**DEPARTMENT OF THE NAVY**
**HEADQUARTERS UNITED STATES MARINE CORPS**
**2 NAVY ANNEX**
**WASHINGTON, DC 20380-1775**

MCO P11000.7C
LFF-2-dld
27 Feb 1987

MARINE CORPS ORDER P11000.7C W/CH 1-5

From: Commandant of the Marine Corps
To: Distribution List

Subj: Real Property Facilities Manual, Volume III, Facilities Maintenance Management

Encl: (1) Locator Sheet

Reports Required: I. BMAR Report and Projects Plan (Report Symbol DN-11014-01), par. 5200.3
II. BMAR Quarterly Update Report (Report Symbol DN-11014-14), par. 5200.4

1. Purpose. To provide guidance and instructions concerning real property facilities maintenance management.

2. Cancellation. MCO P11000.7B.

3. Summary of Revisions. The changes are numerous; therefore this Manual should be read in its entirety. The following major changes are highlighted:

a. The production control functions have been realigned to increase the responsiveness for work input, control, and scheduling.

b. The control inspection program has been expanded to improve the identification of real property maintenance discrepancies.

c. A chapter involving the demolition of unusable, unsightly, and excess facilities (class 2 real property) has been added.

d. The limitation on emergency/service estimated labor and material cost totaling less than $400 has been eliminated.

4. Recommendation. Recommendations concerning the contents of the Real Property Facilities Manual, Volume Ill, are invited. Submit to the Commandant of the Marine Corps (CMC) (LFF-2) via the appropriate chain of command for evaluation.

5. Reserve Applicability. This Manual is not applicable to the Marine Corps Reserve.

6. Certification. Reviewed and approved this date.

J. J. WENT
Deputy Chief of Staff
for Installations and Logistics

DISTRIBUTION: CCI

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DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON. D.C. 20380-0001

MCO P11000.7C Ch 1
LFF-4 -dt
1 Jun 1988

MARINE CORPS ORDER P11000.7C Ch 1

From: Commandant of the Marine Corps
To: Distribution List

Subj: Real Property Facilities Manual, Volume III, Facilities Maintenance Management

Encl: (1) New page inserts to MCO P11000.7C

1. Purpose. To transmit new page inserts and direct a pen change to the basic Manual.

2. Cancellation. MCO 4400.158A.

3. Action

a. Remove present pages iii and 4-21 through 4-24 and replace with corresponding pages contained in the enclosure hereto.

b. On page 4-2 make a pen change for the page citation for paragraph 4601 to read "4-22" vice "4-23."

c. Insert new chapter 7 and appendix D in the basic Manual.

4. Summary of Changes. This Change incorporates the cancellation of the Marine Corps Order covering Facilities Maintenance Material Management and replaces it with a chapter specifically addressing that subject. The management of material and supplies as well as the executing labor is so integral an element of facilities maintenance (FM) that a special system of supply support must be established. Set forth herein is a management system that recognizes the unique commercial nature of FM material support.

5. Change Notation. Significant changes contained in the revised pages are denoted by an arrow (>) symbol.

6. Filing Instructions. This Change transmittal will be filed immediately following the signature page of the basic Manual.



PCN 102 113000 01

7. Certification. Reviewed and approved this date.

J. J. WENT
Deputy Chief of Staff
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SUBJ: MCO P11000.7C CH 2. REAL PROPERTY FACILITIES MANUAL, VOL III, FACILITIES MAINTENANCE MANAGEMENT

1. THIS CHANGE IS APPLICABLE TO THE MARINE CORPS ACTIVITIES ON DISTRIBUTION CODE CC1.

2. PURPOSE. TO DELETE A REPORTING REQUIREMENT IN THE SUBJ ORDER.

3. ACTION.

A. ON PAGE 1 OF SUBJ ORDER, DELETE REFERENCE TO BMAR QUARTERLY UPDATE REPORT (REPORT SYMBOL DB-11014-14).

B. ON PAGE 5-6, DELETE PARAGRAPH 5200.4.

C. REMOVE PAGES C-15, C-16, AND C-17, AND RENUMBER SUCCEEDING PAGES.

4. SUMMARY OF CHANGE. THE REQUIREMNT FOR QUARTERLY TRACKING OF THE MARINE CORPS BACKLOG OF MAINTENANCE AND REPAIR HAS BEEN

L(9), LF(2), POC(1)

WILLIAM TUCKER/LFF-4/43188

W. G. CARSON, JR, LTGEN, DC/S I&L, 42755

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PCN 102 11300002

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DETERMINED TO BE UNNECESSARY.

5. FILING INSTRUCTIONS. THIS MESSAGE CHANGE WILL BE FILED IMMEDIATELY FOLLOWING PAGE 4 OF THE BASIC MANUAL.

DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON. D.C. 20380-0001

MCO P11000.7C Ch 3
LFF-2-dld
12 May 1989

MARINE CORPS ORDER P110000.7C Ch 3

From: Commandant of the Marine Corps
To: Distribution List

Subj: Real Property Facilities Manual, Volume III, Facilities Maintenance Management

Encl: (1) New Page inserts to MCO P11000.7C

1. Purpose. To transmit new page inserts to the subject Manual.

2. Action. Remove and destroy present pages 4-21, 4-22, 7-3 through 7-6 and replace them with the corresponding pages contained in the enclosure hereto.

3. Summary of Changes. This Change provides refinement to the new system of facilities maintenance material support conveyed by Change 1 to this Manual.

4. Change Notation. Significant changes contained in the revised pages of this Change are denoted by an arrow (>) symbol.

5. Filing Instructions. Change 2 was issued as AIG Zero Zero Eight message 050243Z. This Change transmittal will be filed immediately following page 5 of the basic Manual.

6. Certifiction. Reviewed and approved this date.

W. G. CARSON, JR.
Deputy Chief of Staff
for Installations and Logistics

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DEPARTMENT OF THE NAVY
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MCO P11000.7C Ch 4
LFF-4
10 Oct 90

MARINE CORPS ORDER P11000.7C Ch 4

From: Commandant of the Marine Corps
To: Distribution List

Subj: REAL PROPERTY FACILITIES MANUAL, VOLUME III, FACILITIES MAINTENANCE MANAGEMENT

Encl: (1) New page inserts to MCO P11000.7C

1. Purpose. To transmit new page inserts to the basic Manual.

2. Action

a. Remove and destroy present pages 1-1, 1-7 through 1-11, and 2-1 through 2-21 and replace with corresponding pages contained in the enclosure hereto.

b. Insert new page 1-12 in the basic Manual.

3. Summary of Chances. This Change corrects deficiencies discovered in the basic Manual and should be reviewed in its entirety.

4. Chance Notation. Significant changes contained in the revised pages are denoted by an arrow (>) symbol.

5. Filing Instructions. This Change transmittal will be filed immediately following page 8 of the basic Manual.

6. Certification. Reviewed and approved this date.

J. C. ARICK
Acting Deputy Chief of Staff
for Installations and Logistics

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7000144/8145001 (1)

DEPARTMENT OF THE NAVY
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2 NAVY ANNEX
WASHINGTON DC 20380-1775

MCO P11000.7C Ch 5
LFF-4
18 Feb 94

MARINE CORPS ORDER P11000.7C Ch 5

From: Commandant of the Marine Corps
To: Distribution List

Subj: REAL PROPERTY FACILITIES MANUAL, VOLUME III, FACILITIES MAINTENANCE MANAGEMENT

Encl: (1) New page inserts to the basic Manual

1. Purpose. To transmit new page inserts to the basic Manual and direct a pen change.

2. Action

a. Remove and destroy present pages 1-3 through 1-4, 1-11 through 1-12, 4-3 through 4-8, 4-13 through 4-14, 4-17 through 4-18, 5-5 through 5-10, C-1, and C-5 through C-8 and replace with pages contained in the enclosure hereto.

b. Remove and destroy present pages C-29 through C-32 of appendix C.

c. Remove present chapter 7 and replace with corresponding chapter 7 contained in the enclosure hereto.

3. Summary of Chances. This change contains major changes in the area of supply management for facilities operations and should be reviewed in its entirety.

4. Chance Notation. Significant changes in the revised pages for this Change are denoted by an arrow (>) symbol.

5. Filing Instructions. This Change transmittal will be filed immediately following page 9 of the basic Manual.

6. Certification. Reviewed and approved this date.

R. A. TIEBOUT
Deputy Chief of Staff
for Installations and Logistics

DISTRIBUTION: PCN 10211300005

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7000144, 8145001 (1)

LOCATOR SHEET

Subj: Real Property Facilities Manual, Volume III

Location: _____
(Indicate the location(s) of the copy(ies) of this publication.)

ENCLOSURE (1)

REAL PROPERTY FACILITIES MANUAL

RECORD OF CHANGES

Log completed chance action as indicated

| Change Number | Date of Change | Date Received | Date Entered | Signature of Person Entering Change |
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REAL PROPERTY FACILITIES MANUAL

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REAL PROPERTY FACILITIES MANUAL

# CHAPTER 1

# GENERAL INFORMATION


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# CHAPTER 1

# GENERAL INFORMATION

## SECTION 1: INTRODUCTION

### 1100. INFORMATION

1. Scope. The policies, guidance, and instructions of this Manual pertain primarily to real property facilities maintenance management and certain services categorized as operations. In the Department of Defense (DoD) these functions are referred to as real property maintenance activities (RPMA). (See paragraph 3000.1, following.) The term "activity" in this context refers to a function or operation rather than the general Marine Corps inference of a complete organizational entity of facilities and personnel.

2. Definitions and Abbreviations. See appendix A1.

1101. APPLICABILITY TO MAJOR SHORE ACTIVITIES. Commanders of Marine Corps major shore activities listed in appendix A2 shall implement the maintenance program and procedures in accordance with this Manual. Activity-published directives should define the organization and the functions of the facilities maintenance organization, describe the procedures to request and finance various types of work, specify average lead times for material procurement, and state requirements for processing work requests and scheduling control inspection.

### 1102. APPLICABILITY TO MINOR SHORE ACTIVITIES

1. General Information. As applicable, activity commanders of Marine Corps minor shore activities listed in appendix A2 shall be governed by this Manual and as condensed in the following paragraphs.

2. Maintenance Support Services

a. In-House Work Limitation. Generally, maintenance requirements for real property facilities shall be performed in-house only for emergency/service work (requiring 2-man days or less and no more than two shops with no limitation on material dollars). Major repair and extensive maintenance work should be performed via intraservice/interservice support agreements or by contract unless there is a computed cost advantage to performing

the work in-house, the work is time sensitive, or the in-house workload is required for leveling workforce requirements in certain trades.

b. Intraservice/Interservice Support Agreements. Intraservice/interservice support agreements or host tenant agreements shall be completed with the appropriate local commander in the naval complex at which the Marine Corps activity is located, the appropriate engineering field division (EFD) of the Naval Facilities Engineering Command (NAVFACENGCOM), nearby public works center or other nearby Government agencies. Guidelines for reimbursement are governed by NavCompt Manual, volume 7, chapter 5. Local base/station interservice support agreement (ISA) coordinators are available for assisting in 15A preparation. The terms of the agreement should state the type and reimbursement rates for the services to be performed and should provide that:

(1) The maintenance support agency shall be notified annually of the scope of the services required for the ensuing fiscal year and of changes that occur during the year so that the support agency may plan needed labor, material, and equipment for its total workload.

(2) Charges for control inspection, planning, estimating, and other overhead and engineering services shall be reimbursed within the DON only when such services are obtained from a Defense Business Operating Fund (DBOF) activity like public works centers.

(3) The support agency shall provide financial reports and unit quantity data needed by the requesting activity for the preparation of reports.

3. Personnel

a. Assigned Staff

(1) Civilian Labor. Generally, a minor shore activity operating within the confines of a naval complex should limit the maintenance staff to an administrator. Journeymen and lower skilled crafts/trade personnel should not be employed. Activities not located at a naval complex should employ the minimum number of administrators, journeymen, and lower skilled crafts/trade personnel required to accomplish emergency/service and minor work.

(2) Indigenous Labor. Overseas activities shall employ indigenous labor to the maximum extent practicable.

b. Other Personnel Support

(1) Supporting Agencies. The primary source for personnel for minor shore activities will be through support agreements as outlined in paragraph 1102.2b, preceding.

(2) "Self-Help" Program. Military personnel may maintain and repair barracks, workplaces, recreational areas, and grounds designated for their use. The term "self-help" is applied to such labor services as differentiated from services performed by military personnel permanently assigned or temporarily detailed to the maintenance section. The self-help program is limited to those types of tasks normally undertaken by a prudent homeowner, using minimum craft skills and simple hand tools. Civil Service workforce should not be used.

4. Control Inspection Program. A control inspection program, designed to provide complete inspection coverage of all Marine Corps owned real property facilities, shall be instituted. The control inspection shall be based on experience, engineering judgment, and NAVFAC MO 322, volume 1. If an activity lacks qualified personnel, assistance should be requested from the supporting NAVFACENGCOM EFD to establish and implement a control inspection program. The purpose of control inspection is to inspect all facilities to detect deficiencies in the early stages of development, reduce the number of breakdowns and costs of repairs, maintain a more constant flow of work, plan for efficient use of resources, and provide input for the Long-Range Maintenance Plan (LRMP) Backlog of Maintenance and Repair (BMAR) Report, and projects plan.

5. Maintenance and Repair Planning. Maintenance and repair plans shall be developed for a 5-year period, based on the results of control inspection of each facility in the real property inventory. The first year of this plan will be the annual work plan for the current year (see appendix B). The annual work plan will also provide backup data for the budget year and budget year plus one requests for funds.

6. Fund Support. Funds to support the requirements revealed by control inspection shall be obtained through annual expense operating budgets as detailed in annual field budget guidance, or by specific sums for authorized projects that exceed the approval authority of the activity commander as prescribed in the current edition of MCO P11000.5. Annual budget requests shall be planned and justified on the data sources tabulated in paragraph 3206.2d, following.

7. Work Programs

a. Annual Work Program. The annual plan described in paragraph 1102.5, preceding, shall be translated into an annual work program supported with funds allotted tc the activity under Functional Category Codes (FCC's) M (maintenance and repair), P (other engineering support services) , and R (minor construction). Specifically, the program shall reflect selections of specific maintenance and repair shown for the first year of the maintenance plan and anticipated requirements for continual maintenance, other engineering suppcrt, and minor construction which can be undertaken with the resources that will be available for the oncoming fiscal year. The annual work program should be compiled no later than the beginning of the fourth quarter of the current fiscal year and announced to the supporting activity as proposed in paragraph 1102.2b(1), preceding.

b. Quarterly Work Program. The quarterly work program parallels the format and updates the data elements comprising the annual work program as it applies to the quarterly period.

8. BMAP Report and Projects Plan. The report described in paragraph 5200, following, shall be compiled by commanders holding class 1 and 2 property and by all other minor shore activity commanders.

## 1103. TECHNICAL GUIDANCE

1. Navy Publications. Shore activity commanders shall be guided by the technical criteria contained in technical publications of the NAVFACENGCOM. The manuals may be cbtained through the usual sources of supply. (See the current edition of MCO P5600.31.) Activities should ask to be placed on the distribution list for issues of NAVFAC P-349 (Index of Naval Facilities Engineering Command Publications) and for those publications which apply to the activity.

2. Navy Services. The EFD's of the NAVFACENGCOM will provide technical assistance to Marine Corps activities upon request. (See paragraph 2300.2, following.)

# CHAPTER 1

# GENERAL INFORMATION

## SECTION 2: GENERAL POLICIES AND CRITERIA

### 1200. PERSONNEL POLICES AND WORK CRITERIA

#### 1. Staffing

a. Personnel to perform the functions of the facilities maintenance organization should be assigned based on the needs of the organization and within authorized limits prescribed in separate Marine Corps directives. Staffing needs of facilities maintenance should be based on annual recurring workloads, with consideration given to equaling these workloads with productive effort through the use of Engineered Performance Standards (EPS). The number of facilities maintenance personnel required is dependent on the workload and functions to be performed in accomplishing (establishing and executing) the RPMA program in the most economical manner.

b. Commercial activities (CA) program reviews of all RPMA functions will be conducted in accordance with the current edition of MCO 4860.3. Consider the following guidance when making most efficient organization (MEO) and other CA study decisions:

(1) The "manage to payroll" funds available to the command may be a manpower limitation on the number of people in the MEO.

