

NOTE

The work center chief should not recommend disapproval without first discussing with the Facility Maintenance manager and the customer the concerns driving this recommendation. Often, customers facing sensible concerns over their work request will re-examine it and even withdraw it.

Following the program engineer review, the Maintenance Engineer should review the work order with the same questions in mind. Most Maintenance Engineers sit on the WRRB and may face questions concerning their engineers' evaluations. The Maintenance Engineer should develop a recommendation for approval or disapproval. With this coordination, the work order returns to the review process and proceeds to the WRRB.

4.5.2 Work Order Management

Over the years, Base Engineers have looked for more efficient and effective procedures and programs to better manage the work order business. In some cases it was noted that file cabinets full of work requests were maintained, some over three years old! In today's CE environment, these file cabinets of tremendous backlogs of work are too costly. A more business-like approach has been taken to work management. Some MAJCOMs and installations have already successfully adopted some of the following programs to manage work orders.

For many years customers believed CE worked only their own priorities and not the customers. The customers some-

times did not realize that all work CE accomplishes is to maintain, repair, or modify and alter their facilities, as well as, perform maintenance to RPIE. Through the years this perception began to change. BCEs began consulting with their customers to find out what is important to them, establishing regular meetings with the customers, and making them part of the CE community.

Several MAJCOMs have established a means of prioritizing work through work allocation programs. These programs use commanders' input to determine what work CE should accomplish and in what order. The work is accomplished either through a checkbook of available hours or a number of work orders per month by unit or organization. Regardless of the method used, work order programs have helped CE and the base customers in determining what is important, what needs to be accomplished and when, and reducing the excessive backlog of work that CE cannot accomplish. The vehicle for accomplishing this work is either in-house or contracts.

Civil Engineers began looking for alternative methods to satisfy customer requirements to improve the relationship between CE and the base customers. Historically, answers to customers were usually: "the request is in planning," "awaiting materials," or "awaiting scheduling." These excuses were no longer being accepted by the customers. There had to be a more customer-oriented approach to support the customers needs. With the adoption of the Objective Wing and Objective CE Squadron, a change in philosophy and culture was established. Decentralization of the work force required a change to the way business was conducted. The primary purpose of this work order restructuring was to counter manpower reductions; budget constraints; loss of control of the old system, too many active work orders and inactive work orders in the system, and misunderstanding of the priority system.

There are many methods of establishing and executing work order programs. These programs were developed and intended:

(1) to provide equitable support to all base customers,
(2) implement and execute dedicated commitment dates,
(3) work commanders' priorities, and
(4) properly manage the workforce.

A sound program improves the management of all CE resources.

The following is an example of how such a program could work:

(1) group commanders meet with squadron commanders to identify and establish priorities;
(2) CE meets with group commanders and reviews AF 332s to determine method of accomplishment (SABER contract, in-house);
(3) CE and Group CCs establish priority sequence of accomplishment;
(4) CE processes AF 332 and commits funds and manpower when complete; and
(5) priority work is then completed.

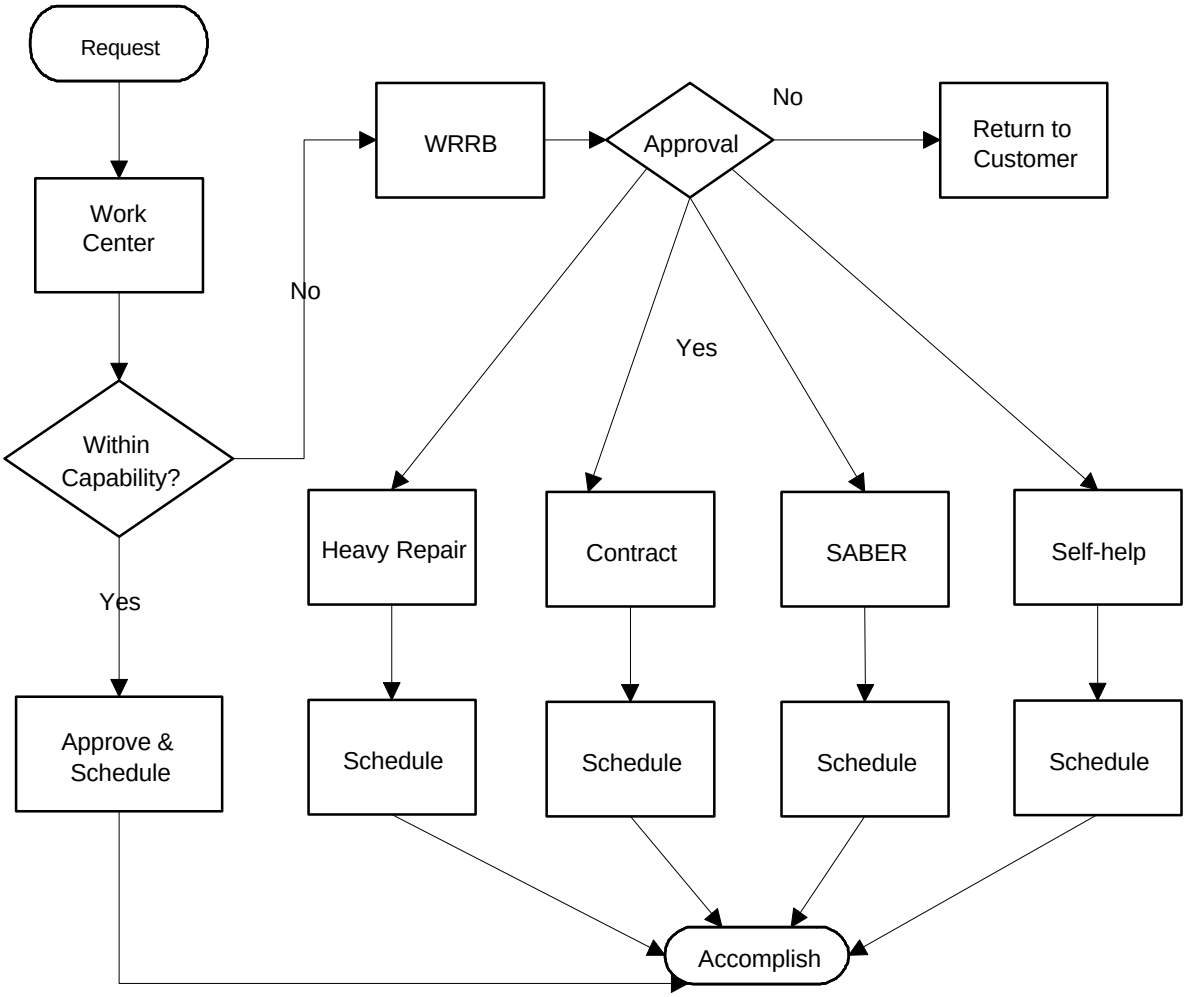
This process, as shown in Figure 2, Flow of a Work Order Program, is important to facility maintenance managers who have work order programs in place. In some instances, work orders are not accepted unless they have the organization commander's signature with priority assigned. Work is not accepted if the organization's priority allocations are filled; however, exceptions are made for emergencies. The facility maintenance managers must be well versed on how these programs work and be able to provide status and updates to their customers.

4.5.3 Requirement Identification

As a CE community, the need to identify requirements remains, regardless of what type of work order program is in place. Discussion continues on the need to maintain a listing of all requirements and, whether or not, to maintain hard copies. One effective program, using the WIMS system, requires the establishment of an active and inactive file. Active files, designated by an "A," are work orders in the priority work order program. They have received a commander's authorization and an allocation of funds and manpower. This category of work is based on the authorized allocation checkbook of man-hours for that unit or organization. These work orders are work the BCE and Group CCs have requested and fall within the allocation program for accomplishment. All other work orders should be input into the WIMS with a "D" designator. "D" indicates the work is in an inactive file or dummy loaded into WIMS. No hard copy of the AF 332 is retained, except by the requester. Once a work order is approved, the hard copy work request is forwarded to the work center for processing and transferred from the "D" log to the "A" (active files)

log. This method allows a running list of active and inactive work requests for programming and funding priorities.