(2) If a potential contractor can pay his employees (as stated in the Department of Labor wage determination) less than what the Government pays its employees (under established wage scales for Government employees) to do similar work, then it may be prudent to contract out the function directly rather than include it with other functions in a multi-function MEO.

(3) Externally (Office of Personnel Management, etc.) imposed determinations affecting classification actions on civilian Government employees may limit grading flexibility and the MEO competitiveness of a function.

(4) The MEO should include only those positions that would be directly affected by a decision to convert the function(s) to contract performance. Positions such as control inspectors, production controllers, maintenance managers, and others that perform inherently governmental functions should not be subjected to CA review.

(5) Closely scrutinize and reduce positions that indirectly support a function under CA review, such as Supply Department personnel. These positions count against the RPMA functions "bottom line" (as overhead) just as much as if the positions were in the MEO.

(6) Because RPMA work is dynamic in nature, activities should closely monitor the data base of positions included in their functions undergoing CA study, and modify their original announcements where measurable MEO changes have occurred.

2. Use of Labor Services. When planning a T/O for the facilities maintenance organization, the activity commander shall be governed by the following:

a. DoD Policy. It is DoD policy that activity commanders should mix civilian, military, and contractor effort to obtain the best price, quality, and responsiveness for their RPMA work.

b. Use of Civilian Personnel. Regular civil service maintenance forces should normally perform maintenance and repair work, and the staffing thus required should be the minimum necessary to accomplish that work. Except as otherwise specified in this section, such forces should not be used to accomplish new construction work that is not incident to,maintenance/repair work.

c. Use of Military Personnel. Activity commanders may use available military personnel to augment RPMA work accomplishment, provided that such use is not intended to circumvent the use of available civilian employees or preclude the use of private contractors for which adequate fund support is available. The following specific guidance is offered:

(1) Military construction units (e.g., FMF engineer units) used in augmenting regular RPMA forces will be as prescribed in the current edition of MCO 5312.13.

(2) Military positions that are integral components of the activity’s RPMA workforce that is undergoing a CA review must be converted into civilian positions for inclusion in an MEO unless an exemption has been granted by the CMC (MPRO info LFF) in accordance with the current edition of MCO 4860.3.

(3) Military personnel are encouraged to participate in the self-help program as discussed in paragraph 1201 of this Manual.

d. Use of Contractor Effort. A portion of the annual work program workload will either exceed in-house capability or for reasons of price, quality and responsiveness can be more efficiently done by contract. As a general rule, the in-house work force should be limited to doing recurring work (to include preventive/cyclical maintenance, utility operations, BMAR reduction, and minor repairs). New construction work should be done by contract unless one or more of the following applies:

(1) Small Value Work. The work is of such a nature that doing it by contract would be neither practical nor economical.

(2) Physical Limitations. The physical limitations are such that preparation of plans and specifications for contract accomplishment would be impractical.

(3) Security. The need to obtain appropriate security clearances for contractor personnel would impose unacceptable delays in meeting operational deadlines.

(4) Intermittent Work. Work must be performed intermittently to avoid disrupting essential operations and functions.

(5) Incident to Maintenance and Repair. Work involved is so closely mixed with maintenance and repair work to be accomplished by government employees that separation is impractical. However, in these cases, consideration should be given to accomplishing all work by contract.

3. Work Limitations

a. Civilian Employees. During the hours for which employees are paid from appropriated funds, civilians shall not perform any work other than that authorized by an approved emergency/service ticket, standing job order, or specific job order meeting the definition provided in appendix A.

b. Military Labor

(1) Military labor will be costed to those functions actually performed in accordance with the current edition of MCO P7300.8. Military absence for personnel normally performing FM work will be changed to FCC P only.

(2) Prisoners or personnel undergoing nonjudicial punishment may perform routine tasks such as grounds maintenance.

(3) Military personnel may perform work approved for accomplishment under the self-help program described in paragraph 1201 of this Manual.

(4) FMF engineers may perform specific RPMA work approved in accordance with the current edition of MCO 5312.13.

4. Indigenous Labor., WESTPAC activities shall employ local indigenous labor to the maximum extent practicable.

## >1201. SELF-HELP PROGRAM

1. Definition. Self-help is the use of local military and dependent personnel, not normally assigned full-time to activity maintenance functions, to accomplish real property maintenance, repair, equipment installation, and new minor construction work. Self-help personnel will have varying abilities and skill levels and will usually require supervision by qualified journeymen.

2. Background. DoD policy permits installation commanders to authorize residents of Marine Corps camps and stations to undertake work that augments the activity's ability to get needed FM work done. Installation commanders must ensure that local government and trade union representatives are advised that this policy is not to compete with civil service employees or the construction industry but rather permit installation residents to accomplish work that will improve installation facilities.

3. Policy. It is Marine Corps policy that:

a. Installation commanders may, at their discretion, use a self-help program to accomplish maintenance, repair, equipment installation and minor construction work that would otherwise not be accomplished due to higher priority work.

b. The use of the self-help program will augment but not replace that work traditionally performed by military, civil service, and contractor personnel for which funds are expected to be available during the period covered by the annual work plan.

c. Installations may assign qualified representatives from the facilities maintenance organization to provide necessary technical and professional assistance to personnel participating in the self-help program. Use of Government civil service workers in a technical role is authorized. Time for Government civilian employees will be accounted to a specific job order (SJO) assigned to the project and not costed as overhead.

d. Projects which exceed the installation commander's approval authority as described in the current edition of MCO P11000.5, or are done by either Fleet Marine Force Engineer Units (per MCO 5312.13) or Naval Construction Forces are not included under the authority of the self-help program.

4. Work Authorization. Installation commanders sponsoring a self-help program are encouraged to publish local directives containing program information such as: instructions to tenant commanders encouraging them to participate in the self-help program; what types of work are eligible for program accomplishment and; the system being used for requesting/approving projects and monitoring program execution. Self-help program work authorizations may be categorized as follows:

> a. Work requiring 2-man days or less of labor. Tasks in this category might include freeing minor plumbing stoppages, grounds maintenance, and other normal household handyman work. Local procedures should account for the drawing of materials against standing job orders.

> b. Nonrecurring specific tasks requiring more than 2-man days such as painting (other than touch up which could be handled by paragraph 1201.4a), basic carpentry, electrical, plumbing, and landscaping to include drainage work, etc. A local Specific Job Order (SJO) should be established to account for materials drawn against these nonrecurring tasks.

5. Procedures

a. Installation tenant activity commanders should submit requests for self-help program projects in writing to the installation facilities maintenance officer.

b. All self-help program projects should be approved by the FMO, or designated representative, prior to the start of work and after the work is completed to ensure safety and installation quality are maintained.

c. Once approved for execution, the FMO will establish a SJO to cover the specific work. The SJO will be the authorizing document for bill of material (BOM) preparation, ordering of supplies and equipment, and allocating of technical and professional assistance.

6. Cost Accumulation

a. Installations should establish procedures to identify the self-help program costs. Since material expenditures, except for

family housing and nonappropriated fund accounts, are generally nonreimbursable, the command will need to budget sufficient funds to cover associated costs.

b. For specific projects, military labor hours on the SJO will be computed as specified in NavCompt Manual, volume III, paragraph 03759, based on the estimated staffing provided by the requesting unit. In the absence of a specific listing of personnel by grade, military labor and dependent costs on the SJO will be computed at $13 per hour. Actual labor used need not be recorded. Material and equipment costs shall be charged in accordance with established accounting procedures.

c. Only the cost of materials expended for miscellaneous tasks, not otherwise drawable against a Self-Help Program standing job order or against an SJO shall accrue against the applicable emergency/service standing job order.

1202. STATEMENT OF INSPECTION ACCEPTANCE. Final inspection, prior to acceptance, of all contracted maintenance, repair or minor construction projects, shall be conducted jointly by the FMO and activity Public Works Officer (PWO). The purpose of this inspection is to ensure that conditions which may create maintenance problems are identified and corrected. These officers shall jointly sign a statement of recommended command acceptance of the completed contract work. The inspection or signed statement shall in no way be construed to interfere in the relationship established by law between the contracting officer and the contractor. Final inspection effort should also identify and collect appropriate warranty documentation.

1203. FACILITY UTILIZATION

1. Maximum Use. Facilities shall be used to the maximum extent possible and, if not fully used, should be considered for conversion to other or multipurpose facilities when practicable.

2. Minimum Maintenance. Unused facilities shall be placed in standby status and maintained only sufficiently to preserve the structural integrity. Facilities replaced by new construction which are not intended to be used to satisfy other valid deficiencies shall be vacated and utilities disconnected. As indicated in chapter 6 of this Manual, demolition should occur as promptly as possible since continued retention will invariably lead to costly maintenance expense.

## SECTION 3: FUNDING CRITERIA

### 1300. GENERAL INFORMATION

1. Fund Sources. Funds to support the labor, material, equipment, and contracted services required for functions performed on a non-reimbursable or reimbursable basis by the facilities maintenance orgarizations are obtained from the following most common sources:

a. Operations and maintenance, Marine Corps (O&MMC) appropriation.

b. Military Personnel, Marine Corps (MPMC) appropriation.

c. Family Housing Navy and Marine Corps (FHN&MC)

d. Industrial funds.

e. Nonappropriated funds.

2. Fund Utilization. The activity commander must ensure that funds allocated as part of the maintenance floor are not diverted. Allocated funds for utilities and other engineering support shall be carefully managed to ensure that continuous adequate services are provided at minimum costs and with minimum waste. Due to both congressional language and prudent management RPMA funds should be utilized as much as practicable to reduce existing BMAR.

1301. MINOR CONSTRUCTION TARGET. Congress has indicated that funds for maintenance of real property should be used foremost to reduce the backlog of maintenance and repair. Accordingly, a reasonable target for locally approved expenditures for minor construction (FCC R-l) is 6 percent of the Maintenance of Real Property (M-1/R-1) funds provided in the activity's financial ceilings. The 6 percent target can be exceeded when local conditions warrant. Activities shall notify the CMC (LFF) of intent to exceed the target and amount (e.g., 7 percent, 9 percent, etc.).

# CHAPTER 2

# GENERAL INFORMATION


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# CHAPTER 2

# FACILITIES MAINTENANCE ORGANIZATION AND RELATIONSHIP

## SECTION 1: GENERAL INFORMATION

### 2100. ORGANIZATION STANDARDIZATION

1. Suitability. The extent to which RPMA is performed at individual Marine Corps activities influences the organizational composition, personnel requirements, and responsibilities of the FM organization. At major installations, that organization will be a subset to an encompassing facilities management organization as indicated in figure 2-1. At minor activities, FM will usually come under the cognizance of the activity logistics officer. The criteria to determine the suitability of an organization pattern on a broad scale is based on functions common to a FM organization at major activities. Individual activity peculiarities are acceptable reasons for deviating from the standard. Figures 2-2 through 2-6 show a typical facilities maintenance organization. The T/O should be developed, to include an adequate work force to accomplish all FM organization functions regardless of supporting fund sources.

>2. Application

a. FM, as an element of a facilities management organization, shall be simplified to a minimum of intermediate components and layers of supervision. The general structure developed should be tailored to support the MEO discussed in paragraph 1200. With these basic principles in mind, activity commanders may expand or condense the organizational structure depending on the scope of responsibilities assigned to the FM organization. However, frequent reorganizations should be discouraged as they often lead to confusion and low morale.

b. As indicated in the current edition of MCO P11000.l6, the head of the facilities management organization should be titled "Assistant Chief of Staff, Facilities Management." A civilian deputy to that head should be employed to provide continuity for facilities planning and programming within the activity's mission, goals, and objectives. That position should be a general schedule employee, not necessarily classified in the 800 engineer series but may have a more general classification such as 301, 345, 1601, or 1640.

>2101. LOCATION OF MAINTENANCE OFFICERS. The offices and work centers of the FM department should be located so as to facilitate coordination between processing offices, thereby enabling an orderly workflow.

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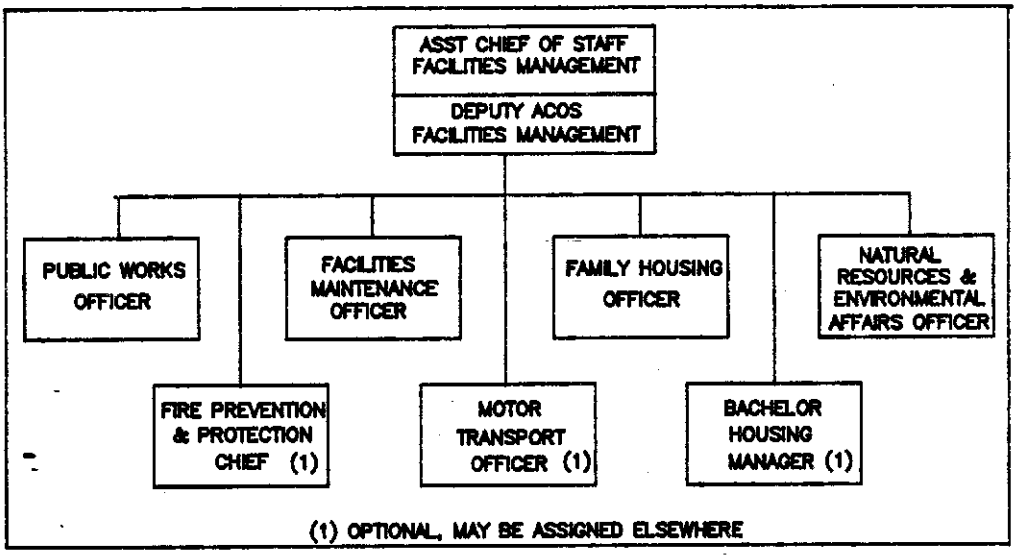


Figure 2–1.––Typical Facilities Management Organization.

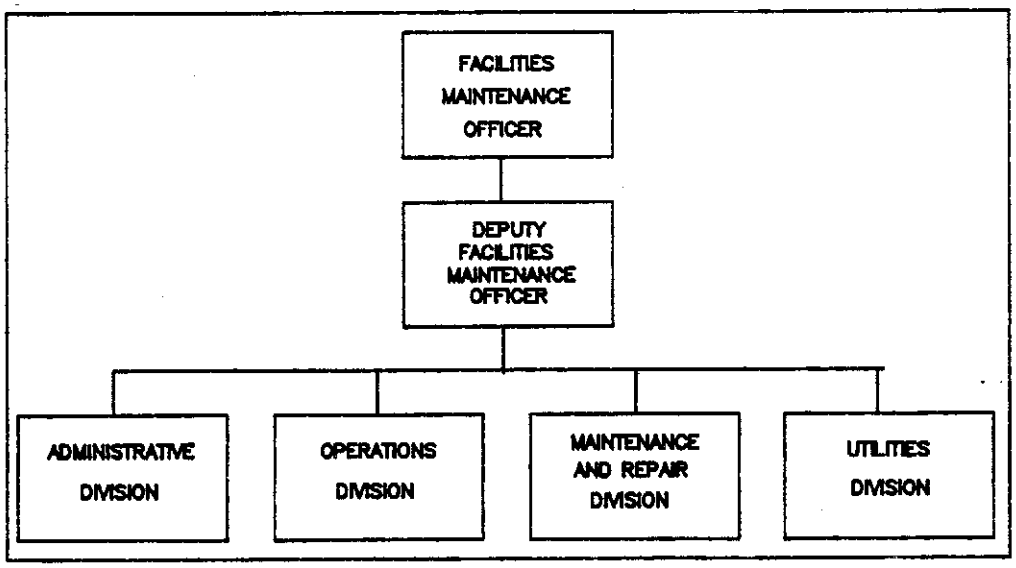


Figure 2–2.––Facilities Maintenance Department.

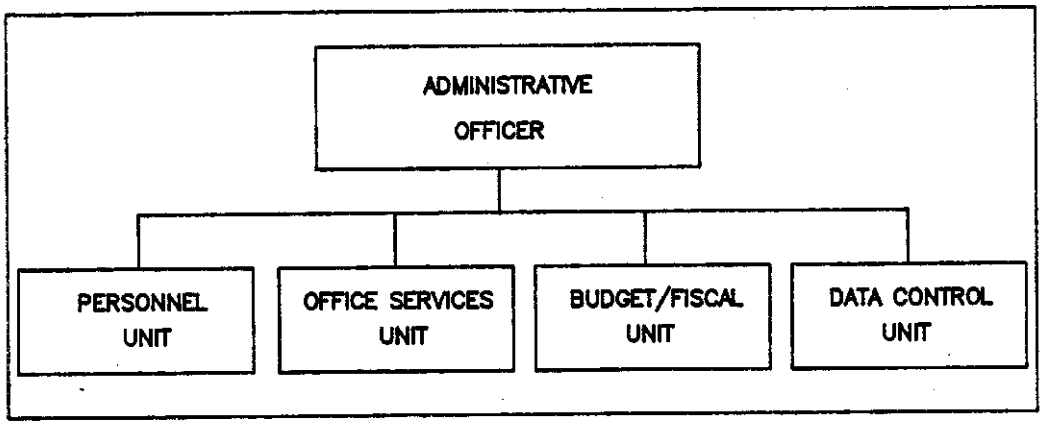


Figure 2-3.--Administration Division.

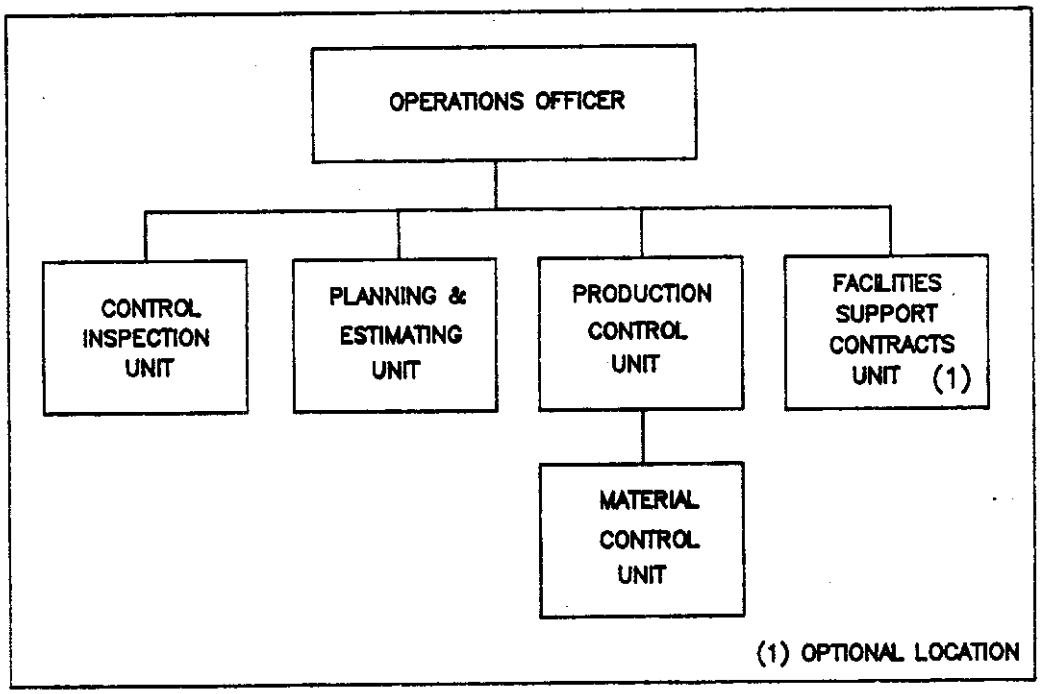


Figure 2-4.--Operations Division.



2-5
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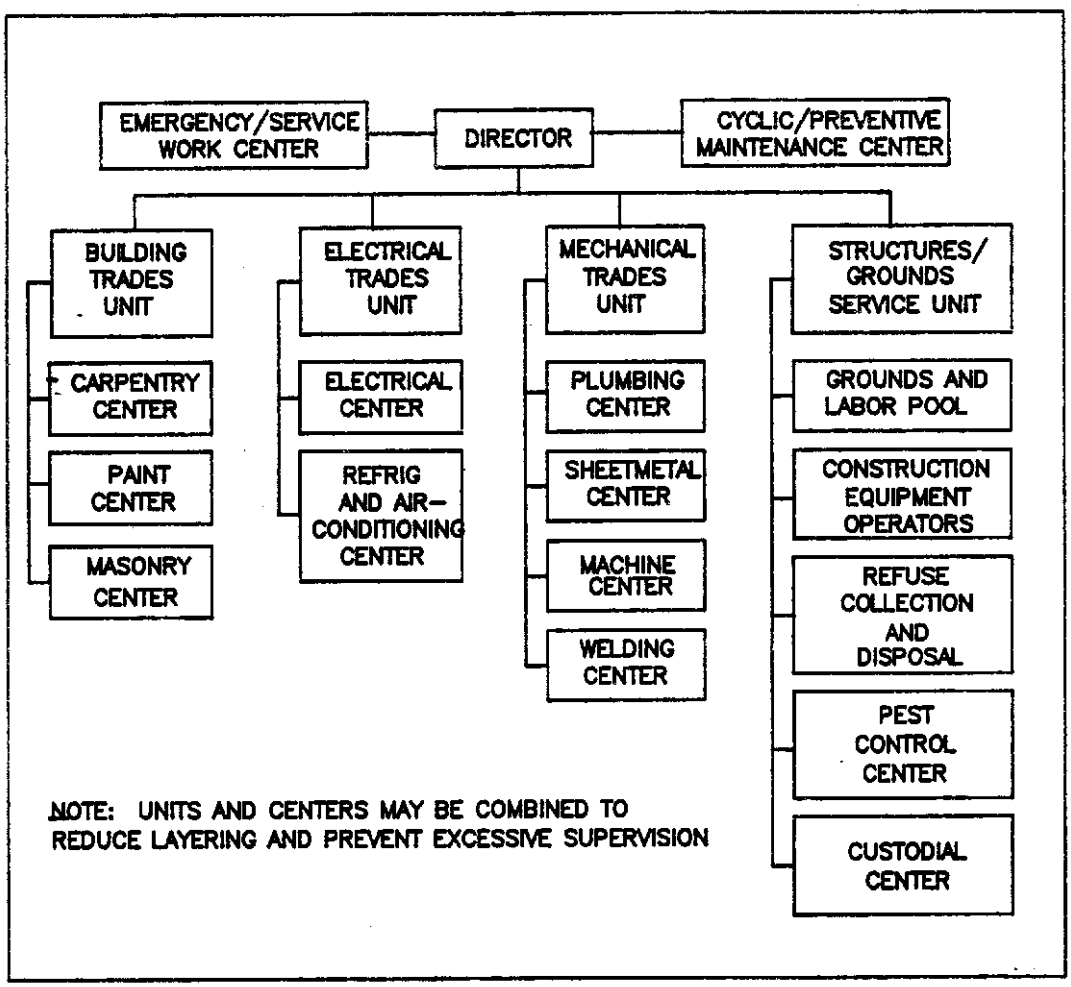


Figure 2-5.--Maintenance and Repair Division.



2-6
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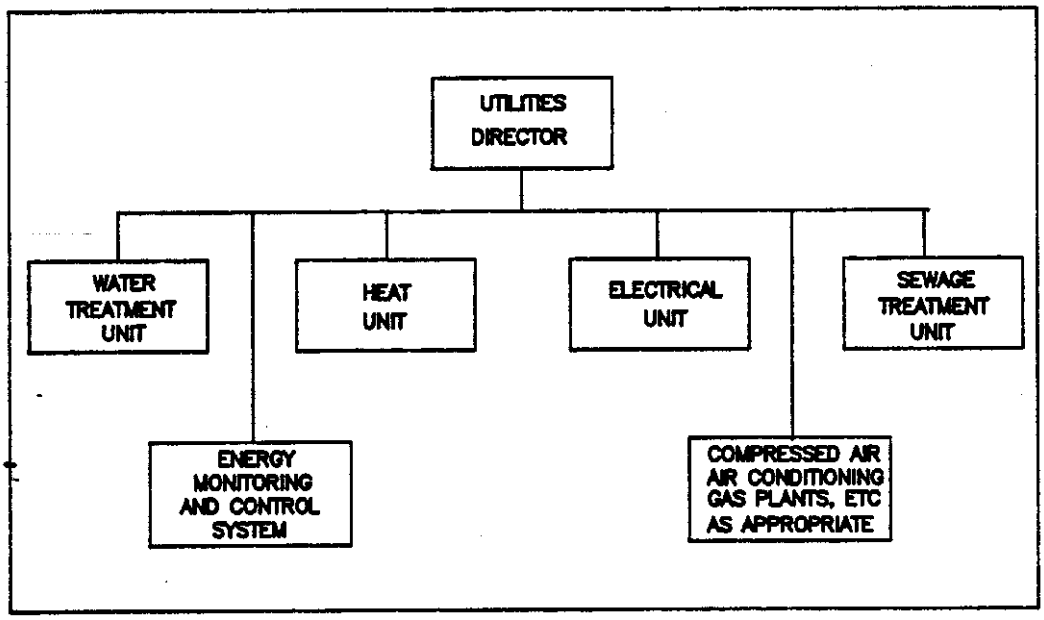


Figure 2–6.––Utilities Division .

# CHAPTER 2

# FACILITIES MAINTENANCE ORGANIZATION AND RELATIONSHIP

## SECTION 2: FACILITIES MAINTENANCE ORGANIZATION BILLETS

**2200. GENERAL INFORMATION.** The responsibilities and qualifications described herein apply to shore activities having 275 or more permanently assigned personnel in the FM organization. At activities with less than 275 personnel, subordinate heads and units may be combined.

### >2201. DEPARTMENT HEADS

**1. FMO**

a. In the chain of command, the FMO should be responsible to the assistant chief of staff, facilities management for RPMA work functions. (See paragraph 1101.) The FMO is responsible for the organization and overall administration of the FM organization.

b. The grade of the officer or civilian in this billet should be appropriate for the FMO1s level of management. An engineering background and a knowledge of financial management and business administration are required. For the officer, staff experience at Headquarters Marine Corps is highly desirable.

c. Marine Corps officers filling FM billets will be primarily assigned out of the feeder Military Occupational Specialty (MOS) 1302.

**2. Assistant FMO**

a. The assistant performs day-to-day responsibilities of the FMO and assumes full responsibilities in the latter’s absence.

b. If a civilian, the assistant will provide continuity and professional engineering expertise, and the billet classified at a grade comparable to the military grade of the FMO’s billet. The billet may be classified in the facilities manager GS-1601 series with a professional background in either trades management or engineering. The incumbent should have a 4-year college degree in either engineering or business management.

c. If a Marine Corps officer, the assistant should have an engineering background and a knowledge of financial management and business administration.

## >2202. FACILITIES MAINTENANCE ORGANIZATION SUBDIVISIONS

1. Administration Division

a. The administration division manages FM organization matters pertaining to office management, including personnel administration; office services; processing correspondence; maintaining records; timekeeping; coordinating budget estimates, fiscal accounting, workflow, and reports.

b. The head of the administration division should be a civilian billet at a grade appropriate for the assigned responsibilities. The incumbent should have a well rounded background in business administration or financial management, preferably both.

2. Operations Division

a. The operations division plans and programs facilities maintenance work by developing long-range maintenance plans and annual/quarterly work programs from information collected through a controlled inspection program and other input sources. The division screens and classifies all work requests, to include emergency and service type work; plans and estimates standing (recurring) and specific (nonrecurring) job order work; obtains and controls needed material and supplies; prepares master weekly work schedules; determines the need for engineering advice and assistance; coordinates work to be performed by commercial contract; manages involvement in facilities support contracts, to include quality assurance and administration; and assists in execution of the activity self-help program described in paragraph 1201.

b. The head of the operations division may be a civilian: billet and when considered according to assigned duties and responsibilities, will normally be graded at a GS-12 level.

c. The control inspection unit manages the activity's annual control inspection program and long-range maintenance planning system. The unit should normally be staffed with ungraded civilians. The head and all incumbents should: have a background in mechanical, electrical, or building trades; be trained in the use of EPS and; be cross-trained as a planner and estimator. All inspectors should be required to complete the NAVFAC control inspector training course, phases I and II offered through a Navy Public works Training Center or Engineering Field Division.

d. The planning and estimating (P&E) unit prepares estimates of labor, materials, equipment, and tools required for job order performance. The unit is normally staffed with ungraded civilian employees; however, where organizations have converted the in-house Government workforce to contract accomplishment, the P&E should be a graded employee except where to do so would cause adverse staffing problems. The unit head and all incumbents should generally have a background in mechanical, electrical, or building trades. Specialized training in the use of EPS should be mandatory. EPS retraining should be scheduled every 3 years. Incumbents should be cross-trained as control inspectors.

e. The production control unit performs work reception, control, and scheduling functions for all work accomplished by the activity maintenance force. All unit members should be graded civilian employees in the 1152 series. The head should have an educational background in production control consisting of a minimum of two college level courses in production control techniques. If incumbent does not have the courses at time of selection, completion within 2 years should be mandatory.

f. The material control unit (MCU) ensures that required supplies, tools, equipment, and other materials are available to support the productive efforts of the maintenance and repair and utilities divisions. The head should have a background in Government material processing and open purchase procedures specified in chapter 7 of this Manual.

g. The facilities support contract (FSC) unit conducts the day-to-day administration of maintenance service and maintenance construction contracts which collectively constitute the FSC program augmenting the in-house government workforce. The unit should be staffed with graded personnel and may include contract specialists and procurement clerks in addition to specification writers and quality assurance (QA) evaluators. Responsibilities include assistance in development of performance work statements (PWS) as well as QA plans for the surveillance of contractor efforts specified in the PWS; assistance in developing government estimates and obtaining wage determinations for open end contracts; assistance at prebid conferences and preaward surveys; making recommendations on certification of payments, deduction of payments, and issuance of contract discrepancy reports; preparing and processing work authorizations for indefinite delivery contracts; and general contract administration duties.

3. Maintenance and Repair Division

a. Responsibilities. This division has the in-house responsibility for maintaining and repairing real property, refuse collection and disposal, and entomological services. The organic units shown in figure 2-5 may be combined and consolidated as may be determined most efficient and cost-effective by the FMO.

b. Director, Maintenance and Repair Division. The director will normally be a graded civilian maintenance superintendent (series 1600). Other supervisors above the work center level should have an engineering or mechanical background with working knowledge of all journeymen trades within their subordinate work centers. All supervisors should complete an orientation/ appreciation course in the use of EPS.

c. Emergency/Service Work Center. All major Marine Corps installations should establish an emergency/service (E/S) work center to perform minor tasks. An E/S ticket will be the authorization for work accomplishment. The E/S center is responsible for timely response to service and trouble calls. If excess travel time to and from the job is required, activities should establish subsidiary E/S centers in outlying areas. Broadly trained maintenance mechanics equipped with portable hand tools and pre-expended bin materials should be used where possible to do E/S work instead of journeymen. E/S work requiring special skills, equipment or supplies not available in the E/S center should be transferred to a parent shop for accomplishment. The center's staff should be adjusted for seasonal or changing requirements. Coordination with the MCU is essential to ensuring a productive E/S center.

d. Cvclic Maintenance/Preventive Maintenance Center (CM/PM). This center should be established to permit the early identification of maintenance and repair requirements and provide a recurring means for timely corrective action. The FMO should: establish SOJ's to authorize CM/PM work, staff the CM/PM center with maintenance mechanic personnel similar to the E/S center, and, where appropriate, combine the CM/PM with the E/S center. Activities should publish duties, responsibilities, and procedures to be followed (by customers and maintenance) in implementing the installation's CM/PM program. Coordination with the MCU is considered an essential element in the conduct of a productive . CM/PM program.

e. Craft Work Centers. As a general rule, trades should be consolidated so that subdivisions contain five or more employees.

(1) The work centers or trade shops are the sources of the trade skills necessary to perform the divisions work assignments. Shop supervisors assign shop craftspersons according to work requirements, check suitability of materials and equipment needed for the job, in coordination with the MCU ensures timely availability of material at the job site, and inspect workmanship and identify materials excess to the job.