Figure 3. Flow of a Work Order Program



Chapter 5 Recurring Work Program Support

5.1 Work Program

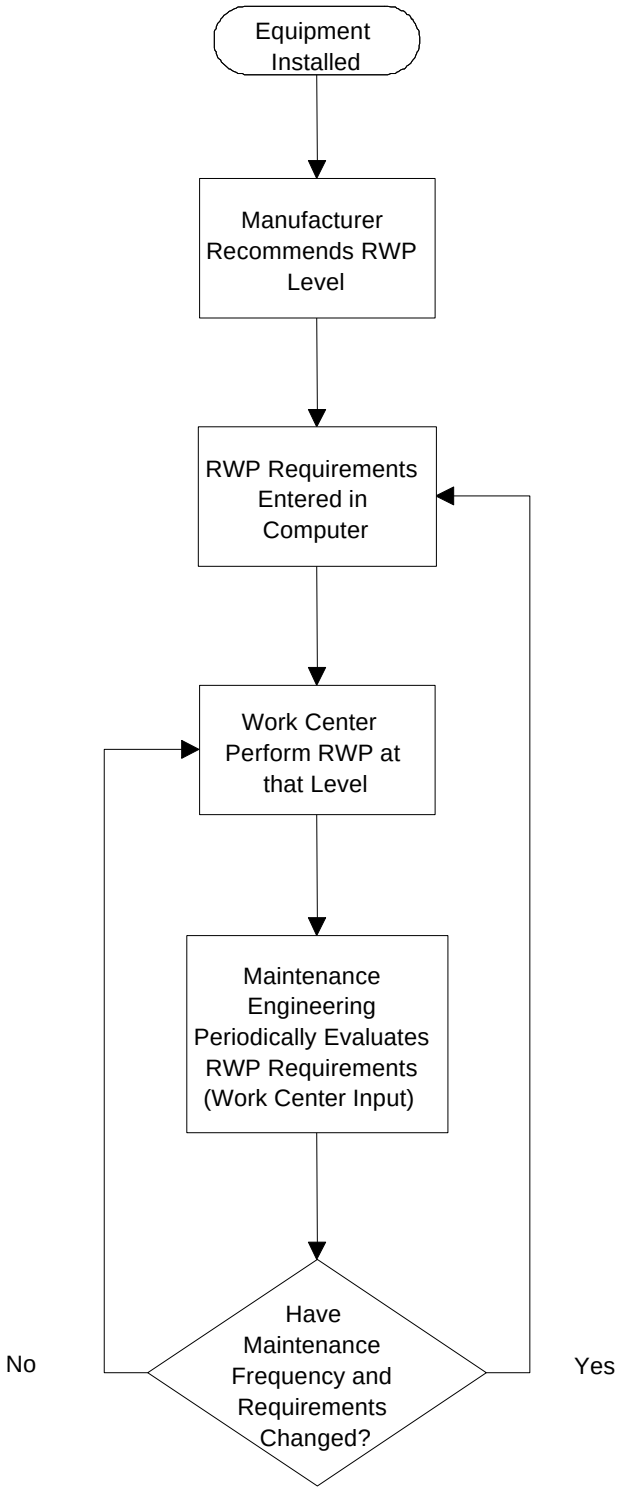
The recurring work program is a mission shared by all sections in the Operations Flight. The Facility Maintenance Element work centers manage and execute the day-to-day program. Material Acquisition maintains the appropriate stock (either in the CE supply store or forward stores/shop stocks) to support the program. Maintenance Engineering oversees the development of the program and periodic assessments of its elements by periodically reviewing the requirements of the recurring work program and making recommendations to improve its effectiveness, efficiency, and manpower requirements. Figure 3, Recurring Work Program Review, illustrates this process for real property installed equipment.

The recurring work program applies to all routine, redundant, recurring work involving real property, real property installed equipment, or systems and other equipment maintained by CE. By definition, its scope and frequency is well known, locations are well established, materials are available or not required, or it's a recurring service. Work includes operations, service work, and preventative maintenance. The scope and level of effort is known.

5.2 Work Analysis

Some RWP will be service- or operations-related. Other work, such as flightline sweeping or snow removal, is a service provided by the horizontal work center of Heavy Repair and typically listed as a work item in the RWP. However, most RWP will be preventative maintenance work, such as periodically replacing belts and filters on HVAC equipment. This type of RWP often requires Maintenance Engineering analysis support and, therefore, a close working relationship among all Elements of the Operations Flight is desired. For additional discussion on analysis of the recurring work program see Vol. 2 Maintenance Engineering.

Figure 4. Performing Recurring Equipment Maintenance



WILLIAM P. HALLIN, Lt General, USAF
DCS/Installations and Logistics

Attachment 1 Glossary of References and Supporting Information

References

AFI 32-1001 *Operations Management* (replaces AFI 32-1031)
AFI 32-1110, *Planning and Programming Real Property Maintenance Projects Using Appropriated Funds* (replaces AFI 32-1032)

Abbreviations and Acronyms

3E5X1	the engineering AFS
A/C	air conditioning
A-76 Action	Process, under OMB Circular A-76, under which core responsibilities are contracted
AAFES	Army and Air Force Exchange Service
A&E	architect and Engineer - most commonly referring to the contract firms
ABO	air base operability
ACES	Automated Civil Engineer System
ADD	agreed delivery data
AF/CE	Air Force/Civil Engineer
AFCESA	Air Force Civil Engineer Support Agency, Tyndall AFB FL
AFFF	Aqueous film forming foam - the fire-fighting agent often used in hanger systems
AFI	Air Force Instruction
AFIT	Air Force Institute of Technology, Wright Patterson AFB OH
AFMAN	Air Force Manuals
AFMS	Air Force Manpower Standard
AFO	Accounting & Finance Office
AFP	Air Force Pamphlets
AFS	Air Force specialty (formally called AFSC - AFS Code)
AKA	also known as
BBE or BEE	Base Bio-Environmental Engineer
BCAS	Base Contracting Acquisition System
BCE	Base Civil Engineer
BCP	Base Comprehensive Plan (replaced by the Base General Plan)
BEAMS	Base Engineer Automated Management System - an older CE database system
BPA	blanket purchase agreement
BTU	British thermal units - a measurement of energy
BUR	built-up roofing system
CA/CRL	custodial account/custody receipt listing
CADD	computer aided design and drafting, a computer-based program that organizes drafting and design functions to produce high-quality facility drawings.
CALT	contracting administrative lead-time
CAS	Condition Assessment Survey, a DoD program to objectively assess and evaluate DoD facilities for developing CAS
CATV	cable television
CBA	cost/benefit analysis
CDR	contract deficiency report, a report of substandard contract performance

CDS	career development center
CE	Civil Engineer
CEC	office symbol for the CE Engineering Flight
CEMAS	Civil Engineer Material Acquisition System
CFA	Commanders' Facility Assessment (replaced by Facility Investment Metric)
CFETP	career field education and training plans
CIAPS	Customer Integrated Automated Procurement System
CMSgt	chief master sergeant
COCESS	Contractor Operated Civil Engineer Supply Store
CSL	CEMAS Stock List Number
CSU	customer service unit
CWM	cost work order materials
CWON	Collection Work Order Number
DC	direct current
DDC	direct digital control
DIFM	due in from maintenance
DIN	do it now
DIRK	direct input reject key
DoD	Department of Defense
DOLI	date of last inventory
DOLT	date of last transaction
DPMIAC	Defense Pest Management Information Analysis Center
DRMO	Defense Reutilization Marketing Office
DSWO	Direct Scheduled Work Order
DVEP	Disease Vector Ecology Bulletins
ECIP	Energy Conservation Investment Program
EDD	estimated delivery date
EEIC	Element Of Expense/Investment Code
EMCS	Energy Management Control System
EMIS	Environmental Management Information System
EOD	end of day
EPS	Engineering Performance Standards
ESPC	Energy Savings Performance Contract
FAD	force activity designator
FAR	federal acquisition regulations
FCA	fund cite authorization
FEDLOG	Federal Logistics Data
FEMP	Federal Energy Management Program
FIM	Facility Investment Metric
FOB	found on base
FSC	Federal Supply Class
FSDC	Fire Safety Deficiency Code
GIS	graphic information system, a linking of database data with CADD drawings
GOCESS	Government Operated Civil Engineer Supply Store
GOQ	general office quarters
GSA	General Services Administration