(2) Generally, the ratio of supervisors to a work center's staff is 1 to a group of 12 to 15 workmen. The ratio may be adjusted to increase the number of supervisors for work centers continually handling complex jobs that require exceptional skills. Conversely, the number of journeymen to one supervisor may be increased at work centers handling routine jobs that require minimum skills. The use of leaders is encouraged to reduce the number of nonproductive supervisors.

(3) The work centers should be staffed with journeymen mechanics, workers, and helpers in the mechanical, electrical, and building trades.

4. Utilities Branch

a. The utilities branch is responsible for the efficient operation and operator's maintenance of the installation's utilities system. This responsibility includes the operation of nonautomated plants, periodic inspection of automated plants and distribution systems, maintaining and evaluating operational records, evaluating performance reports, coordinating the scheduling of maintenance and overhaul work, ensuring sufficient supplies of fuels and materials, managing the utilities conservation program, establishing and maintaining utilities targets, furnishing quantity data for budgeting and accounting, and planning for future utilities support requirements. The utilities branch should maintain an active maintenance program as outlined in MCO P11000.9.

b. The head of the division (utilities director) should be a civilian at a grade comparable to the grade of the assistant FMO's billet. The incumbent is responsible to the FMO or Assistant FMO to provide continuous technical assistance in the operation, maintenance and conservation of utilities and also serves as advisor and technical expert on utilities matters. The functions of the utilities director are interdisciplinary and involve the application of engineering research techniques in the management of utilities. Electrical and mechanical engineering

predominate in the technical areas of the functions, and the director should be a registered professional engineer. The major goals of the director are to increase productive efficiency, reduce distribution losses, eliminate waste, and attain the procurement of utilities at a minimum cost.

c. Utilities plant supervisors and operators should be qualified by training and experience to operate their plant equipment properly, efficiently, and safely in accordance with established proficiency standards. (See current edition MCO P11000.9, Real Property Facilities Manual, Volume VI, Energy and Utilities Management.)

d. Contract personnel shall be considered to be certified to operate utility plants, provided such personnel are properly and currently licensed by the appropriate authority of the political subdivision (State, territory, county, and city) in which the installation is located. Similarly, proper licensing by the appropriate authority in Japan is required of contract personnel for WESTPAC installations.

## 2203. WORK CENTER CODES

1. Purpose. Work center codes (WCC's) provide a numerical method of identifying administrative and trade groupings within the facilities maintenance department to assist the mechanized collection of cost and hour data.

2. Application. Major activities should use the basic codes designated for the facilities maintenance organization and its divisions, and the subdivisions of the basic codes which are compatible with the local organizational structure. Installations having no subdivisions should use the basic codes only.

| Basic Code | Subdivision Code | Organizational Components (Functional Categorg Code) |
|---|---|---|
| 00 | | FMO/Assistant FMO (FCC P) |
| 10 | | Administration Division |
| 20 | | Operations Division (FCC M) |
| | 21 | Control Inspection Unit |
| | 23 | Planning and Estimating Unit |

| Basic Code | Subdivision Code | Organizational Components (Functional Category Code) |
|---|---|---|
| | 25 | Production Control Unit |
| | 27 | Material Control Unit |
| | 29 | Facilities Support Contract Unit |
| 30 | | Maintenance and Repair Division (FCC M/P/R) |
| | 31 | Emergency/Service Center--Primary |
| | 32-35 | Emergency/Service Center--Outlying |
| | 37 | Cyclic/Preventive Maintenance Center |
| 40 | | Building Trades Unit (FCC M) |
| | 41 | Carpenter (FCC M/R) |
| | 42 | Furniture Repair (FCC D/S/L) |
| | 43 | Paint (FCC M/P) |
| | 44 | Masonry (FCC M/R) |
| 50 | | Electrical Trades Unit (FCC M/N/P/R) |
| | 51 | Electric |
| | 53 | Refrigeration and Air Conditioning |
| 60 | | Mechanical Trades (FCC M/N/P/R) |
| | 61 | Plumbing |
| | 63 | Sheet Metal |
| | 64 | Machine |
| | 65 | Welding |
| 70 | | Structure/Grounds Service Unit |
| | 71 | Grounds and Labor Pool (FCC M/R) |
| | 72 | Construct. Equip. Operators (FCC M/P/R) |
| | 73 | Motor Vehicle Subpool (FCC M/L/P/R) |

| Basic Code | Subdivision Code | Organizational Components (Functional Category Code) |
|---|---|---|
| | 74 | Refuse Collection (FCC P) |
| | 75 | Pest and Weed Control (FCC P) |
| | 76 | Custodial (FCC P) |
| 80 (FCC N) | | Utilities Division/Utilities Director |
| | 81 | Heat Unit |
| | 82 | Electrical Unit |
| | 83 | Water Treatment Unit |
| | 84 | Sewage Treatment Unit |
| | 85 | Other Utilities (Compressed Air, Air-Conditioning, Gas Plants, etc. Unit |
| | 91-99 | Other Operations (Fire Dept. (FCC P), Energy Monitoring and Control System (FCC N), Environmental Management (FCC P), etc.). |

NOTE:

1. The operations of utilities, including preventive maintenance (PM) and operator inspection, is funded with FCC N while maintenance and repair is funded with FCC M. PM of nonreal property utilities such as window air-conditioning unit will be funded with personal property FCC D or S funds. See MCO P11000.9 for further guidance on cost accounting for utilities.

2. Reimbursable customers will use the appropriate FCC plus a subfunctional category .code "Z".

3. FCC’s M, N, P, and R are described in paragraph 3000.

## SECTION 3: RELATIONSHIPS

### 2300. NAVY-MARINE CORPS RELATIONSHIPS

>1. NAVFACENGCOM. Under the authority delegated by the Secretary of the Navy, the Naval Facilities Engineering Command (NAVFACENG-COM) provides technical services, including engineering assistance and contract administration, relative to RPMA at activities of the naval shore establishment.

2. EFD's. EFD's of NAVFACENGCOM provide technical and engineering support to Navy and Marine Corps installations within their respective geographical areas. Normally, form NAVFAC 11000/7, Engineering Service Request (ESR) is submitted to request assistance.

>3. NAVFACENGCOM Instructions. Activity commanders should follow NAVFACENGCOM instructions only when directed by the CMC. Compliance with requests from EFD's is permitted when the action or information meets one of the following criteria:

a. Vital to implementation of established Marine Corps programs or policy.

b. Necessary to complete technical surveys authorized by Marine Corps directives or specifically approved by the CMC.

c. The result of an activity originated request for specialized services or technical assistance.

>2301. OTHER THAN NAVY-MARINE CORPS RELATIONSHIPS. Commanders of Marine Corps installations are encouraged to maintain close liaison with other DoD components to obtain or provide inter-service support and to enter into cooperative agreements with other Federal, State, and municipal agencies for mutual aid when it is in the best interest of the Government.

### 2302. CUSTOMER RELATIONSHIPS

1. Service Requesting Offices. The term "customer" applies to the following:

a. Occupants or users of activity facilities serviced on a nonreimbursable and reimbursable basis.

b. Activities receiving RPMA support on a reimbursable basis from a lead shop.

c. Tenants receiving service under host-tenant or inter-service support agreements.

2. Customer Cooperation. To enable the facilities maintenance organization to provide timely and satisfactory service, customers should be informed of the procedures they should follow and the priority system for ranking work. (See paragraphs 3207.2 and 3, following.) With regard to family housing, a close working relationship between the housing officer and FMO will result in prompt readying and reconditioning of vacant quarters, thereby reducing vacancy losses. As a minimum, activity directives should mandate that:

a. The title of individuals authorized to sign and approve work requests and requests for cost estimates should be submitted in writing to the facilities maintenance organization and should be updated when redesignations occur.

b. Work requests should be submitted sufficiently in advance to permit the work to be prioritized, programmed, and completed by the time requested.

c. Telephone requests should be accepted only for service or emergency work.

d. Customers receiving services on a reimbursable basis should:

(1) Provide the proper document authorizing reimbursement in accordance with local procedures.

(2) Request inspection of facilities in advance, allowing sufficient time for programming and scheduling. Tenants of Government-owned housing should be informed of the need for control inspections and given advance notice of inspections to ensure access to the facility and to avoid disruptions of inspection schedules.

## 2303. INTRA-ACTIVITY STAFF RELATIONSHIP

1. Supply Officer. To ensure that FM is equipped to accomplish its mission in the most efficient and cost-effective manner, the facilities maintenance organization should establish a close working relationship with the activity supply officer. The supply officer and the activity purchasing and contracting officer are key participants in obtaining necessary FM material support as

discussed in chapter 7 of this Manual. When the FMO uses the supply system as a source of supply, delivery dates need to be specified which coincide with the programmed beginning of the work to avoid over accumulating/long-term stockage of materials.

2. Comptroller. The activity comptroller prepares and maintains financial records and reports. Establishment of job order numbers, codes, and other report symbols should be worked out and agreed upon by the comptroller and FMO. Facilities maintenance should provide the comptroller, in accordance with local procedures, the number of work units of utilities and other services and data required to complete periodic cost accounting reports. Copies of appropriate reports prepared by the comptroller should be provided to the FMO. The FM organization should limit recordkeeping to desk top ledgers for determining the day-to-day status of various fund segments authorized for job support. Other data maintained by the comptroller should not be duplicated. Hence, the interdependence of work responsibilities of the facilities maintenance and fiscal departments requires a cooperative relationship to minimize the recordkeeping of those departments. The comptroller should conduct audits or reviews as appropriate to ensure work is classified under the correct fund source.

3. Data Processing Installation. The FMO should work with the activity data processing officer to obtain support required to assist in automated FM reports.

4. Safety Officer. The FM organization should establish a close working relationship with the activity safety officer. Such a relationship will promote job safety in the working environment and permit timely reviews of planned work to ensure safety considerations.

5. Manpower Officer. The installation manpower and FMO need to work closely together in matters related to executing command compliance with established manage-to-payroll directives.

6. Civilian Personnel Office (CPO). The FMO should develop a close, harmonious relationship with the activity CPO since that office is responsible for all civilian classification and recruitment actions. A special liaison should also exist with the Equal Employment Opportunities Office and Labor Relations Office to ensure compliance with current laws and regulations.

7. Management Analysis, CA/Efficiency Review (ER) and DRIS Offices. The FMO should coordinate with members of the command whose duties include management analysis. Such analyses may include studies developed under the CA and ER programs. Close coordination with the command official responsible for the

DRIS program is essential to identify sources of support obtainable from other activities/agencies and to prepare interservice support agreements.

## 2304. INTRA-FACILITIES STAFF RELATIONSHIPS

1. Motor Transport Officer. Motor vehicles and civil engineer support equipment (CESE) needed for FM operations are generally designated for special assignment on a semipermanent basis, but the vehicles remain under the administrative control of the motor transport officer (MTO). The FMO should cooperate with the MTO to determine and justify the number and types of vehicles essential for FM operations. The MTO'should assist the FMO in exploring ways of obtaining the most economical vehicle and equipment support through means other than ownership such as leasing or rental.

2. Public Works Officer. Officers of the Navy Civil Engineer Corps are assigned to major Marine Corps shore installations to administer engineering functions and construction-type and utility contracts, and to perform other staff duties as assigned by the installation commander. The FMO must maintain close liaison with the PWO to ensure that Marine Corps facilities maintenance personnel keep abreast of proposed design features of military construction line items and to appraise public works personnel of inherent features of a proposed facility that have created excessive maintenance problems in the past.

3. Natural Resources and Environmental Affairs Officer. This office administers the installation's natural resources management programs, regulates pest control operations, monitors pollution abatement efforts, and coordinates the activity's environmental programs. The FMO should keep the natural resources and environmental af fairs officer fully appraised of any FM work that relates to that officer's area of responsibility.

4. Fire Chief. As principal supervisor of the fire department and/or fire prevention section, the fire chief is responsible for the technical development and execution of the installation's fire protection program. Effective management and administration of these elements are considered to be the prime duties of the fire chief. In addition, the fire chief needs to be informed of real property maintenance efforts as they relate to the chief's area of responsibility.

5. Family Housing Manager. It is important that the FMO develop a close relationship with the manager of the installation's family housing assets, since as past experience has revealed a majority of facilities maintenance customer complaints originate with family housing occupants. Except for bona fide emergency calls, all family housing customer requests should be processed through the family housing office. The family housing manager is responsible for prioritizing requests and coordinating scheduling matters.

6. Bachelor Housing. As with family housing, the FMO should establish a coordinating relationship with the installation's bachelor housing manager to assist in the prompt reporting and correction of facilities deficiencies and appropriate action in cases of vandalism and willful damage. In the absence of a centralized bachelor housing complex, the FMO must establish coordinating ties with the designated representative of the commanding officer whose personnel occupy bachelor quarters.

REAL PROPERTY FACILITIES MANUAL

CHAPTER 3

WORKLOAD AND RESOURCE DEVELOPMENT


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REAL PROPERTY FACILITIES MANUAL

CHAPTER 3

WORKLOAD AND RESOURCE DEVELOPMENT

SECTION 1: WORK SCOPE AND MAINTENANCE STANDARDS

## 3100. FACILITIES MAINTENANCE ORGANIZATION FUNCTIONS

1. *RPMA*. RPMA is identified in the naval established resources management system (RMS) under FCC's M, N, P, and R. For the purpose of this Manual, RPMA costs apply to undertakings of the facilities maintenance organization. The work may be performed in-house or by contract and includes services performed on a reimbursable as well as nonreimbursable basis. With the exception of construction meeting the criteria of line items in a military construction program, RPMA includes projects which are within or beyond the activity commander's approval authority. (See MCO P11000.5 for the regulations governing real property facilities projects that exceed the activity commander's approval authority.) Briefly, costs of RPMA include labor, material, hourly use of equipment, and contracted services grouped by FCC's as follows:

a. FCC M. Maintenance and repair of all buildings, grounds, paved surfaces, utilities systems, and other real property facilities, including standby or excess military real property. Also includes those support services performed in conjunction with in-house maintenance and repair efforts.

b. FCC N. Operation of utilities systems, including utilities purchases.

c. FCC P. Other engineering support services, such as maintenance and public works administration and engineering, custodial, janitorial, entomology, refuse collection and disposal, fire protection services, and environmental control.

d. FCC R. Minor construction, improvements, and alterations.

2. Work Support for Personal Property. The facilities maintenance organization is normally not responsible for services to personal property, as distinguished from real property or installed equipment, which is not included in the term RPMA. Work support, if required, will not be charged to RPMA funds.

## 3101. MAINTENANCE AND REPAIR CLASSIFICATIONS

1. Importance of Maintenance. The importance of proper maintenance cannot be emphasized too strongly because of its favorable effect on the BMAR. With proper facilities maintenance, deterioration can be forestalled, the useful life of facilities extended many years, and annual costs over the life of the facility reduced.

2. Types of Maintenance. There are two broad types of maintenance effort. Both types involve work which is corrective or protective in nature and can be estimated using EPS. One is work performed on a facility as a specific job having a beginning and an end. The other is work performed on a facility or group of similar facilities on a continual basis with no definite beginning or end to the effort and is kncwn as a standing or recurring job.

a. Specific Maintenance. Specific maintenance is that type of work performed and accounted for under the authority of a specific job order. As such, a detailed plan, estimate, and schedule are required prior to job start; otherwise, uncontrollable cost and inefficiency may be expected. This type of work may recur over a given cycle but is not of a continuing nature for a particular facility. Examples are:

(1) Exterior and interior painting of buildings.

(2) Sealcoating or overlaying up to 2 inches of asphaltic pavement.

(3) Replacing joints in concrete pavements.

(4) Patching and coating roofs.

(5) Testing and replacing oil in electric switchgear and transformers.

b. Continual Maintenance. Continual or cyclic maintenance is that work performed and accounted for on a facility or a group of facilities on a standing job order or open-end contract basis. This work is repetitive in nature and extends throughout the year or seasonal portion of the year. Examples are:

(1) Emergency and service work.

(2) Grass cutting.

(3) Preventive maintenance of electrical and mechanical equipment and cyclic maintenance of facilities.

(4) Sweeping/vacuuming airfield pavements.

c. In-house forces work priority should be in the following order:

(1) Emegency work.

(2) Preventive/cyclic maintenance.

(3) Service work.

(4) Specific work requests.

(a) Major repair jobs.

(b) Construction projects.

3102. MAINTENANCE STANDARDS

1. DoD Maintenance Standards. The maintenance standards established by the DoD upon which Marine Corps standards shall be determined are:

a. Facilities to be used for more than 10 years shall be maintained, as necessary, to preserve the asset and to ensure their most economical and efficient usefulness for an indefinite period.

b. Facilities to be used from 3 to 10 years shall be given maintenance consistent with the projected useful life of the structures or programs to which they are related.

c. Facilities to be used for less than 3 years or only to meet a temporary demand shall be maintained to the minimum acceptable standard without jeopardizing the health and safety of personnel or seriously impairing the accomplishment of the mission.

d. Inactive facilities included in mobilization plans shall be maintained to the extent necessary to assure weather-tightness, structural soundness, and protection against fire and erosion, and to permit reactivation in the period prescribed.

e. Maintenance and repair work, whether performed by contract or in-house personnel, shall be in accordance with applicable Federal, military, or other authorized specifications. All work performed and material used shall be inspected, tested, or otherwise certified for compliance with the provisions of those specifications.

f. All maintenance and repair efforts shall include specific consideration of energy conservation methods and systems. All repairs involving replacements shall include energy conservation requirements.

2. Navy Standards. Activity commanders should use the maintenance standards published by the NAVFACENGCOM. General maintenance inspection standards are provided in NAVFAC MO-322 (Inspection of Shore Facilities). Of particular note in MO-322, volume 1, chapter 2, is how facilities category codes can be effectively used to establish inspection and maintenance plans.

Maintenance inspection standards by facility units are detailed in Volume 2. Technical recomendaticns for perforining specific and continual maintenance are contained in NAVFACFNGCOM publications in the MO-lOO to 322 series. (See appendix A3.)

4. Manufacturers Standards. Manufacturers operations and maintenance manuals should be reiewed to determine maintenance/ Service requirement applicable to their materials and equipment.

## 3l03. MAINTENANCE POLICY

1. General Information. It is the policy of the Marine Corps to maintain its real property in the most efficient and cost effective manner. To achieve the goals encompassed by this policy, activity facilities maintenance organizaticns perform specific and continual maintenance on a periodic basis which:

a. Guards facilities against more costly repairs.

b. Extends the useful life of the facilities.

c. Reduces annual costs over the life of the facilities.

d. Permits an orderly development cf workload and allocation of resources.

2. LRMP. The expression of the total maintenance and repair workload and associated resource requirements is most effectively achieved using the LPMP which:

a. Expresses Department of the Navy, manufacturers, and activity maiatenance standards in terms of specific and continual maintenance workload.

b. Incorporates deficiencies and requirenents generated by inspection and customer inputs into workload.

c. Describes the total workload in terms of work years and thus is useful in long-term resource planning and scheduling.

d. Converts workload into resource requirements.

e. Aids in the decisionmaking process on the manner of work accomplishment; e.g., by station forces or through commercial contract.

3. Workload. The LRMP generates the maintenance workload using the following (see appendix A4):

a. Specific and Continual Maintenance. Based on guidance in NAVFAC MO-1OO through MO-311 (appendix A3) and NAVFAC P-700 series and manufacturer's operations and mainteriance manuals. This guidance when-tempered with DoD maintenance and activity standards guards against too much or not enough maintenance.

b. Controlled Inspection. Establish a program to identify all facilities requiring maintenance and repair work over a 5-year period using MG-322 (Inspection of Shore Facilities) and the activity real prcperty inventory provided annually in NAVFAC P-l64 (Detailed Inventory Of Naval Shore Facilities)

c. Customer Work Request. Factors in work generated from specific requests and allows for depicting that portion of the workload performed on a reimbursable basis.

d. Operations Overhead. Displays appropriate personnell support to accomplish the maintenance and repair requirements. The personnel may perform tasks such as inspection, planning and estimating, scheduling, work reception, and contract administration.

4. Allocation of Resources. Allocate sufficient resources to operations overhead (the work reception, inspection, planning and estimating, maintenance service contracts and scheduling units of the organization). High quality personnel must be assigned to these units, and they must be supported with the latest available equipment. The authority of these units must be commensurate with their high levels of responsibility.

5. Control and Feedback. Because it facilitates control and feedback, deviations from quarterly, weekly, and daily schedules must be tightly controlled. Feedback on actual performance must be timely and accurate. Variations from plans, schedules, and estimates must be promptly investigated and corrective action taken immediately.

6. Resources. The LRMP can readily translate the total maintenance and repair workload into total requirements for resources (e.g., personnel, equipment, material, and funds) to support performance by either station forces or contract over the 5-year plan period.

7. Variance Analysis. Maximum use of EPS's in plans, programs, and schedules helps to accomplish specific and continual maintenance and repair work in the most efficient and cost effective manner. Close examination of annual programs and quarterly,

weekly, and dailY schedules helps to monitor goal accomplishment. Feedback on actual performance must be timely and accurate to enable prompt investigation and corrective action on variances in plans, programs, schedules, and estimates.

# CHAPTER 3

# WORKLOAD AND RESOURCE DEVELOPMENT

## SECTION 2: WORKLOAD DEVELOPMENT

3200. INSPECTION SYSTEM. Facilities inspections are the primary generators of maintenance and repair of real property work. Inspections monitor current programs, identify deficiencies, and initiate corrective action to keep real property at or bring it up to the desired activity standard. The inspection effort should be planned, scheduled, and systematically performed on an annual basis by qualified inspectors and operators properly equipped. A well designed system should contain four distinct inspection programs: Annual Control Inspection, Preventive Maintenance Inspection, Cyclic Maintenance Inspection, and Operator Inspection.

3201. ANNUAL CONTROL INSPECTION PROGRAM (ACIP)

1. The ACIP is at the heart of the inspection system. The program integrates data from control inspections (including specialized) with feedback from preventive, cyclic, and operator inspections into the long-range maintenance and annual work plans. A comprehensive ACIP is required to identify the activity's total requirements.

2. Schedule control inspections of facilities to:

a. Assess the effectiveness of current maintenance programs.

b. Determine their physical condition.

c. Record, cost out, and establish timeframe for correction of maintenance and repair deficiencies.

d. Update the real property inventory.

3. Base the control inspection schedule on experience and engineering judgment applied to frequencies, timetables, and other guidance contained in MO-322, volume I. Use the services of other agencies or outside consultants, where in-house capability is lacking or not cost-effective, to perform inspections on specialized systems and components.

3202. PREVENTIVE MAINTENANCE INSPECTION

1. The PMI's are scheduled examinations, minor adjustment and repair to equipment and systems to which an operator iS not assigned. The PMI should be performed on equipment and systems that, if disabled, would:

a. Interfere with essential operation of the field activity,

b. Involve high cost or long lead-time for replacement, or

c. Endanger life or property.

2. Results of PMI's are forwarded to inspection personnel who review reported deficiencies, initiating further action as required, develop preventive maintenance checklists (based on EPS), and evaluate the effectiveness of the PMI program.

3203. CYCLIC MAINTENANCE INSPECTION (CMI)

1. CMI is the scheduled inspection and immediate repair of recurring minor structural, electrical, or mechanical items in high-use structures where such efforts are proven to be eccnomical. CMI is limited to that which can be accomplished with simple handtools and within 30 minutes per task. Examples would be:

a. Tightening hinges.

b. Replacing faucet washers and shower heads.

c. Replace electrical switches.

2. Results are provided to inspection personnel who initiate further action to report deficiencies which cannot be repaired.

3204. OPERATOR INSPECTION, (OI). OI's are the day-to-day or periodic examination and minor adjustment of equipment and systems to which a specific operator is assigned. Frequency and details of the inspections should be developed and detailed in standard operating procedures for the operator. Deficiencies beyond the capacity of the operator should be reported to the inspection unit.

3205. LONG-RANGE MAINTENANCE PLAN

1. Description. The LRMP in a forecast of all work required to maintain and repair the facilities of the shore activity in accordance with the maintenance standards and policy established by section 1 of this chapter. The plan wall cover 5 years, beginning with the current year. The plan will be a statement of total requirenents and will be unconstrained by the availability of personnel or monetary resources. The main body of the plan will be prepared in a format similar to that shown in appendix B1, shall contain an entry for each line item on the machine printout of the read property inventory, and shall reflect all specific and project work required (both maintenanc and repair) for each facility over the 5-year period. The plan shall detail those items of continual maintenance chargeable to FCC M and those overhead items chargeable to FCC M which are required to support the work shown in the main body. Included in the plan will be a component element depicting the activity's master demolition program.

2. Plan Developnent. The LRMP will be prepared in the suggested format and in accordance with the instructions provided in appendix B1. The completed plan shall be retained locally but shall be available for review by authorized staff representatives of Headquarters Marine Corps.

a. The operations unit is responsible to develop and update the LRMP. Therefore, the facilities maintenance officer shall ensure that the operations unit is provided with a copy of each current machine printout of the real property inventory (NAVFAC P-164). The operations unit will physically check the accuracy of the real property record as required by NAVFAC MO-322.

b. Each facility constituting the current real property inventory is listed as a separate line item. Line items for exterior facilities, such as grounds, paved areas, and utilities distribution systems, shall represent segments of the total facility manageable for work accomplishment. Reimbursable customer assets such as family housing should also be presented in the master LRMP.

c. Each line in the plan or its revision (except for emergency work) shall show the estimated cost of specific continual maintenance, work requested by customers on a reimbursable basis and repair deficiencies noted during the annual control inspection. The inspector should:

(1) Check the cost effectiveness of continual and specific maintenance efforts by weighing the costs of periodic maintenance of facilities components against the costs of repair or replacement.

Adjust maintenance cycles where additional economies can be attained.

(2) Find out the present condition of the facility. Write up existing deficiencies which are not economically correctable through maintenance. Prescribe the remedy and estimate the cost, of repair for inclusion in the current year of the activity's annual work plan.

(3) Anticipate future facilities deficiencies which, after all maintenance efforts have been expended, may be expected to require repair in the 4 ensuing years of the LRMP. Use rates of deterioration based on construction standards, manufacturers warranties, engineering evaluations, and historical experience in making this determination.

(4) Describe work and estimate costs of deficiencies described in paragraphs 3205.2c(2) and (3), preceding, on the inspection report form NAVFAC 11014/38 (Rev 9-27). (See paragraph 4100.lb, following.)

(5) Group separate line items for each reimbursable customer, including family housing.

(6) Developed cost estimates should be for the current year and not necessarily the year posted for correction. In the annual update of the LRMP, the costs will be escalated to reflect the then current year.

3. Plan Updating. The long-range maintenance plan shall be completely updated annually. The first year of the old plan should be deleted and 1 year added to complete the 5-year span covered. Those deficiencies included in the first year of the old plan which remain unfunded at the end of the first year because of a lack of sufficient resources shall be listed on the BMAR report. (See paragraph 5200, following). The first year of the new plan is the activities annual work plan for the current year. It will include Code 2 requirements contained in the activities projects plan current (first) year submission to Headquarters Marine Corps (see paragraph 5200, following). Likewise, the second year (budget year) includes requirements contained in the activities Projects Plan 2d (forthcoming) year submission to CMC. Pictorial representation of the relationships between activity and Headquarters Marine Corps plans and programs, BMAR and projects plans development, and current year annual work plan requirements are provided in appendixes A5, A6, and A7.

## 3206. PLANNING WORK COMPONENTS AND FUND SUPPORT

1. Work Components. Giving full consideration to work performed both on a nonreimbursable basis, the facilities maintenance

officer must determine the scope of the following resources required to accomplish a planned workload within a designated period of time:

a. Labor. Within the personnel policies and criteria set forth in paragraph 1200, preceding, personnel requirements must be meticulously planned to ensure that the work force can be supported with anticipated funds. The T/O for the facilities maintenance organization should be adjusted to balance work forces with workloads, bearing in mind the work that can be effectively performed by contract. Unusual or one time efforts in terms of numbers of workers or work skills will normally be accomplished by contract or temporarily hired employees.

b. Materials. Facilities maintenance organization funds must be obligated for all materials and installed equipment (class 2) necessary for RPMA functions when the materials are ordered, except for those materials carried in the local stock fund inventory (see the current edition of MCO 4443.9, Local Retail Stock Fund Inventory). Careful planning of both quantities and delivery date is necessary to ensure optimum use of funds and to provide the journeymen with materials when needed.

c. Equipment. Quantities and types of tools and mobile equipment to be purchased should be determined by facilities maintenance management. Because tools and equipment needed for each work segment must be evaluated separately, criteria governing use or cost cannot be applied across the board. In determining quantities, remember that purchasing an oversupply or seldom used specialized tools and equipment is economically impractical. Alternatively, when purchase is impractical, the renting of equipment or contracting the job for which the equipnent is needed should be considered. Union contracts should be negotiated where personal handtool purchase is the responsibility of the journeyman.

2. Fund Support

a. In planning fund support for the work components set forth in paragraph 3206.1, the facilities maintenance officer shall consider requirements for reimbursable as well as nonreimbursable work comprising RPMA. Such fund support is obtained through annual budget allotments or by specific sums for authorized projects which exceed the approval authority of the activity commander. (Regulations governing facilities projects requests are contained in MCO P11000.5.)

b. Work performed (customer services) which cannot be categorized as RPMA must be financed from other than RPMA funds.

c. On the whole, when planning fund support, the facilities maintenance officer may assume that requirements will remain relatively stable from year to year but may be subject to anticipated increased wage rates, increased material costs, changes in the number of existing facilities, or revised missions of the activity.

d. Effective planning requires the use of worksheets showing a breakdown of expense elements and patterning the format of budget submissions (i.e., anticipated number of hours (military and civilian); costs of military services, civilian labor, material and supplies, commercial contracts, and other (equipment rental); and total expenses). Fixed work units (e.g., square feet, square yards, acres, etc.) will be inserted by the comptroller in budget estimate submissions. However, cumulative work units (e.g., 1,000 gallons, kilowatt hours, cubic yards, etc.) shall be added to the appropriate line item of the worksheets. Data sources on which determinations should be based are as follows:

| FCC | Planning Data Source |
|---|---|
| M | Continual Maintenance. Historical cost and performance data retained in the files for emergency/service tickcts and estimated standing jobs such as preventive maintenance. |
| | Specific Maintenance and Repair. Information contained in |
| N | Utilities Operations. Historical costs and utilities |
| P | Other Engineering Support. Historical cost and performance data retained in the files of the organizations accommodating functions included. |
| R | Construction. Current backlog file of word requests for construction. |

3207. DEVELOPING WORKInG INCREMENTS

1. Programmed Work. When the amount of funds authorized in the activity's financial plan is known, work programs shall be developed.

(See appendix B2.) The scope of the programmed work should approximate 100 percent of the available resources, the remainder being a reserve for nonprogrammed work; i.e., emergency work and unknown specific jobs. The facilities officer signed program document is the prelimirary authorization for known work (in priority order) to be undertaken by the facilities maintenance organization during the period covered by the program. It shall be retained locally and made available for review by staff representatives of Headquarters Marine Corps.

a. Annual Work Program

(1) The fund requirements shown on the worksheets described in paragraph 3206.2, preceding, shall be translated into a work program covering undertakings supported with funds allotted to the facilities maintenance department under FCC's M, N, P, and R, together with customer services to be supported with other fund sources. Specifically, the program shall reflect prioritized selections of specific maintenance and repair shown for the first year of the long-range maintenance plan (the annual work plan) and anticipated requirements for continual maintenance, utilities operations, other engineering support, and minor construction which can be undertaken with the resources that will be available for the oncoming fiscal year. Programmed work should include that which is directly fundable as well as reimbursable work.

(2) The annual work program for the oncoming fiscal year shall be completed in time for inclusion in the activity's annual budget submission (presently due in the third quarter of the past year). It should be updated after receipt of the activity's expense operating budget.