HM	hazardous material
HMP	Hazardous Material Pharmacy
HVAC	heating, ventilation, and air conditioning
ICS	Infrastructure condition standard
IDIQ	indefinite delivery/indefinite quantity, a type of contract
IEC	Issue Exception Code
IEU	individual equipment unit
IL	identification list
IMPAC	International Merchant Purchase Authorization Card
IPM	integrated pest management
IWT	industrial water treatment
LP	local purchase
M&R	maintenance and repair
MADJ	Adjective File
MADT	Adjective Type File
MAJCOM	Major Command
MC	minor construction
MCP	see MILCON
MCPAM	man-hour ceiling/priority analysis method to prioritize RWP work items
MCRL	master cross reference list
MDF	material documentation folder
MFH	military family housing
MILCON	Military Construction Program (previously known as MCP)
ML-C	management data listing
MNAD	Noun Additional Description File
MNON	Noun File
MRA&C	maintenance, repair, alteration, and condition
MRL	material requirements list
MRTSUD	Rejected Transaction Suspense Program
MSDS	material safety data sheet
MSYN	Noun Synonym File
MTL	master task list
NAF	non-appropriated funds
NIIN	National Item Identification Number
NIST	not-in-stock ticket
NPI	non pre-priced
NPL	non-price listed
NSN	National Stock Number
O&M	operations and maintenance
ODBC	open database connectivity, a structure enabling communications between data-bases
OPR	office of primary responsibility
OSD	Office of the Secretary of Defense
PCB	polychlorinated biphenyl, a hazardous additive to some oils used as coolants in transformers
PCN	Product Control Number

PD	pier delivery
PDO	Publishing Distribution Office
PFMR	Project Funds Management Record
PHM	potentially hazardous material
PIIN	Purchase Information Identification Number
PM	preventative maintenance
PMD	property movement document
PO	purchase order
POC	point of contact
POF	Purchase Order File
POL	petroleum, oil and lubricants, AF term for organizations and systems that manage any fuel or oil-based materials
PWS	performance work statement
QAE	quality assurance evaluators, QAEs monitor service contracts.
QASP	quality assurance surveillance plan
QUP	quantity unit pack
RAC	risk assessment criteria
RC	responsibility center/cost center
RCCC	Responsibility Cost Center Code
RDD	required delivery date
RFQ	request for quote
RHA	residue holding area
RIEI	Roofing Industry Educational Institute
RIF	reduction in force
RMS	recurring maintenance schedule
RPIE	real property installed equipment, equipment CE physically installs and maintains as part of a facility
RVP	reverse post
RWP	recurring work program
SABER	simplified acquisition of base engineering requirements, IDIQ contract that performs minor construction and repair.
SBSS	Standard Base Supply System
SFM	specialty function manager
SHC	self-help center
SMART	structural maintenance and repair team
SMSgt	senior master sergeant
SOQ	senior officer quarters
SOW	statement of work
SQL	structured query language, a method for communicating between databases
SSAN	Social Security Account Number
TA	Tables of Allowances
TIB	Technical information bulletins
TIN	turn-in
TLQ	temporary lodging quarter
TO	technical order
UGT	upgrade training

UJC	Urgency Justification Code
UND	urgency of need designator
URMT	utility rates management team, an AFCESA team to support base utility engineers
WIMS	Work Information Management System, the current CE database management system
WO	work order
WRRB	Work Request Review Board (also known as WORB, Work Order Review Board)

Terms

1219 visit -- The periodic facility visit performed by a work center to identify routine work requirements and schedule a follow-on repair visit by the work center crafts. Known as the 1219 visit due to the use of the AF Form 1219, Base Civil Engineer (BCE) Multi-Craft Job Order.

acquired land -- Land obtained from any private or public source other than land withdrawn from the public domain.

acquisition -- Obtain, use, or control real property or an interest in real property by purchase, condemnation, donation, exchange, leasing, revestment, or recapture.

Air Force proponents -- Air Force major command, installation, other component or other agent designated to act on behalf of the Air Force, responsible for initiating or carrying out the proposed real property acquisition.

annexation -- A procedure by which a municipality; such as a city, town, or village, incorporates Air Force land within the corporate limits of the municipality. Procedures vary depending on state law.

as-builts -- Original facility design drawings (or replacement master drawings or the master computer aided design and drafting (CADD) drawing file). Civil Engineer units use these drawings to document all as-built conditions of a facility and modifications as they occur over the years.

Base Civil Engineer -- Senior-ranking base engineer in the Civil Engineer unit.

blanket purchase agreement (BPA) -- A simplified method of filling anticipated repetitive needs for small quantities of supplies. This agreement is designed to reduce administrative cost in making small purchases by eliminating the need for issuing individual purchase documents. The government is obligated only when a call is placed against it.

blue-line drawings -- Copies of the original as-built or design drawings used for daily work.

BPA call -- An action initiated by a Civil Engineer Material Acquisition System (CEMAS) buyer or an authorized individual to order supplies from firms that have been awarded a blanket purchase agreement.

CEMAS store work order -- A special collection work order (usually work order 00011) with shop code, cost center, cost account code, and EEIC agreed upon to be used to collect the cost of material purchased and maintained in the store.

CEMAS monitor -- The chief of Material Acquisition or designated representative who will interface between Base Contracting, Base Supply, and Accounting and Finance.

CEMAS stocked items -- Items identified or approved by the chief of Material Acquisition to be stocked for recurring demands. Approval is based on demand history, funding availability, and storage limitation.

CEMAS stock list (CSL) -- A unique number assigned to individual items listed in the noun dictionary.

certificate of necessity -- A written statement, signed by Deputy Assistant Secretary of the Air Force for Installation (SAF/MII), which certifies it is necessary (for reasons vital to the national security) for the Air Force to exceed the statutory cost limits established in AFI 32-9001 relative to annual rent or alterations, improvements, and repairs to leased buildings.

cession -- Ceding or yielding by a state of its legislative jurisdiction over government-controlled real property to the federal government.

clearance easement -- The right to remove or prevent obstructions rising into the airspace. Examples are easements over areas beyond the ends of an airfield runway (approach or departure clearance zones). Also, easements adjacent to the sides of the runway (transition zones), clearance for approach lighting sites, communication sites, etc. A clearance easement, specifically, does not include the right of aircraft passage over the land, so the landowner may separately recover for loss of value to his or her land due to low and frequent flights of aircraft.

commercial facilities (industrial-type) -- Air Force-owned and -operated facilities housing a function that could be done by private industry, such as motor repair work centers, laundries, bakeries, ice cream manufacturing plants. (Exceptions are base exchanges, commissaries, and other non-appropriated fund activities.)

condemnation -- A judicial proceeding started by the government through the Department of Justice for the purpose of exercising its right of eminent domain. Condemnation results in passage of title and land to the government with or without the consent of the landowner, but with just compensation paid to him or her.

consideration -- Compensation or an equivalent (such as money, material, or services) that is given for something acquired or promised. This may be the appraised fair market value of the real property or may include protection of the real property against loss by fire, water, or other causes, or any mutually agreeable arrangement that does not conflict with governing statutory limitations.

core requirements -- Process oriented descriptions which describe the tasks needed to support Maintenance Engineering.

declaration of taking -- A pleading filed with a federal court of law in a real property condemnation proceeding whereby, on filing the pleading, together with deposit of estimated "just compensation" in the court, the real estate interest is vested in the government.

declaration of excess -- A narrative description of real property that is no longer required for foreseeable Air Force missions. The declaration contains an identification of the land, type of governmental real estate interest, facility inventory information, recommended disposal dates, re-use rights, and services, obligations, and outgrants outstanding (see AFI 32-9004).

direct scheduled work order -- Emergency or essential work generally not requiring detailed planning, also known as job orders.

direct digital control -- Any control system (HVAC, alarms, lighting, or otherwise) using entirely solid-state (digital) components.