(3) Engineering judgment is needed to compile the program. Bearing in mind that workloads must be equalized among work centers, judicious considerations must be given to that work which will be accomplished by the activity's forces and to that by commercial contract.

b. Quarterly Work Program. The quarterly work program serves as the parameter for planning, estimatIng, and scheduling individual jobs. In developing the quarterly program from the annual work program, the operations officer must apply a higher degree of programming proficiency. The operations officer's selection must be based on seasonal conditions, timely provision of material requirements, adequecy of funds and work forces, anci priority of accomplishment. The qqarterly work program parallels the format of the annual work program. The differences are as follows:

(1) The content covers the oncoming quarterly period.

(2) Entries for hours and total costs may be consolidated for standing job orders to avoid the quarterly duplication of those listed in the annual work program.

(3) The quarterly work program should be compiled no later than 30 days before the beginning of the quarter.

2. Program Priorities. Prioritizing of work requirements is essential to the orderly development, scheduling and execution of

activity work programs and ensures the best use of manpower and funds. Using elements similar to those described in MO-321, chapter 6, or items II, III, IV, and V of figure 5-1 of this Manual, establish an activity priority system which ranks the relative importance of each job with other jobs in the work program or schedule.

3. Nonprogrammed Work. Work which has not been programmed shall be held to a minimum. Customers should be informed of the activity priority system and encouraged to plan the volume of unanticipated work to be considered for incorporation in a quarterly program. Emergency work shall be given a high priority, and programmed work of lower priority shall be deleted from the program. Unprogrammed work which is not emergency in nature should replace programmed work only after high ranking is attained through application of priorIty system criteria.

REAL PROPEPTY FACILITIES MANUAL

CHAPTER 4

# JOB PROCESSING AND CONTROL SYSTEMS


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# CHAPTER 4

# JOB PROCESSING AND CONTROL SYSTEMS

## SECTION 1: JOB ORIGINS

### 4100. GENERAL INFORMATION

1. Applicability. Jobs accomplished or controlled by the facilities maintenance organization are generated by actions and documents as set forth in this section.

2. Workflow Diagram. The work sequence and flow of job documents processed by the facilities maintenance organization are illustrated in appendix B3.

### 4101. JOB ORIGIN DOCUMENTS AND RELATED INSTRUCTIONS

1. Inspector's Reports. Form NAVFAC 9-11014/38 (Inspector's Report) (see appendix B4) shall be prepared for each deficiency detected during scheduled control inspection of the facilities. Control inspection of all real property facilities shown as line items in the long-range maintenance plan shall be inspected by qualified personnel of the inspection unit of the operations division, as follows:

a. From the inventory shown in the long-range plan, the inspector shall compile a list of the facilities scheduled for the next inspection and shall review the specific maintenance and repair deficiencies earmarked in the plan.

b. The inspector shall verify the recorded deficiencies; inspect all scheduled facilities; and prepare form NAVFAC 9-11014/38, showing a rough cost estimate for the work required. (The reports for deferred deficiencies become the supporting documents for updating the long-range plan.) The reports have an attached job order continuation sheet (see paragraph 4304, following) containing a sketch or diagram of the location and scope of the work required as well as data essential to plan and estimate the job. If local procedures require it, the inspector may prepare a work request to cover a number of completed forms NAVFAC 9-11014/38.

2. Standing Job Orders. (See paragraph 4302, following.) Standing job orders shall be prepared in detail by the planning and estimating unit using EPS's to cover continual maintenance requirements.

Although the nature of such work remains relatively constant, the scope and frequency should be reviewed from time to time to ensure that adequate service is provided and that excessive service is avoided. Additionally, continual maintenance requirements should be reviewed to ensure that newly acquired facilities are included in work programs. Standing job orders shall not normally be established solely for cost collection, except in the case of emergency/service work.

3. Work Request. Form NAVFAC 9-11014/20 (Work Request) (see appendix B5) shall be prepared by customers requesting normal services (excludes emergency work) and, if the procedure is established locally, by the inspectors to cover inspectors' reports. A local numbering system should be designed to identify the customer and the sequence of the customer's submitted form. Activity published instructions should provide the customer with the telephone number of the work reception unit to be called if emergency work is needed and with information on the preparation of work requests and lead times normally needed to procure material. Form NAVFAC 9-11014/20 shall be processed as follows:

> a. Reception Processing. The reception clerk of the produc- control unit shall date-stamp and check the submitted form for correct preparation and signature and, depending on the scope and nature of the job, shall process the request as follows:

(1) Work Involving 2-Man Days or Less. An emergency/ service ticket (see paragraph 4302.4, following) should be prepared and forwarded to the emergency service work center for all work requiring 2-man days or less. When the job requires special work center tools or skills, the emergency/service ticket should be forwarded to the center best equipped or staffed to perform the job. The reception clerk shall enter the standard hours (EPS) from NAVFAC P-705.0 (Emergency Service Handbook) on each emergency/ service ticket.

(2) Maintenance and Repair Over 2-Man Days. A work request for maintenance and repair involving over 2-man days should be routed to the operations officer for prioritization and possible inclusion in a current work program and, if not included, shall be planned, estimated, and incorporated into a future work program as a specific job undertaking.

(3) Work Requests for Material Only. Occasional requests for small quantities of material to support a self-help program may be authorized by preparing and forwarding a service ticket to the material issuing office. Requests for large quantities of material (e.g., paint) for self-help support should be forwarded to the operations officer for approval; and, if approved, the operations officer shall route the request to the planning and estimating unit for the preparation of a job order.

(4) Telephone Requests. Only requests for emergency or service work should be accepted by telephone unless a computer system is in operation; then, the local operating orders of the command shall apply. The reception clerk shall relay the request by telephone or other rapid media to the appropriate work center and then prepare and forward the service ticket to confirm the oral request. (For emergency work exceeding 2-man days, see paragraph 4302.4a.)

(5) New Work Requiring Over 2-Man Days. A work request for new work shall be routed to the planning and estimating unit for the preparation of rough cost estimates. Work estimated to exceed 2-man days normally is held for approval of a review board. The board may consist of the facilities maintenance officer, public works officer, G-4 member, comptroller, etc., and should meet not less frequently than once a quarter and no more frequently than once a month. Approved requests should be processed to the public works officer for contract preparation or returned to the planning and estimating unit for preparation of job orders showing final cost estimates.

b. Closing Work Requests. Approved work requests shall be incorporated in a work program; those disapproved should be returned, with reasons for the rejection, to the originator within 30 calendar days.

c. Filing Completed Work Request. See paragraph 5101.2.

d. Work Request Status Report. In order to preclude numerous calls to maintenance management personnel, a system of monthly reports showing assigned priority and estimated starting and completion dates should be provided to customers on all approved customer generated specific jobs. Customers should also be informed of the status of all customer generated emergency/service work not completed 10 working days after receipt.

4102. SPECIALIZED INSPECTIONS. Inspection of installed equipment, such as boilers, elevators, and unfired pressure vessels, because of threat to safety when operationally defective, requires specially trained inspectors to detect mechanical and operating deficiencies. Facilities maintenance organizations staffed with such specialists may conduct such inspections under standing job order authorizations. Activities not having such specialists shall complete form NAVFAC 11000/7 to request the services of the cognizant Marine Corps activity or EFD of the NAVFACENGCOM to perform the inspection as prescribed in NAVFAC MO-322.

# CHAPTER 4

# JOB PROCESSING AND CONTROL SYSTEMS

## SECTION 2: JOB PLANNING AND ESTIMATING

4200. PLANNING AND ESTIMATING PURPOSES. Planning and estimating are performed sequentially or singly, depending on the job requirement, to:

1. Predetermine the work centers, material, and equipment required and the manner and sequence to accomplish a job. A job plan frees work center supervisors to devote more time to job supervision.

2. Determine the number and cost of the hours and the cost of material and equipment required to accomplish the job. Historically, hourly estimates are needed to schedule jobs effectively and evaluate the productivity of the work forces.

3. Prepare final estimates for standing job orders and rough estimates for future work programs and work requests. (See appendix B6.)

4201. JOB PLANNING AND ESTIMATING PROCEDURES. Except for emergency/service tickets and work requests for small quantities of material for self-help programs, all job origin documents described in paragraph 4101, preceding (i.e., inspectors' reports; standing job orders; and work requests for maintenance, repair, new work requiring over 2-man days, and for large quantities of material only), generate the workload of the planners/estimators. In addition work requiring less than 2-man days but requiring material having a long leadtime requires rough cost estimates of the material.

4202. ENGINEERED PERFORMANCE STANDARDS

1. EPS's Manuals. An EPS designates a standard number of hours normally required to accomplish the job. NAVFACENGCOM-published technical manuals in the NAVFAC P-700 series provide such hourly standards for approximately 70 percent of the jobs undertaken by the facilities maintenance organization including standing jobs, service work, and specific jobs.

2. Training. To ensure accurate and uniform application of EPS, planners/estimators must obtain special training offered by

the NAVFACENGCOM. MCO.4856.2 (Engineered Performance Standards, Facilities Maintenance) details training sites, frequencies, and points of contact for the prescribed training.

3. Application of EPS's. Planners/estimators should be guided by the available EPS's to the maximum extent possible for standing jobs and for specific jobs. When 75 percent or more of the total hours estimated for a job has been determined by applying EPS, the covering job order shall be coded to indicate EPS application.

4. Utilization of EPS. Utilization of EPS is a subject of specific congressional interest. Utilization includes not only the application of EPS but the use of EPS in scheduling, productivity enhancement, and as the basis for summary reports to management. EPS utilization visits are conducted at each major Marine Corps activity to monitor the use of EPS per MCO 4856.2. Increased utilization is monitored by higher authority1 and progress will be expected. Industrial engineering assistance is available from the CMC (LFF) upon request for any program to increase EPS utilization.

## 4203. JOB PLANNING AND ESTIMATING GUIDANCE

1. Renewal of Standing Job Orders. The scope, work units, and frequency of tasks covered by annual standing job orders should be reviewed continuously for compatibility with current requirements. High cost and seasonal standing job orders should be issued for a specified period, 1 year or less, and reviewed as needed.

2. Opening Specific Job Orders

a. Job order continuation sheets, showing job plans prepared by inspectors during control inspection, shall be detached and made a part of the covering job order. Only hours and cost estimates need be added to the continuation sheet. (See appendix B7.)

b. All specific job orders should be planned, estimated, and scheduled in detail to ensure maximum productivity and benefit to the United States Marine Corps.

3. Miscellaneous Planning and Estimating Instructions

a. Rough Estimates. Rough estimates should be provided for unfunded minor construction and reimbursable work requests.

b. Lead Shop Designation. Whenever a job involves more than one work center, the planner/estimator shall designate one of the work centers as the lead shop. The lead shop shall coordinate the accomplishment of the job, in accordance with the master schedule.

c. Cost Application. Cost estimates should be expressed in whole dollars and applied as follows:

(1) Labor. Labor costs shall be computed at the average wage of the applicable work center and accelerated by the percentage specified in the NavCompt Manual, volume 3.

(2) Material. Material costs shall be based on the price of the item listed in the appropriate supply catalog.

(3) Equipment. Thc cost of equipment shall be accumulated to Work Center Code (WCC) 72 or 73 and shown in the column headed "equipment rental" of the job order form. The hourly rates listed in NavCompt Manual, volume 3, chapter 5, shall be used to compute the cost estimates.

d. Amendments to Job Orders. Amendments to cover a change in scope shall be planned and estimated similarly to that for the original job. All changes to the original job design should be documented by an amendment.

e. Job Order Data. The planner/estimator shall complete applicable blocks of the job order form and route the order to the administrative division for recording other accounting data.

4. Material Requirements. Planners/estimators shall prepare bills of material which shall be forwarded with the estimated job orders through the chief planner/estimator to the facilities maintenance officer or his/her representative for approval. Material for specific job orders shall be ordered by the production controller.

# CHAPTER 4

# JOB PROCESSING AND CONTROL SYSTEMS

## SECTION 3: JOB AUTHORIZATION AND WORK CLASSIFICATION

### 4300. GENERAL INFORMATION

1. Job Authorization. Each job, including emergency/service work, performed by the facilities maintenance organizaticn must be charged against a standing or specific job order as authorized by thc facilities maintenance officer or designated representative. Each job order described in paragraphs 4302 and 4303, following, shall contain a job order number, details of the job, and the estimated requirements of hours and costs of labcr, material, and equipment chargeable to each work center designated to perform the work. Job orders and job order continuation sheets may be prepared to conform with the suggested formats and instructions contained in appendixes B6 and B7.

2. Cost Collection

a. General Information. The job order is the authorized document for the collection of pertinent data and actual costs by related accounting classifications for the work authorized. A copy of the authorized job order is a notice to the comptroller that it is open to accept charges.

b. Automatic Data Processing Cards. Instructions for formats and input. data required for automated data prccessing (ADP) are provided in the current edition of MCC P7300.10 (Mechanized Procedures for Selected Marine Corps Posts and Stations).

c. Labor. Labor distribution card data shall be recorded daily and submitted to the comptroller in accordance with activity established procedures. Labor distribution cards are required for all assigned civilian and military personnel.

d. Material. Material costs are accumulated from supply issue documents as prescribed locally.

e. Equipment. Equipment rental costs shall be computed at the hourly rates prescribed in NavCompt Manual, volume 31 chapter 5. WCC's 72 (construction equipment operators) and 73 (motor vehicle subpool) have been established for cost collection purposes even though another activity component may have jurisdiction over

such operations. Hourly rental costs for administrative use of motor transport vehicles shall be charged to WCC 73, irrespective of the work center that actually used the vehicles. Hourly rental costs for use of all other mobile equipment (construction, street cleaning, trash collection trucks, etc.) used by the work centers, together with the operators' time, shall be charged to WCC 72, with the exception of time spent in driving "U-drive" type vehicles. Such transit operation time is chargeable to the work center to which the employee is assigned. Equipment rental costs are required only for jobs charged to the maintenance floor and for reimbursable jobs.

4301. JOB ORDER NUMBER. The job order number is an accounting method to associate costs with work accomplished. The facilities maintenance officer or his/her representative shall assign a serialized number to each job order in accordance with the system prescribed in MCO P7300.10 and as prescribed by the activity's comptroller.

4302. STANDING JOB ORDERS

1. Applicability. A separate standing job order shall be prepared annually or more frequently, depending on local discretion, for each type of repetitive job; e.g., emergency or service work, janitorial services, garbage collection and disposal, grass cutting, etc.

2. Estimated Standing Job Order,. All standing job orders shall be planned and estimated, utilizing FPS, when the task, scope, and frequency can be identified. The plan is a statement of the who, when, where, and how task is to be performed. The estimate is normally a numerical designation of quantity in hours and dollars and a listing of materials. Job orders which can provide this degree of detail will be classifIed as estimated.

3. Unestimated Standing Job Order. In some instances, the scope or frequency of work cannot be determined at the beginning of the year; and such work is classified as unestimated. Emergency and service work fall in this category. Labor and material cost are not estimated directly but may be obtained from historical records and review of completed work tickets. Unestimated standing job orders do not directly authorize work. Work tickets written against the unestimated standing job orders are the work authorizations. Except under very unusual circumstance no work other than emergency or service work should be covered by unestimated standing job orders.

4. Limitations of Emergency/Services Work Tickets. (See the suggested format provided in appendix B8.)

a. Emergency Work. Emergency work shall be authorized by a emergency/service ticket and accomplished by the designated work centers. Jobs authorized by emergency/service tickets shall be charged to a standing job order. However, when the on-site service reveals a requirement for more than 2-man days, only that work necessary to temporarily alleviate the deficiency shall be charged to the standing job order. The remaining work shall be charged to a specific job order issued for that purpose; however, the total job hours expended by the work centers involved shall be charged to Work Generator Code 01. (See paragraph 4400.2a, following.)

b. Service Work. Work requiring more than 2-man days of labor, or more than two work centers may be accomplished on service tickets when local SOP's are published to that effect. These tickets must be authorized by the operations director. Examples of this type of work might be emergency utility distribution repair, changes of occupancy, landscape work, etc. Jobs authorized by service ticket are chargeable to standing job orders. Managers shall avoid issuance of emergency/service tickets solely to increment or divide a job to circumvent issuance of a specific job order, as this method of work accomplishment is not cost effective.

5. Material Requirements. Material required for jobs accomplished under the authority of standing job orders normally are obtained for work centers by the production controllers of the maintenance and repair division or operations division. (See paragraph 4600.3, following.) Jobs requiring substantial material orders should be written as specific vice standing jobs.