District Engineer -- One of the several Division Engineers, US Army Corps of Engineers, who supervise the activities of certain District Engineers and are the intervening management level between the Chief of Engineers and District Engineers (e.g., US Army Engineer Division, North Atlantic, CENAD).

easement -- The right to use the land of another for a specified purpose. Usually, the owners of the land continue in possession and may use it as long as such use does not interfere with the purpose for which the easement was granted. An easement may be acquired for a specific term or in perpetuity. An easement differs from a license because: the privilege granted usually cannot be withdrawn during its term and it is considered to be a permanent interest in the property if the term exceeds one year.

emergency work -- Work that must be accomplished immediately.

eminent domain -- The right of the government to take private property for public use upon payment of just compensation.

Energy Conservation Investment Program (ECIP) -- A Military Construction (MILCON)-funded program primarily intended for accomplishing energy conservation retrofits of existing buildings. It includes construction of new, high-efficiency energy systems and modernization of existing systems. ECIP is an OSD centrally-managed program.

Energy Savings Performance Contract (ESPC) -- Contracting with a private sector company for completion of energy audits and installation of energy conservation projects. This provides a method to acquire energy conservation projects with no AF resources and without payment if savings do not result.

Energy Management Control System (EMCS) -- The civil engineer energy control system that historically manages heating, ventilation, and air conditioning (HVAC) systems. It differs from direct digital control in that it includes both solid state systems and the older pneumatic systems.

engineers -- Any engineer in Civil Engineer units to include the Base Civil Engineer, the Maintenance Engineer, program engineers, and project engineers.

environmental assessment -- A document, occurring early in the planning process, for evaluating the potential environmental impact of a proposed action. An assessment covers the same topical areas as an environmental impact statement (EIS), but with less detail. An assessment results in a decision that an EIS is necessary, or that the proposed action will have no significant effect, therefore, a finding of no significant impact (FONSI) can be made (AFI 32-7004).

environmental impact statement -- A detailed full-disclosure report which, pursuant to the National Environmental Policy Act (NEPA) of 1969, (42 U.S.C. 4321-4347), identifies and analyzes the anticipated environmental impact of a proposed Air Force action and discusses how the adverse effects of the proposal will be mitigated. It is prepared in two stages: a draft statement which is filed with the Environmental Protection Agency (EPA) and made available to the public for comment and a final statement which is revised to reflect comments made on the draft EIS (AFI 32-7004).

essential work -- Work that cannot wait for the next 1219 visit.

expanded clear zone easement -- The right to prohibit all uses of land, within 3,000 feet of the runway threshold and extending 1,000 to 1,500 feet on each side of the runway center line extended, that are incompatible with or could impede, aircraft operations. For additional guidance see AFI 32-7003.

facility investment metric (FIM) -- An Air Force facilities requirements identification program to assess facilities based on mission priority; used to develop funding priorities.

Federal Energy Management Program (FEMP) -- An OSD, centrally-managed program for projects less than $300K. Projects accomplish energy conservation retrofits of existing buildings or new construction plus energy audits, designs and metering programs. It includes construction of new, high-efficiency energy systems and modernization of existing systems.

fee ownership -- Title to real property belonging to a person or the government where full and unconditional ownership exists. Such ownership does not necessarily include mineral rights.

floodplain -- The 100-year floodplain is the lowland area adjoining inland and coastal waters, including flood prone areas of offshore islands that would be inundated by the base flood. The critical actions (or 500-year) floodplain is the area that would be inundated by a 500-year flood. (See AFI 32-7003.)

functional squadron -- Pre-1992 squadron structure, functionally oriented, it collocated like-functions and distribution portions of the missions and objectives to these functional shops.

general purpose space -- Space in buildings and associated land under the assignment authority of the General Services Administration (GSA) which GSA has found to be suitable for use by federal agencies, generally. The following categories of space are excluded: space in any building in a foreign country; space in any building on the grounds of a military or Coast Guard installation; space in airports; and special purpose space, as defined in GSA Federal Property Management Regulations (41 CFR 101, subpart 101-18.104-1).

grantee -- One to whom a grant is made.

grantor -- The person by whom a grant is made; a transferor of property.

GSA reimbursables -- These are special services, beyond the standard levels of service normally provided by GSA, for which the Air Force must reimburse GSA.

GSA rent -- Formerly called "standard level user charge (SLUC)," a rate charged by GSA for assigned space in government-owned or -leased property for which GSA has the assignment responsibility. The user charge approximates commercial charges for comparable space and services.

GSA space -- Space in buildings owned or leased by GSA and assigned to an Air Force or other federal government activity. This space includes land incidental to the use of the space.

hazardous substance -- This term is defined in CERCLA, 42 U.S.C. 9601 (14). For the purposes of this handbook it includes petroleum, petroleum products, oil, and lubricants (POL).

holding area -- A storage area for work order materials awaiting scheduling.

industrial facility -- Any Air Force -owned, -leased, or -controlled real property facility which is used by a contractor for the purpose of fulfilling government research, development, test, evaluation, production, maintenance, or modification contracts or for the storage of production machinery and equipment in support of such activity.

infiltration and inflow (I/I) -- Amount of water that seeps into a sanitary or storm sewer system, increasing the load on the fixed capacity pipes and treatment systems downstream.

ingrants -- Documents such as licenses, leases, permits, temporary easements, foreign base rights agreements, and treaties, under which the Department of the Air Force acquires an interest in, or control of, real property in less than fee ownership.

jurisdiction -- See legislative jurisdiction.

lease -- A conveyance of exclusive possessory interest in real property for a specified term in return for payment of rent or other consideration to the owner.

legislative jurisdiction-- This term, as used in this instruction in connection with a land area, means the power and authority of the federal government to legislate and to exercise executive and judicial powers within the area.

lessee -- One who possesses the right to occupy real property under a lease.

lessor -- One who holds title to, and conveys the right to use and occupy, a property under a lease.

license -- A privilege that can be withdrawn at will, to use or pass over a licensor's real property for a specific purpose (e.g., right-of-entry for survey and exploration, right-of-entry for construction, tree topping). Licenses merely confer a privilege to occupy real property at the sufferance of the owner. Licenses granted to other federal agencies are called permits.

life-cycle cost -- Primary criteria to be used for design (mandated by the Department of Defense); criteria of analyzing the cost over the life span of a component or system to ensure all costs are used (purchase prices, construction costs, maintainability, efficiency, reliability, etc.).

long-range plan -- Multi-year plan for projects to support a specific infrastructure element, originally termed “5-year Plan,” many bases and commands have converted to “6-year Plans” to match the two-year programming cycle.

maintainability -- Characteristic of a system describing the ease or frequency of maintenance, highly maintainable systems cost less to maintain.

maintenance engineer -- Chief of Maintenance Engineering.

MicroPaver -- Automated system used to inventory and analyze pavements.

mobilization -- The process by which the Armed Forces or part of them are brought to a state of readiness for war or other national emergency. This includes activating all or part of the Reserve Components as well as assembling and organizing personnel, supplies, and material.

National Capital Region (NCR) -- For purposes of this instruction only, a region encompassing the District of Columbia; Montgomery and Prince George's Counties in Maryland; Arlington and Fairfax, counties in Virginia; and the cities of Alexandria, Fairfax, and Falls Church in Virginia.

nonindustrial facility -- A unit of real property (other than DoD real property), including improvements. Nonindustrial facilities include hotels, motels, resort facilities, educational institutions, hospitals, office buildings, and other real property that can be used for military purposes. These type of facilities are not used or suitable for production or maintenance of materials, munitions, equipment, supplies, goods, and other products for military or civilian use ocean terminals.

non-MRL items -- Items not included in an established material requirements list (MRL). Most Contractor Operated Civil Engineer Supply Store (COCESS) contracts require the item be added to the MRL before the contractor provides the item.

non-pre-priced items (NPI) -- An item obtained for Air Force use by a COCESS contractor for which there was no prior solicited and agreed costs.

noun dictionary -- An item record list which includes item description, pricing history, demand data, and inventory data for each item loaded in CEMAS.

offer of gift (donation) -- Voluntary offer to transfer or convey to the government an interest in real property without payment or consideration of any kind by the government (AFI 51-601).

objective squadron -- Post-1992 squadron structure, objective-oriented, it purposes to collocate all functions necessary to support a mission or objective.

operations specialists -- The Air Force specialty created to support the scheduling and controlling of the Civil Engineer work forces; also known as work force manager, controller, triple-nickel, production controller, and scheduler.

option to purchase -- A contract whereby the owner of the real property gives the government the right to acquire an interest in the property at a stated price during a specified period of time. An offer to sell property, unsupported by any consideration, is not considered an option, and it may be withdrawn at anytime (10 U.S.C. 2677).

outgrants -- Documents such as leases, licenses, easements, joint-use agreements, and other agreements (including use agreements) under which the government's interest in, or control of, real property, as exercised through the Department of the Air Force, is modified by conferring rights therein to another government agency, nonfederal entity (such as a state or local government), or a private party (for such use as grazing livestock). (See AFI 32-9003.)

overhires -- Non-permanent employees hired to fulfill a specific purpose who does not fill an authorized position on the unit manning document, but is paid from civilian pay accounts and counts against the unit work-year ceiling

palace acquires-- Apprentice engineers hired by Air Force Personnel Center and managed on a central manning document; Major Commands and bases commit to a three-year training program and final job placement within the command

permit -- A nonpossessory right of exclusive or nonexclusive use of real property. When granted to a party other than a federal agency, it generally covers a one-time use and is called a "license." However, the term also is used to describe an authorization to use property under the jurisdiction of one government agency by another for a definite period. These two uses of the term must not be confused.

pre-priced items -- These are commonly used items where prices have been previously determined. This is basically what the COCESS contracts have been awarded on. The contractor agrees to provide particular items at a specified price.

pre-priced blanket purchase agreement -- Pre-negotiated BPAs established with vendors that identify specific items to be purchased at specific prices for a specific period of time. These are primarily used to reduce administrative cost and buyer time for purchasing high usage items such as CEMAS store stock.

preventative maintenance -- Recurring work performed to safeguard and/or extend the efficient and effective lifespan of real property, RPIE, or other equipment items.

program engineers -- Engineers of Maintenance Engineering, so termed because they manage infrastructure programs.

project engineers -- Engineers of the Engineering Flight, so termed because they manage projects (design and construction).

project -- As related to real estate acquisition activities, a project is a real property acquisition action, or related actions, at an Air Force installation to fulfill a known requirement. Related real property actions that constitute a complete project are processed simultaneously. (For example: The acquisition of land for an ammunition storage project usually involves the acquisition of fee ownership for the land area used to construct storage facilities and restrictive easements over an adjacent safety area.)

public domain -- Land originally acquired by the United States from foreign governments and which has never left United States ownership. It is administered by the Department of the Interior.

public lands -- Any land and interest in land owned by the United States within the states and administered by the Secretary of the Interior through the Bureau of Land Management without regard as to how the United States acquired ownership. The term excludes lands located on the outer Continental Shelf and lands held for the benefit of Indians, Aleuts, and Eskimos (43 U.S.C. 1702 (e) (see withdrawn land).

purchase request abstract -- CEMAS-generated LP requisition document used to request purchase of BCE items by the buyers.

purchase order -- A document authorizing a vendor to deliver BCE materials.

real property -- Lands, buildings, structures, utilities systems, improvements and appurtenances thereto. Includes equipment attached to and made part of buildings and structures (such as heating systems), but not movable equipment (such as plant equipment).

real estate directive -- A request to another federal agency (e.g., Office of the Chief of Engineers, US Army Corps of Engineers, Department of the Army or Naval Facilities Engineering Command, Department of the Navy or Bureau of Land Management, US Department of the Interior) to act on a real estate matter on behalf of the Air Force.

real estate -- See real property.

recurring work -- Routine, redundant, recurring work involving real property, real property installed equipment (RPIE), or systems and other equipment maintained by CE; scope and frequency is well known, locations are well established, materials are available or not required.

red-line drawings -- Marked-up drawings (typically blue-lines) indicating changes to facilities and as-built conditions, used to update as-built drawings.

release -- See CERCLA, 42 U.S.C. 9601 (22).

reliability -- Characteristic of a system that describes its anticipated lifespan and performance.

rent, nominal -- A rental consideration of a token amount in money or services. Generally, it involves a rental payment of $1.00 per year. Nominal rental also means a consideration completely unrelated to the actual or fair market value of the leased property.

request and authority to cite funds -- Base Contracting is provided a quarterly dollar target against which Base Civil Engineer local purchase items are obligated. The availability is certified by Accounting and Finance and the target amount is administered by Base Contracting. The Civil Engineer Funds Management Section should provide a complete AF Form 616, Fund Cite Authorization, to Base Contracting no later than the first working day of the quarter.

residue holding account -- An account for maintaining accountability of excess material after completing a work order.

restrictive safety easement -- The right to restrict the erection of habitable buildings, the congregation of people, or other activities within a specified safety clearance distance of munitions storage areas, armed aircraft and explosives-related facilities (see AFI 91-409).

retrocession -- The act of giving back to a state all or part of the federal legislative jurisdiction formerly enjoyed by the government.

right-of-way easement -- The right to pass over the land of another for a specific purpose. Such use could be for constructing a road, installing pipelines, pole lines, or telephone cables, etc.

right of entry -- The temporary right to enter on real property for a specified purpose without acquiring any estate or interest in it.

service contract -- A contract for nonpersonal services, executed under the Armed Services Procurement Act of 1947, where the contracting party agrees to perform some service for the Air Force and the Air Force agrees to pay for such service. In performing the service, the contractor may use real property in which he or she has an interest, even to the extent of permitting the Air Force to go on the property in a nonexclusive manner.

SLUC -- Standard Level Users Charge (see GSA rent).

stay-in-schools -- Temporarily hired employees who work a portion of the work week and attend school the rest of the week; are overhires and do not count against a manning document, pay comes from paid civilian pay and hours count against the unit work-year ceiling

space, special purpose -- Space in buildings not under assignment responsibility of the General Services Administration, including land incidental to the use thereof, that is fully or predominantly used for the special purposes of an agency having custody of such space and generally not suitable for use by other agencies. Examples of such space include computer centers, hospitals, laboratories, mints, penal institutions.

space, general purpose -- Space in buildings under assignment responsibility of the General Services Administration, including land incidental to the use thereof, that the GSA has determined to be suitable for use by federal agencies generally, **except**: space in buildings on installations of the Department of Defense or the Department of Transportation (US Coast Guard facilities) and any space designated by the GSA as special purpose space in 41 CFR 101, subchapter D, subpart 101-18.104-1.

stock record account number (SRAN) -- An accountable stock record account established for the Civil Engineer Material Acquisition Systems (CEMAS).

storage -- The holding of hazardous substances for a temporary period prior to the hazardous substances being either used, treated, transported, or disposed.