4303. SPECIFIC JOB ORDERS. A specific job order shall be issued to authorize each single undertaking for which a starting and ending date can be determined and for which separate cost data is required. Specific job orders require detailed plans, estimates, and schedules. The scope of the job must exceed the limitations of emergency/service work described in paragraph 4302.4, preceding.

4304. JOB ORDER CONTINUATION SHEETS. The job order continuation sheet shall be used whenever the job elements are too voluminous to record on the basic job order. In such cases, only the summary description need be recorded on page one of the job order. Generally, when a continuation sheet is needed, the job will be scheduled; and the job order continuation sheet serves for the compilation of weekly schedules as described in appendix B7.

4305. JOB ORDER AMENDMENTS. A job order-may be reissued bearing the same serial number for the following:

1. Scope of Work. When specific maintenance or repair is not totally visible during control inspection (e.g., concealed wiring), the magnitude of the work is not revealed until work begins. In such instances, the planner/estimator shall issue an amendment superseding the basic order, revising the description narrative as well as the estimated hours and cost data. Amendments shall not be issued to adjust poor estimates or time differences because of delay or temporary unsatisfactory work conditions. Deviations of estimates which arise from avoidable situations should be reviewed for possible correction.

2. Accounting Data. A job order may be reissued to change accounting data required for mechanized processing. (See appendix B6.) Changes to the job order headings may be made in pen and ink.

4306. COMPLETED JOB ORDERS

1. Closing Job Orders

a. Specific job orders must be closed promptly after the work is completed. To ensure that Maintenance Management Report No. 3 is issued immediately after physical completion of the job, there are two closings: the first, when all labor has been applied to the job, and the second, when all late material and other charges have been lodged against the job. The comptroller and data processing installation shall be provided, weekly, with a listing of physically completed jobs. If it is desired to keep one or more of the jobs open to receive late charges, the listing should be annotated to reflect that desire. To ensure prompt analysis of variances from EPS labor estimates, Maintenance Management Report No. 3 should be issued within 5 working days after receipt of the completed job order listing. In the case of scheduled jobs, the scheduler shall maintain a suspense file of job completion dates and, when each date is reached, shall follow the "closing" procedure. If the job is not completed by the scheduled date, the work center concerned shall justify a time request and extension before the closing date.

b. Standing job orders which cover one fiscal year are automatically terminated by the comptroller at the close of the fiscal year. Those that cover a shorter period shall be closed similarly to specific job orders.

2. Filing Job Orders. Upon conpletion of the job, the job order shall be annotated and placed in a facility history file or customer file. (See paragraph 5101, following.)

4307. UNCOMPLETED JOB ORDERS. Prior to the end of each fiscal year, the comptrollrr shall provide the facilities maintenance officer with a listing of all specific job orders not closed. The facilities maintenance officer shall annotate the list to show those jobs which will be completed after the fiscal year end, and these will be carried over to the new year. All standing job orders will be closed at year end, and new jobs with updated estimates will be processed for the new year.

# CHAPTER 4

# JOB PROCESSING AND CONTROL SYSTEMS

## SECTION 4: JOB DATA CODES

### 4400. WORK GENERATOR (LABOR CLASS) CODES

1. Purpose. Work generator codes are numerical codes used to identify the various categories of overhead and productive labor to permit mechanical collection of data for developing work programs and determining staffing requirements.

2. Application. Work generator codes shall be recorded on each job order authorizing tasks assigned to maintenance and repair division personnel. These codes do not apply to contract work. The codes are:

a. Codes for Productive Work

(1) Code 01--Emergency Work. Work which satisfies the definition. (See appendix A1.)

(2) Code 02--Service Work. Work which satisfies the definition. (See appendix A1.) The 2-man days and cost criteria are established Marine Corps wide and shall not be adjusted to meet individual activity requirements, unless specifically authorized by the CMC (LFF). Code 02 shall not be used in conjunction with or in support of specific job orders.

(3) Code 03--Standing Job Orders--Not Estimated. This code will be used under very unusual circumstances, primarily for recurring work which cannot be estimated directly and where the issuance of emergency/service tickets would result in an unacceptable volume of tickets. The standing job order document should record the justification for use of Code 03.

(4) Code 04--Standing Job Order--Estimated. Recurring tasks which have an identifiable pattern of scope and frequency; e.g., preventive maintenance inspection, custodial work, grounds care, and refuse collection.

(5) Code 05--Specific Job Orders. Work which is authorized by a specific job order. (See paragraph 4303, preceding.)

b. Codes for Overhead

(1) Code 10--Shop Supervision. Hours expended by civilian and equivalent military personnel within the various work centers of the maintenance and repair division. This includes shops officer, superintendents, and foremen. No shop of less than four personnel should have a supervisor. The maintenance organization should have a minimum ratio of four personnel to each first line supervisor.

(2) Code 11--Administrative and Clerical. Hours expended by civilian and equivalent--military personnel assigned to management, administrative, and clerical duties.

(3) Code 12--Indirect Support. Hours of civilian and military personnel assigned to tasks, such as scheduling, shop planning, toolroom attendance, and shop cleanup. Shop and job site cleanup directly related to an individual job order may be charged to that job order as productive work.

(4) Code 13--Leave. Hours expended for approved absences, such as annual, sick, and administrative leave; holidays; and jury duty.

(5) Code 14--Allowed Time. Nonproductive hours expended for delay (awaiting material, transportation, and assignment), approved tardiness, participation in charity campaigns, blood donations, etc. Excludes military duties and absences which shall not be designated by a work generator code.

(6) Code 15--Rework. Nonproductive hours expended for rework.

4401. WORK CENTERS CODES. (See paragraph 2203, preceding.)

# CHAPTER 4

# JOB PROCESSING AND CONTROL SYSTEMS

## SECTION 5: MASTER JOB SCHEDULING

### 4500. GENERAL INFORMATION

1. Purpose and Application. Job scheduling is a system to compile and allocate jobs in balanced hour distributions to effectively engage work center staffs during all workdays. It applies to the tasks performed by the production controller who develops master schedules from the quarterly work programs described in paragraph 3207.1b preceding.

2. Format

a. Master schedules showing weekly hour assignments to work centers shall be prepared in accordance with the suggested format and instructions provided in appendix B9.

b. Sheet number one and one or more continuation sheets shall be prepared for each week covered in the oncoming quarterly work program. The looseleaf binder can cover weekly schedules for 1 fiscal year.

3. Location. Depending on local preference and convenience, the scheduling unit may be a responsibility of the operations or maintenance and repair division.

### 4501. SCHEDULING PROCESS

1. Completion of Hour Data on Job Order Continuation Sheet. The production controller tentatively shall distribute the total estimated hours recorded by the planner/estimator to the weeks indicated in block 7 of the job order continuation sheet. (See appendix B7.) The tentative dates should reflect time allowances for receiving material and completion dates designated by the facilities maintenance officer. Tentative schedules noted on the job order continuation sheets may be adjusted to accommodate new job priorities, material delays, or other conditions. When the schedule is firm, the heading "Final" shall be checked; and the estimated hours shall be incorporated in the master schedule.

2. Preparation of the Master Schedule

a. Scheduled Specific Job Orders. The production controller shall complete the data as prescribed in parts A througb C of appendix B9. For each scheduled job order, the production controller shall indicate a beginning and completion date.

b. Standing Job Orders. Following the list of scheduled specific job order, the production controller shall lift all the nonscheduled specific job orders applicable to the week covered.

c. Signature. The production controller shall sign the last continuation sheet of the schedule.

3. Forwarding Copies of the Master Schedule. Completed schedule sheets shall be reproduced and copies forwarded, together with copies of the job order, to the work centers concerned.

4502. SCHEDULING COORDINATION

1. Coordination of the Operations and the Maintenance and Repair Divisions. Close liaison between the operations and the maintenance and repair divisions will facilitate realistic scheduling and improved work allocations, thereby lessening monitoring and supervisory efforts in managing work centers.

2. Weekly Schedule Meetings. Conferences attended by operations division representatives, production controller, material handlers, and shop supervisors should be held weekly to discuss the weekly master schedule, identify carry-over work, and coordinate work allocations.

# CHAPTER 4

# JOB PROCESSING AND CONTROL SYSTEMS

## SECTION 6: JOB ACCOMPLISHMENT

### 4600. WORK CENTER MANAGEMENT

1. Work Center Staffs. The trade or work centers of the maintenance and repair division shall accomplish scheduled and unscheduled jobs. To the extent practicable, work center staffs should be freed of inspecting, planning/estimating, and master-scheduling, to facilitate the timely and orderly accomplishment of jobs.

a. Supervisors. Work center supervisors should be selected for mechanical skills as well as the ability to manage personnel. Efforts should be devoted primarily to job site supervision, allowing a minimum amount of time for report preparation, master-scheduling, and other adininistrative tasks.

b. Productive Staffs. Journeymen (skilled mechanics) , multi-trade workers, helpers, laborers, and trainees constitute the productive forces. When authorizations, operations, or technological changes occur, the number of journeymen in each craft should be reviewed to equalize the available personnel with the revised work load.

2. Work Center Tools and Equipment

a. Work center personnel should keep abreast of improved materials and labor-saving tools and devices for better operations and economy. Acceptable and required tools should be procured and training provided for their proper use.

b. A list of common handtools should be developed for each trade. If allowed by the current activity labor agreements and it is more cost-effective, these tools should be provided by the individual mechanics.

c. Shop tools and equipment should be arranged to provide an easy workflow. Requisitions for special tools and equipment should be carefully screened for a continuing in-house requirement or possible cost savings by purchasing the service or renting the equipment from commercial or other Government sources.

d. A system for shop tool and equipment issue and control should be instituted which promotes timely acquisition and

replenishment cycles and prevents excessive stocking and loss. Elements of an adequate system include:

(1) Toolroom Operation. Supports shop tool needs while protecting investments through security and retrieval measures.

(2) Purification of Stock. Verifies stock levels on an ongoing basis.

(3) Tool and Equipment Disposal. Provides internal shop control over the disposition of tools and equipment.

(4) Tool Sets/Chests/Kits. Special tools are signed out for temporary issues to shop forces, and inventoried at least annually.

>3. Supplies and Materials. Due to the commercial nature of facilities maintenance (FM), supply and material support procedures will be established as specified in chapter 7 at all Marine Corps activities with FM organizations. These procedures are necessary to permit FM operations to function in the most efficient and cost-effective manner, with material support being an integral element of total work accomplishment along with labor, equipment, and contract effort. It should be noted that nothing in this Manual is intended to usurp the provisions of Federal Acquisition Regulation (FAR), DoD FAR Supplement, and Navy Acquisition Regulations.

4601. HOUR ALLOCATIONS. The work center supervisors shall complete part C of the work center master/day schedules in accordance with the instructions provided in appendix B9 and as follows:

1. Job Completion. All scheduled jobs shall be accomplished in accordance with the beginning and completion dates indicated by the master scheduler. The work center supervisor shall ensure that nonscheduled jobs are completed within 30 days.

2. Time Deviations

a. The reasons for time overruns or shortfalls shall be noted on the reverse side of the schedule sheet by the shop supervisor.

b. Additional hours required, beyond the week indicated for completion, shall be included in the schedule for the subsequent week, only after the requirement has been justified orally at the next weekly scheduling meeting. (See paragraph 4502.2, preceding.)

c. Minimum emergency/service management data should include the average hours per service ticket, the percent of service ticket

completed within 14 calendar days, the percent of emergency tickets completed within 2 calendar days, and the percentage of emergency tickets to total tickets.

>3. Completed Schedules Sheets. Shop supervisors shall return the schedule sheets for the week ending to the production controller on the Monday following.

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# CHAPTER 5

# RECORDS, RFPORTS, AND SURVEYS


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# CHAPTER 5

# RECORDS, REPORTS, AND SURVEYS

## SECTION 1: DAY RECORDS AND FILES

5100. DAY-TO-DAY LEDGERS. To the maximum extent warranted, records required by the facilities maintenance organization shall be accumulated by mechanized procedures. Desktop ledgers shall be limited to day-to-day information only. Such ledgers may be maintained for:

1. Material Fund Availability. The administrative officer of the facilities maintenance organization may maintain a ledger of funds by fiscal years, earmarked for material under FCC's and customer fund sources. A weekly target for ordering material to accomplish scheduled jobs under FCC's should be determined at the beginning of each fiscal year. The weekly target is determined by deducting the material fund requirements based on historical data for non-scheduled work from the annual available FCC designated funds and dividing the remainder by 52.

2. Material Expense. A ledger may be maintained to accumulate anticipated material requirements. Estimates for material may be recorded by job order serial number to provide a cumulative balance of anticipated expense. Material fund requirements shall not be considered obligations. The actual expense is incurred at the time the material is issued. The ledger should be reconciled with actual expense records provided by the activity's comptroller.

5101. FACILITY HISTORY AND CUSTOMER FILES

1. Facility History Files. To the maximum extent warranted, records required for the facilities history files shall use mechanized procedures. A file shall be established for each facility listed on the LRMP so that a history of work performed or to be performed on a facility is available. Documents filed shall include:

a. Cover Sheet. A chronological listing of specific work and new construction done to the facility.

b. Inventory Card. A copy of the real property inventory record card prescribed by the current edition of NAVFAC P-78 (Real Property Inventory Instructions for Preparation and Distribution

of Property Records Cards). Detailed information (e.g., number of roof squares, number and sizes of windows, etc.) of the physical components not provided in the basic card may be added on the reverse side of the card.

c. Job Orders and Service Contracts. A copy of microfiche or computer data bank record of each job order or contract for construction, repair, or maintenance of the facility. These records shall be replaced with subsequent authorizations for similar work.

d. Inspector's Reports. Reports completed for maintenance and repair revealed during the most recent control inspection.

e. Emergency/Service Tickets. A separate history file for each facility shall be maintained to compile emergency and service tickets. A periodic review of these files should be conducted to determine the frequency of similar jobs for possible major deficiencies or causes of abnormally high costs. The files may be cleared of emergency/service tickets annually.

2. Customer Files. A separate file should be established for each customer. The contents shall comprise work requests and job orders to provide historical data for estimating resources required to provide facilities maintenance organization services.

5200. BMAR REPORT AND PROJECTS PLAN. (See appendixes AS and A6.)

1. BMAR Report. The BMAR Report is the end of fiscal year measurement of maintenance and repair work which remained as a firm requirement of the shore activity's work plan but which lack of resources prohibited accomplishment during that fiscal year.

a. BMAR Codes. BMAR items shall be identified by deficiency codes and reported in accordance with the information provided below. The report(s) shall contain items of maintenance, repair, and demolition (excludes minor construction as defined in appendix A1 and detailed in MCO P11000.5) which were part of the annual plan in the fiscal year but which were not accomplished during the year because of lack of resources. Deficiency coding criteria are as follows:

(1) Code 1, Maintenance and Minor Repair Work (Subfunctional Code M-1). Consists of all maintenance and repair items whose estimated cost is within the local commander's approval authority described in the current edition of MCO P11000.5. These are facilities deficiencies which should have been corrected during the fiscal year with locally budgeted funds but were not because of lack of resources. When a facility required construction work as well as maintenance and repair, only the maintenance and repair portion will be reported. Please submit only a summary of your current and prior M-1 BMAR as follows:

(a) Year ID

(b) Category Code (Mandatory)

(c) Current Working Estimate (CWE) (sum of all CWE's for one fiscal year.

Submission of this report on the form shown in appendix Cl is not required, but should be the basis of the M-1 summary report, and should be retained locally.

(2) Code 2, Maior Repair Work (Subfunctional Code M-2). Consists of all repair items whose estimated cost is above the local commander's approval authority described in the current edition of MCO P11000.5. After Headquarters Marine Corps validation, all BMAR Code 2 items will be considered for inclusion in a current or future year Headquarters Marine Corps facilities

projects program. When a facility required construction work as well as major repair work, only the major repair portion will be reported. This report is to be submitted on the form shown in appendix C1.

(3) Code 3, Demolition. Consists of those items of demolition of excess facilities (class 2 real property), regardless of cost. The estimated cost of a demolition item should include the cost of work to restore the site to a condition equivalent to the surroundings. This category applies only to excess facilities, but does not apply to demolition required because of construction or repair. Demolition shall be accomplished as prescribed in MCO P11000.12. Updates to the Demolition Plan will be submitted as a part of the BMAR Report. The following information will be provided:

(a) Facility Number (Fac No).