subordination agreement -- An agreement whereby the owner of a real estate interest (including subsurface oil, gas and mineral rights) agrees to suspend or limit the exercise of all or part of his or her ownership rights under specified terms and conditions (usually to avoid interference with governmental use of the surface or operations).

suspension agreement -- Suspension by lease of an individual's grazing or mineral rights in public land or state-owned lands.

urban centers -- These are the cities and standard metropolitan statistical areas (SMSA). General Services Administration is the sole leasing authority for obtaining general purpose space in these areas.

value (current, fair, and estimated) -- As used in this regulation, these terms mean current fair market value or current fair market rental value, as appropriate. Fair market value is the amount in cash, or on terms reasonably equivalent to cash, for which the property would be sold by an owner, willing but not obliged to sell, to a purchaser who desires, but is not obliged, to buy. Fair market rental value of a property is the amount that, in a competitive market, a well-informed and willing lessee would pay and that a well-informed lessor would accept for the use and occupancy of the property for a particular term.

vault -- Storage location of base as-built and Base Comprehensive Plan drawings, so termed because many bases originally stored these drawings in a vault for physical security.

wetlands -- Areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally-saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs and similar areas such as mud flats, natural ponds, potholes, river overflows, sloughs, and wet meadows. Wetlands may be, but are not necessarily, located in floodplains (AFI 32-7005).

withdrawn land -- Public land that has been set aside or designated for a specific public purpose, such as a national park, wildlife refuge, or national defense use. Withdrawal of public lands generally has the effect of segregating such land from lease, sale, settlement, or other dispositions under the public land laws.

work centers -- Civil Engineering Operations maintenance teams organized to maintain and repair base facilities and infrastructure systems. Depending on the installation, these Centers can be classified as either shops, zones or a combination of both..

work orders -- Work requiring detailed planning or capitalization of the real property records.

Attachment 2 Core Requirements

PROCESS ORIENTED DESCRIPTION
FACILITY MAINTENANCE

A1D.1. RECEIVES TRAINING:
A1D.1.1. RECEIVES CONTINGENCY TRAINING:
A1D.1.1.1. RECEIVES CATEGORY 1, CLASSROOM TRAINING.
A1D.1.1.2. RECEIVES CATEGORY 2, HANDS-ON TRAINING.
A1D.1.2. RECEIVES CERTIFICATION TRAINING.

A1D.2. PROVIDES LOGISTIC SUPPORT:
A1D.2.1. PROVIDES CUSTOMER SUPPORT:
A1D.2.1.1. RECEIVES AND PROCESSES WORK REQUEST.
A1D.2.1.2. PROVIDES JOB STATUS.
A1D.2.1.3. TRAINS FACILITY MANAGER.
A1D.2.2. OPERATES FORWARD SUPPLY STORE.

A1D.3. PERFORMS SYSTEM OPERATION: Performs unmanned heat plant surveillance.

A1D.4. PERFORMS REAL PROPERTY MAINTENANCE: Performs scheduled maintenance (maintains HVAC system, electrical system, plumbing system, and structural system).

A1D.5. PERFORMS REAL PROPERTY REPAIR:
A1D.5.1. PERFORMS EMERGENCY REPAIR:
A1D.5.1.1. REPAIRS HVAC SYSTEM.
A1D.5.1.2. REPAIRS ELECTRICAL SYSTEM.
A1D.5.1.3. REPAIRS PLUMBING SYSTEM.
A1D.5.1.4. REPAIRS STRUCTURAL SYSTEM.
A1D.5.1.5. PERFORMS EMERGENCY ASBESTOS REMOVAL AND CONTAINMENT.
A1D.5.2. PERFORMS ROUTINE REPAIR:
A1D.5.2.1. REPAIRS HVAC SYSTEM.
A1D.5.2.2. REPAIRS ELECTRICAL SYSTEM.
A1D.5.2.3. REPAIRS PLUMBING SYSTEM.
A1D.5.2.4. REPAIRS STRUCTURAL SYSTEM.

A1D.6. PERFORMS REAL PROPERTY MODIFICATION AND ALTERATION:
A1D.6.1. ACCOMPLISHES MINOR PROJECT.
A1D.6.2. SUPPORTS SELF-HELP PROJECT.

Attachment 3 Building Manager's Handbook

This document is designed to be a handy reference guide to help you perform your duties as building manager. It gives procedures to follow in executing daily duties and should be made available for quick reference. Refer to it often.

1. Orientation

Your organization commander is responsible for the care, custody, and protection of assigned real property. As the building manager, you are their representative and official contact whenever your building needs base civil engineering (BCE) work. You should be briefed by someone in BCE on your duties and responsibilities when you are first assigned as a building manager. Thereafter, you should receive an annual refresher briefing announcing any changes in BCE operations which may affect you. This handbook provides guidance only and is designed to make your job easier. If you would rather devise another way to accomplish the same result, do so.

2. Assignment

All facilities at this installation are assigned to individual unit commanders, typically by action of an installation-level Facilities Board or Space Resources Allocation Panel. The unit commander assumes the responsibility for all facilities assigned to the organization and the Real Property Installed Equipment (RPIE) therein.

a. The unit commander designates, in writing, an officer, senior noncommissioned officer, or civilian of equal rank as primary and alternate building manager for each facility assigned to the organization. Building managers should have at least 18 months retainability at the time of appointment to lessen the impact of changes on all affected personnel.

b. In multipurpose facilities, the major user should be assigned as the primary building manager. Any other organization using a portion of a multipurpose facility will be allowed to appoint an alternate building manager for its area. Alternates can process actions with the BCE, but should coordinate with the primary building manager. By doing this, the primary building manager will be able to keep track of what is planned and being accomplished in the building or buildings. If you are the building manager of a tenant organization on your base, the local BCE provides your support. In your case, a copy of the host-tenant agreement with the BCE should be on file in the organization. If you cannot find a copy, call the BCE Real Property section for assistance. The host-tenant agreement will tell you about support you can expect from civil engineering. Talk to people in the Customer Service Unit (CSU) if you have any questions or problems.

3. Civil Engineering Overview

a. Civil Engineering is essentially a service organization. Its primary purpose is to:

(1) Support the mission by providing utilities, maintenance, and repairs.
(2) Make alterations to existing facilities.
(3) Construct new facilities.
(4) Provide fire protection.

b. Keep in mind, however, that while the MISSION always comes first, PEOPLE are a most important ingredient to accomplish this mission. Civil engineering will always try to be responsive to your requirements. There are two major ways that work is accomplished in your building; by a contractor or by the BCE. Although you will be most involved with the work that is accomplished by the BCE a brief discussion of contract work methods is presented here.

4. Contract Funding Avenues

The law requires the BCE to use different funding categories for construction, repair, and maintenance; each with its own requirements and restrictions. The first two, minor construction and maintenance and repair, are controlled no higher than major command (MAJCOM) and done rather quickly. The Military Construction Program, Emergency Construction, and foreign construction programs require a much longer lead time than locally controlled programs but provide much greater funding and construction flexibility. In all cases, you, the building manager, identify the work required; civil engineers will identify the appropriate funding source. For contract work, the base facility committees review the projects and set overall priority. You need to make sure your members on the committees know the requirement for your project. The BCE will prepare any additional paperwork required (DD Form 1391, FY - Military Construction Project Data) to request approval for contract work and design the project. Make sure you or another expert from your organization attend the design review conference to verify the plans entail the facility work you requested.

a. Minor Construction (MC). These projects are funded from operations and maintenance (O&M) funds. The law limits MC Projects to $500,000. These funds must be used to alter facilities, whether moving a structural wall, adding on to the building, extending the utility lines, or adding a driveway.

b. Maintenance and Repair (M&R). These projects are funded from O&M funds. The MAJCOM's approval authority for maintenance is unlimited. Repair approval authority is limited to $3 million as long as the combined cost of all construction proposed for a facility does not exceed 70 percent of its replacement value.

NOTE

Conjunctive projects, combining MC and M&R are possible but identify the MC portion separately. For both MC and M&R, the building manager should initiate the project by submitting an AF Form 332, BCE Work Request.

c. Military Construction Program (MILCON). Construction projects over $500,000 or large maintenance and repair projects ($3 million or greater) are funded through MILCON. You must identify to Congress where every dollar is going to be spent before your project can be approved and funded.

d. As the building manager, you will deal with various BCE functions: CSU, Service Call, Fire Protection, Energy Management, Engineering, and Real Property. Of most importance to you is the CSU, the single point of contact between you and the BCE. The CSU is also the function that reviews and processes your work requirements and helps you monitor the progress of work being done on your building. Not all bases have a central CSU, however. Some civil engineering squadrons work under a "zonal" maintenance concept where the base is divided into several zones. Each zone has a team of craftsmen capable of handling your requirements. You will be given a point of contact (POC) on the zonal team based on which zone your building is in. If you are not sure who your contact is, call the operations branch in civil engineering.

e. In your capacity as building manager you may need to order new or replacement equipment. Before doing either, check with the CSU or your zonal POC. In some cases, work must be done by the BCE BEFORE appliances or equipment can be installed.

f. Learn to plan ahead. For example, request major changes in heating, storm windows, etc., in early spring. Request changes in air-conditioning equipment in late fall to make sure work is completed by early spring. Take into consideration the lead time to procure materials and size of the job when asking for a completion date.

g. Think about major and minor changes someone may want to make to your building. In some cases, commanders or others may want these changes because of personal reasons. You may want to discuss the possibility of a faster, less expensive, or better way to handle this requirement,

h. Due to personnel rotations and mission changes, some requirements may not be necessary by the time work is actually approved and started. Constant communication is necessary to preclude unnecessary work and expenditure of funds.

i. The better you understand BCE and the way they work, the easier your job will become. BCE personnel will be pleased to answer any questions you have about their operation.

5. Service Call

The Base Civil Engineer maintains a 24-hour-a-day, 7-day-a-week capability to respond to emergency conditions:

a. Emergencies. An emergency condition is one detrimental to your mission. If the condition is not corrected immediately, it could result in a major breakdown of the mission with a reasonable expectancy of reducing operational effectiveness. Emergency work is required to provide adequate security to areas subject to compromise, eliminate serious health hazards, prevent serious fire or safety hazards, or protect valuable property and equipment. An emergency will always include, but is not limited to, failure of any utility, fire protection, environmental control, or security alarm system. If your building has loss of heat, steam, gas, liquid fuels, water, or

clogged plumbing (when the entire system is affected), it might be designated an emergency. Failure of a critical air-conditioning system, power failure, or faulty electrical systems are emergencies. If you are not sure if you have an emergency condition ask someone in the Service Call function. The Service Call function will accept notification that an emergency condition exists from ANYONE having knowledge of the condition.

b. Less Than Emergency Situations. The CSU provides a means for processing many requirements that are not classified as a emergency. YOU should be the only one submitting those requirements. If you believe you have an urgent requirement, call the CSU. They will determine whether the work can be completed without a formal written request, special planning, or material support. If possible, the technician will assign your requirement to URGENT service. If your request does not warrant urgent support, it will be assigned ROUTINE processing.

NOTE

Whenever you use the Service Call function, CSU, or your zonal POC, always obtain a control number. Record this number on a log to help monitor work and follow-ups (see paragraph 7.e).

6. Maintenance and Repair (Routine Work)

a. Work required to preserve or restore an existing facility is categorized as maintenance and repair work. Some examples are: repainting, replacing floor tile or light fixtures, and repairing heating systems. Identify these requirements by conducting regular monthly inspections of your building and its RPIE.

b. You will periodically receive a call from the BCE to schedule facility inspections. Use these regularly scheduled visits to check the condition of the utilities, floors, support structures, or various areas of your building. Use these inspections and early identification of deficiencies to keep your building in good condition. You should accompany civil engineering personnel during these inspections. They will show you what to look for and how to identify work requirements.

c. When you request maintenance or repair items (there may be more than one item), fill out AF Form 332. Describe each item of work to be done. If necessary, include sketches or diagrams. A single item of maintenance or repair that does not need a detailed sketch should be called in to the CSU or your zonal POC. As building manager, you will review and coordinate on the request. Send the original and two copies to civil engineering. Keep the customer's copy for your file. After BCE makes a decision about the work you have requested, they will return the status copy of the AF Form 332 and tell you the disposition or status of each maintenance or repair item with a work order number or control number assigned.

d. Use these assigned work order or control numbers for follow-up actions. Note all actions pertaining to your AF Forms 332, from submittal through job completion, in your Building Manager's log. If an occupant of your building has initiated the request for work, please keep that person informed on the latest status.

7. New Construction

a. New construction means building an entire new facility, or modifying, adding to, or otherwise altering an existing building. Some examples are installing new walls or lighting, relocating existing walls or RPIE, cutting doorways, etc.

b. If someone else fills out the AF Form 332 when a facility requires new construction, the building manager must review and the unit commander must sign the form. The AF Form 332 comes in a four part set. The reverse of the form contains instructions for preparation. Read the instructions carefully and follow them completely. Describe the work to be done and include sketches or diagrams and the exact electrical requirements for new equipment. Explain why the work is necessary and when it should be done. The requested work will have to compete with other work and the priority assigned to your request may depend on your justification. The use of "strongly-worded justification" cannot be overemphasized.

c. The BCE will assign one of the following priorities to the work request:

(1) **I. Mission**. Work in direct support of the overall base or tenant unit mission that if not done would reduce operational effectiveness;
(2) **II. Safeguard Life and Property**. Work needed to give adequate security to areas subject to compromise; to eliminate health, fire, or safety hazards; or to protect valuable property or equipment. Also include energy conservation work;
(3) **III. Support**. Work. which supports the mission or prevents a breakdown of essential operating or housekeeping functions; or
(4) **IV. Necessary**. Not qualifying for higher priority.

d. Once you complete and coordinate the work request, send the original and two copies to the CSU or your zonal POC. They will process your request as soon as possible; however, construction work requires more review than maintenance and repair work. Depending upon your request, prior coordination with the fire department for fire hazards, the base bioenvironmental

engineer for health or environmental hazards, the safety officer for safety hazards, or communications for telephone service will speed the process. Remember to complete this coordination BEFORE your AF Form 332 goes to the BCE. If you are not sure who should coordinate, call your CSU or zonal POC. A properly completed form will save you and the BCE valuable time in accomplishing the job.

e. The BCE will review the AF Form 332 for completeness. If validated, it will be assigned a control number. They will return one copy of the form that shows this number in Item 4, with a cover letter that tells you if the request has been approved or disapproved. Record this number and all actions that pertain to your work request, from original submittal to job completion on AF Form 3132, General Purpose, used as your Building Manager's log. Typical headings on the form would include: Control #; Urgency; Date; Description; AF Form 332 Date; Work Complete Date; and Remarks. From then on, use this number when you make work request follow-up calls.

8. Self-help Work

a. Self-help is an excellent way to do some important "people projects" that would normally receive a lower work request priority than you would like. Personnel assigned to your building must be made aware that they MUST OBTAIN BCE approval BEFORE starting self-help projects.

b. This rule applies even if they supply ALL their own labor and materials. The BCE wants to make sure the work is completed properly. It is costly to tear down a wall or newly paneled area if it creates some type of fire or safety hazard.

c. To receive permission to do self-help projects in your building, fill out an AF Form 332. Describe work to be done and include sketches or diagrams. Item 10 of the form gives you a place to list donated resources. Your Self-help Center can assist or direct you on the procedures that are required to obtain materials for self-help.

9. Space Management

If you are the building manager of a complex of shops and offices that belong to several units, this subject should be stressed to all occupants. Any time someone wants to move an office or “swap" areas between two or more units, notify the Civil Engineering Real Property office. You should do this BEFORE any moves are begun because you need the approval of the Space Resources Allocation Panel. Each installation will normally establish a panel or committee so that it may convene periodically for such purposes. Also, upon vacating a building or space, notify the BCE in order to have a joint inspection arranged. Someone from the Real Property office will assist in this inspection. At the time of the inspection, turn in all appropriate keys to the Real Property Manager.

NOTE

To make space management easier, ask for a floor plan of your building. Include in the plan which units occupy what space and keep the plan current.

10. Custodial Services

If there is a contractor who performs custodial services in your building, you could be assigned to monitor the services. Someone from the BCE will be assigned to actually monitor the contract, but they may need you to assist by calling their attention to tasks not properly done or missed, or work done especially well. You, as building manager, are in the best position to know what happens in your building. Make sure building occupants report to you, first, before going directly to the BCE or base contracting with complaints about custodial services.

11. Air Force Suggestion Program

As building manager, any AF Form 1000, Suggestion, that proposes minor building improvements to your facility must be routed through you for approval. Where building modification is involved, the BCE is the implementing office of primary responsibility. You will need to prepare the necessary work request documents if the suggestion receives approval; see AFI 38-401,

The Air Force Innovative Development Employment Awareness (IDEA) Program (10/1/97) for additional guidance).

12. Energy Management

a. As building manager, you are responsible for energy management within your building.

b. The Department of Defense has designated FY 85 as the "base line" for computing nationwide energy conservation requirements. All government agencies are directed to reduce energy usage.

c. Your Base Energy Manager can tell you the reduction percentage for your base and explain your role in helping with energy reduction goals. They can also provide information, recommendations, and answers to your questions on how to carry out this responsibility.

d. Your Base Energy Plan and your local Base Energy regulations set procedures you should follow for utilities management and energy management. Be familiar with the base regulations because you are responsible for implementing the energy program they set forth. Your responsibilities should include, but are not limited to:

(1) assisting the Base Energy Manager by implementing base programs and policies in your building;
(2) promoting a positive attitude for energy management practices in your building;
(3) making sure thermostats are set at correct temperatures during the heating or cooling season;
(4) making sure all-windows and doors are closed when the building is being heated or cooled;
(5) making sure inside lights are turned off when not in use during duty hours and after duty hours;
(6) making sure outside lights are turned off during daylight and that they are not used in excess or beyond a requirement to provide safety or security during darkness;
(7) making sure equipment in the building is turned off during extended nonuse periods during duty hours and after duty hours unless the equipment must stay on for technical or practical reasons;
(8) making sure plumbing fixtures, especially hot water, are not leaking;
(9) making a periodic walk-through of the facility to make sure energy management is practiced by noting items listed above; and
(10) notifying civil engineering promptly when discovering an energy wasteful condition that needs their support to correct.

e. You are the person with the most direct influence in helping the base meet its energy reduction goals. Your actions will save the base thousands of dollars in energy costs each year and allow those savings to be used for needed, basewide, facility improvements.

13. Fire Protection

a. As building manager you are responsible to your unit commander for the fire safe condition of your facility.

b. You or your alternate should accompany the fire inspector during scheduled fire prevention inspections. Throughout these inspections, the fire inspectors will note fire hazards and deficiencies. They will explain your duties and responsibilities for the maintenance of a fire safe building and will give you instructions for required corrective actions. If you do not receive this information during the inspection or in a follow-up report, contact the base fire department for assistance.

c. The fire prevention inspection is the quality control element of a unit's fire prevention program. During inspections, fire prevention inspectors pay particular attention to:

(1) the occupant's knowledge of fire reporting, evacuating, and first-aid firefighting;
(2) the adequacy and condition of fire suppressants, detectors, alarms, and protective systems and devices;
(3) the adequacy and condition of devices and building features, (fire doors, walls, draft stops, etc.) to segregate and separate special fire hazard occupancy areas;
(4) the condition of heating, fuel handling, and similar devices or equipment which can become hazardous if neglected;
(5) the adequacy of safe practices to prevent fires;
the control of smoking and the proper disposal of smoking materials;
(6) the condition of electrical equipment and connections;
(7) all housekeeping practices;
(8) the adequacy, condition, and accessibility of fire exits;
(9) any evidence of self-help projects not approved by civil engineering, such as installed wood paneling or false ceilings; and
(10) the adequacy, condition, location, and accessibility of portable fire extinguishers.

d. Correct fire hazards and deficiencies in a prompt manner. If necessary, ask your fire inspector for advice.

e. As the building manager, you should make sure these actions are completed if a fire

occurs:

(1) make sure a fire alarm is given;
(2) evacuate the building or area;
(3) notify the fire department;
(4) use portable fire fighting equipment (extinguishers, standpipe hose, etc.) to extinguish a fire if it’s discovered in its early stages; and
(5) meet the fire vehicles and direct the fire fighters to the fire.

14. Building Security

a. Building security is another responsibility of the building manager. Establish a standard procedure for making sure your facility is secure from illegal entry at all times. Double check all doors and windows when closing the building and be sure all locks are in good working order,

b. Security Police law enforcement patrols conduct regular security checks on base facilities. If your building is not secure, you will need to respond immediately to lock doors or close

windows. A follow-up DD Form 1569, Incident/Complaint Report, will then be sent to your unit commander for action. Insecure buildings are a command interest item at many staff meetings.

c. Impress upon all personnel the importance of building security. Without cooperation, your job as building manager will become much more difficult. Regardless of who is responsible for a break in building security, YOU are the one who has to correct it.

d. If you have questions concerning building security, contact the Security Police Crime Prevention Section, the Resources Protection Section, or the Law Enforcement Desk.

15. Key Control

a. As building manager, you are responsible for the security of all basic keys that service your building. You should establish security procedures to make sure there is NO duplication of keys without your personal knowledge or official written approval.

b. You are NOT responsible for keys that control specialized areas in your facility. These are areas that organizations use for safeguarding their specialized equipment, sensitive documents, personal tool kits, etc.

c. You should repossess all keys from personnel who are going to a permanent change of station, who have been discharged, or whose employment has been terminated. Keys issued to personnel going on extended leave or on a temporary duty assignment for over 30 days should be held for safekeeping. Upon vacating a building or any assigned space, be sure the appropriate keys are returned to the appropriate BCE office.

d. All requests for keys should be made by letter to the BCE. This letter should include: building number; room number, if applicable; duty telephone number; and complete justification for your requirement.

a. For other than normal wear and tear, replacement keys should be the monetary responsibility of the individual to whom the keys are issued. Check with the CSU to determine local procedures for key replacement.

f. The BCE will provide additional keys if justification is sufficient and with an approved request. Civil engineering will issue master keys to the using organization when the building lock system is "rekeyed' or if the locks are replaced. There will be no approval of requests for master keys without the concurrence of your unit commander and the BCE. Record all actions involving key control on AF Form 3126, General Purpose, used as your key control register.

16. Records

a. The records you keep will give the BCE a chronological history of your building. They provide trends in maintenance and repair requirements and identify potential problem areas so they can be corrected before they become major problems. They also tell when it is time to start thinking about new construction, rather than maintenance and repair. Your records file may contain:

(1) your local regulations,
(2) this handbook,
(3) building Manager's log, and
(4) the key Control Register.

b. Important telephone numbers should be readily available, including:

(1) Production Control Center (or zonal point of contact),
(2) Customer Service Unit (CSU),
(3) Service Call Desk,
(4) Real Property office,
(5) Self-help Store,
(6) Energy Management,
(7) Fire Department Technical Services,
(8) Safety Office,
(9) Bioenvironmental Engineer, and
(10) Security Police.

c. Building management is most often an additional duty, so we recommend you keep a continuity binder or set of binders. These binders are especially critical when the building responsibility moves frequently from person to person (for example, at a short-tour location). We recommend you include any letters designating you the building manager, applicable publications, work orders, notes on local procedures, and any applicable meeting minutes.