(b) Current Plant Value (CPV).

(c) Estimated Cost to Demo (CWE).

(d) Category Code (Cat Code).

(e) Planned FY for Demo (FY Plan).

b. Fund Sources. Separate forms shall be prepared for each fund source (see paragraph 1301.1) except that family housing BMAR will be reported as detailed in MCO P11000.22.

2. Prolects Plans. To develop the major repair projects program for a budget year, the CMC must take into account three things:

a. Past year project size requirements which are shown as Code 2 and Code 3 items on the BMAR report.

b. Current year project size requirements.

c. Budget year, budget year +1, budget year +2 project size requirements. Information on the project size requirements for the current year and the budget year through budget year +2 shall be submitted as project plans for each year. These plans must reflect the unconstrained requirements as shown in the shore activity's LRMP. The form and codes used for the BMAR report will also be used for the projects plan.

3. Report Submission. Commanders of Marine Corps shore activities and directors of Marine Corps districts holding class 2 property shall submit the BMAR report and projects plan in accordance with the instructions provided above and in appendix Cl. BMAR

reports shall be submitted annually to CMC (LFF-2) not later than 10 October each year. Project plans for the current and budget years shall be submitted on the same date (BMAR reports for FY94 shall be submitted on 10 October 1994 along with the project plans for FY95, FY96, FY97, and FY98). Code 2 and Code 3 items will be validated and rated within 60 days of the submission date (see paragraph 5401). Code l items will be validated during annual maintenance management surveys (see paragraph 5400).

## 5201. ITEM-OF-INTEREST REPORT

1. Purpose. Information of a significant program or noteworthy benefit experienced at one activity may help other activities in avoiding or resolving similar pitfalls or profit by improvements. Unforeseen maintenance problems may arise from deficient design, faulty construction, or improper uses of material or equipment. Conversely, time-saving new equipment, more durable materials, or advanced operating procedures may reduce maintenance costs or improve working conditions. The CMC (LFF) will transmit data of general interest so that other activities having similar situations may profit from the experiences.

2. Report Preparation. The item of interest report shall be prepared as a brief narrative in correspondence format, containing the following suggested information for each item of general Marine Corps interest:

a. Description of the problem or benefit.

b. Causes and effects or advantages and disadvantages.

c. Corrective action taken or recommendations.

3. Report Submission. An original and one copy of the item of interest report shall be submitted to the CMC (LFF) whenever sufficient factual data have been gathered to substantiate the problem or benefit described in paragraph 5201.1, preceding.

# CHAPTER 5

# RECORDS, REPORTS, AND SURVEYS

## SECTION 3: INTERNAL REPORTS

### 5300. MAINTENANCE MANAGEMENT REPORTS

1. General Information. Facilities maintenance management reports (FMMR) are designed to provide data to analyze and improve facilities maintenance organization operations by pinpointing problem areas and weaknesses in the operation and maintenance and repair divisions at major Marine Corps activities. The reports shall be retained locally but shall be made available to representatives of the CMC for review.

2. Mechanized Reports

a. Report Descriptions. Formats of the machine printouts and description of column headings of the maintenance management reports are provided in appendix C:

| Report No. and Title | Appendix |
|---|---|
| 1--Estimate and performance Analysis | C2 |
| 2--Labor Analysis | C3 |
| 3--Complete Specific Job Orders | C4 |
| 4-- Standing Job Order Status | C5 |

b. ADP Responsibility. Labor distribution, material transaction, and equipment rental data will be inserted into the facilities maintenance management file daily. Report No. 3 will be provided to the facilities maintenance officer within 5 days of receipt of notification of the completion of one or more specific job orders. Report Nos. 1, 2, and 4 will be provided to the facilities maintenance officer monthly, within 5 days after the end of the month. Since timely and accurate feedback of actual charges is essential to analysis of variances and preparation of summary reports, these reports will not be delayed pending correction of errors in the shore activity's financial accounting or cost accounting inputs or reports.

c. Variances on Report No. 3. Variance reports shall be prepared when any of the following conditions occur on Report No. 3:

(1) The ratio of estimated material cost (as defined in appendix A1)/actual material cost for any work center is greater than 109 percent or less than 91 percent and the total material cost is in excess of $2,000.

(2) The ratio of estimated to actual hours for any work enter is greater than 109 percent or less than 91 percent. The reasons for the variances shall be determined by the operations officer and the director of the maintenance and repair division, and the report shall become a permanent attachment to the completed job order. The facilities maintenance officer or assistant facilities maintenance officer, operations officer, maintenance and repair director, and the management analyst shall meet when appropriate to review variance reports, analyze trends, and initiate corrective actions.

3. Manually Prepared Reports. The following maintenance management report shall be prepared manually in accordance with the format and instructions contained in appendix C:

| Report No. and Title | Appendix |
|---|---|
| 5--Work Status | C6 |

# CHAPTER 5

# RECORDS, REPORTS, AND SURVEYS

## SECTION 4: SURVEYS AND VALIDATIONS

### 5400. MAINTENANCE MANAGEMENT SURVEYS

1. Objectives. Onsite surveys will be conducted by staff representatives of the CMC to appraise the effectiveness of the RPMA's program performance at each shore activity.

2. Survey Procedures

a. Reviews. The surveys shall encompass a comprehensive review of all matters covered by this Manual. In addition, other RPMA areas, such as facilities. engineering, may be covered. Specific areas which will be reviewed include but are not limited to the following:

(1) Maintenance management reports.

(2) Activity inspection plans.

(3) Long-range and annual plans, and annual and quarterly work programs budget estimates.

(4) BMAR report and projects plan.

(5) Maintenance emergency/service tickets, work requests, and job order in relationship to EPS utilization and accounting accuracy.

(6) Work flow and staffing patterns.

(7) Shop control and shop layout.

(8) General evaluation of the physical condition of activity facilities and their use.

b. Findings. All of the findings resulting from the survey will be brought to the attention of the command at an exit briefing. Findings and recommendations may be covered by a formal report from Headquarters Marine Corps to the command.

## 5401. VALIDATION OF THE BMAR REPORT AND PROJECTS PLAN

1. Relationship to the Headquarters Marine Corps Facilities Projects Program (Also see pages B-3 and B-4 of Appendix B)

a. As stated in MCO P11000.5, major repair for which a facilities repair project is submitted must have been included as an unfunded deficiency item in the current submission of the BMAR report and projects plan and must have been validated.

b. The validation and rating procedures provide a uniform system to determine the best solutions and the relative priority of projects essential to the mission of the activity in selecting projects to be included in the annual Headquarters Marine Corps facilities projects program.

2. Validation Procedures

a. Validation will be by onsite surveys conducted by a team comprised of at least one representative of the CMC and one or more representatives from the activity. Representation from intermediate commands is encouraged but not mandatory. Surveys will be scheduled within 60 days of submission of the BMAR report and projects plan.

b. The representative of the CMC will review all Code 2 and Code 3 items included in the current submission of the BMAR report and projects plans. Only those items considered appropriate for the submission of a project request will be marked valid.

c. Deficiencies identified as Code 1 will be spot-checked but will not be numerically rated.

d. If an onsite survey of unfunded deficiencies at an activity is not feasible, a repair project request submitted under the Real Property Facilities Projects Program will be assigned a rating by the CMC (LFF), based on the justification data provided with the submission. Validation criteria will be supplied by 10 August of each year.

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# CHAPTER 6

# DEMOLITION


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# CHAPTER 6

# DEMOLITION

## 6000. GENERAL INFORMATION

1. The removal of unusable, unsightly, and excess facilities from activity real property inventories is essential to the effective and efficient management and operation of facilities maintenance. Retention of these facilities places an unwarranted burden on available maintenance resources and runs counter to proper facilities planning and installation beautification and improvement efforts.

2. Demolition work can essentially be classified as two types.

a. Major Construction Related. The requirement for demolition which is caused by a major construction undertaking is to be considered a part of the construction project. Although funding available through the operation and maintenance (O&M) appropriatioins may be used to support demolition work, construction projects fundable through the military construction (MILCON) appropriations must also cover related demolition work.

b. Unrelated to Construction. The removal of facilities that have no direct relation to a construction undertaking is properly funded through the O&M appropriations as repair demolition.

3. A continuing problem experienced by activity facilities maintenance managers is that unprogrammed, and at times invalid, operational requirements serve to interfere with an effective demolition plan. This occurs when operational commanders, viewing unused facilities, generate interest in obtaining these facilities for questionable requirements. The resolution of this problem requires support for the demolition plan by the highest echelons of command.

## 6001. DEMOLITION PLANNING

1. The heart of an effective demolition plan lies in the Marine Corps Facilities Planning and Programming System (MCFPPS) which is covered by the current edition of MCO P11000.12. The key element of the MCFPPS is the Facility Planning Document (FPD). The FPD is an extract of assets data from the Navy Facility Assets Data Base (NFADB), basic facilities requirement (BFR) quantities, and

planning actions for each facility within a category code. Planning actions will reflect construction, alterations, additions, conversions, and demolitions. The ultimate objective is to provide planning actions that will result in a balance between the total proposed adequate assets and the BFR quantity for each facility category. The activity master demolition plan simply consists of the demolition actions contained in all the FPD's for the activity.

2. The activity must comply with the current edition of MCO P11000.14 and NAVFACINST P-73 requiring initiation C)f an excess/survey action once it has been determined the facility is to be demolished. The activity must decide the appropriate means of obtaining funding for the work when advised by the EFD that demotion may occur.

a. MILCON Projects. As indicated in paragraph 6000, demolition work caused by a major construction project is funded through the MILCON appropriation. This is true whether the demolition is required to provide a clear site for the new project or the new project replaces an inadequate facility.

b. Japanese Facilaties Improvement Program. (JFIP) Projects. For WestPac activities, the JFIP requires clear sites provided by other than JFIP funding. At those activities, funding can be provided through the O&MMC real property maintenance funding (either M-1 or M-2) or through the use of the Department of Defense Environrnertal Restoration Program (DoDERP-DEMO), discussed in paragraph 6002.2, following.

c. Nonappropriated Funds (NAF) Projects. In the case of demolition work stemiring from major construction using nonappropriated funding such as the Marine Corps exchange, special services, and the clubs system, the following rules apply:

(1) Site clearance work caused by the NAF project must be funded by the project.

(2) Vacant facility demolition originating from tenant relocation to a new facility built with NAF funds may be funded with either NAF, O&MMC or DoDERP-DEMO funding.

d. Unrelated to a Construction Project. This demolition work may be funded with eIther 0&MMC or DoDERP-DEMO resources.

3. Facilities intended for demolition, once vacated, should have their level of maintenance support reduced to a minimum consistent

with fire protection and life safety dictates. In most cases, utilities can be disconnected and the means of entry secured. Once approved for demolition, a good practice is to post the intended site with official notice that demolition is to occur and cautioning individuals to stay clear since the facility could be considered to be a hazardous site.

4. Once constructed, the master demolition plan should become an integral component of the activity LRMP discussed in paragraph 3205, preceding. The caster demolition plan should reflect the requirement to remove foundaticn slabs where buildings once stood.

5. Demolition work should be provided for restoration of the site to a condition compatible with the surrounding environs. This can include appropriate filling, grading, and seeding as well as limited landscaping. Installation of complex lawn irrigation systems, however, cannot be considered demolition work but must be funded with accompanying minor construction resources.

## 6002. DEMOLITION EXECUTION

1. Demolition work will normally be accomplished by available open-ended, indefinite quantity/delivery demolition contracts awardable through the local officer in charge of construction (OICC). Minor activities. Should seek access to such contracts administered by their supporting EFD.

2. DoDERP. The (DEDERP-DEMO) is a program administered by NAVFAC for naval installations. As specified in MCO P11000.12, headquarters Marine Corps will annually publish information on the method of nominating projects for DoDERP-DEMO funding. As a minimum, activities considering this source of fundiiig will have to submit DD Form 1391 and form NAVFAC 110l3/7 as well as photographs of the nominated facilities.

REAL PROPERTY FACILITIES MANUAL

# CHAPTER 7

# SUPPLY SUPPORT FOR FACILITIES MAINTENANCE


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# CHAPTER 7

# SUPPLY SUPPORT FOR FACILITIES MAINTENANCE

## 7000. GENERAL INFORMATION

1. Effective supply and material support are crucial to efficient in-house FM operations. To achieve this efficiency of operations, FM must function in an environment similar to the one in which the private business sector operates.

2. The supply provisions contained herein are specifically tailored for FM operations and shall be used for acquisition and management of FM material at Marine Corps installations. In all cases not covered in this chapter, appropriate regulations, supplements, and Marine Corps Orders shall apply.

3. Inventories maintained at FM are normally considered consumer-level inventories. As such, management of these inventories will be per MCO P4400.150 or as amended herein. Requested changes or waivers to this policy will be forwarded to the CMC (LPP-2) for action with copy to CMC (LFF-4).

7001. SUPPLY MANAGEMENT. FM material and supply support must have a management system that considers both the safeguarding of government property as well as availability of required items for responsive use in support of the FM mission. To accommodate this system, the following management responsibilities are prescribed:

1. The FMO is responsible for identifying what materials and supplies are needed to accomplish the mission. As such FM should use a management system to generate and update a computer listing of items required as follows:

a. To be maintained on-hand in support of recurring needs.

b. For specific job orders planned for accomplishment.

2. The FMO determines the priority of need, and in compliance with all applicable procurement regulations and procedures, the most efficient and effective means for obtaining required material and supply support. As such the FMO or his designated representative will:

a. Submit, as necessary, individual requisitions to the DSSC (or appropriate GSA center) for shop stores draws or IR's.

b. Place calls against appropriate indefinite delivery/ quantity type contract (ID/QTC) and blanket purchase agreement (BPA) for Productive Work, Codes 01 through 05 (if designated an ordering officer/buyer by the contracting officer).

c. Advise the DSSC of items desired for stockage in Shop Stores.

d. Ensure all usage data is passed to the supporting intermediate supply activity for use in the requirements determination process at that installation.

e. Conduct, as responsible officer for assigned government property, periodic and specified inventories ensuring the safe-guarding of assigned property. FM will also prepare excess property action for forwarding to DRMO via DSSC as set forth in appendix D.

f. Ensure that all facilities maintenance personnel engaged in the obligation of public funds receive appropriate training as per DoD and USMC civilian and military personnel regulations. Contracting officer's technical representatives (COTR) must also be formally trained prior to assumption of duties. Personnel engaged in procurement must also be familiar with the Federal Acquisition Regulations (FAR), the Defense Federal Acquisition Regulations Supplement (DFARS), the Navy Acquisition Procedures Supplement (NAPS), and appropriate statutes, regulations, Standards of Conduct and Government Ethics, and Procurement Integrity as they pertain to their billet or function.

3. DSSC Activities. In support of FM supplies and material needs, the DSSC will:

a. Process FM submitted requests.

b. Load into Shop Stores such items as the FMO may request for stockage.

c. Pass, when required, to the purchasing and contracting officer (PC&O) requests for FM supplies and materials that are unavailable through the supply system, are covered by an existing ID/QTC, or that exceed FM monetary threshold for BPA calls.

d. Provide FM with monthly copies of Shop Stores Catalog (or access to that information through automated means, if available) and the EOI File Inventory Control Data Listing.

e. Effect screening, drawing, and turn-in of excess property to the DRMO. This only applies to items stocked by the DSSC.

4. Purchasing and Contracting Officer (P&CO). The activity P&CO, the sole authority for obligating the government contractually, will support FM in obtaining open purchase of required material and supplies in accordance with applicable procurement regulations. The officer in charge of contracts (OICC) has no authority to obtain supplies listed in this chapter.

## 7002. SOURCES OF SUPPLY

1. Except where constrained by law or Federal regulation, installation commanders are free to purchase goods and services wherever they can get the combination of quality, responsiveness, and cost that best satisfies their requirements. In order to effectively and efficiently accomplish facilities maintenance, adequate material support is essential. MCO P4200.15 delineates acquisition policy for supplies, services and equipment from other military agencies, the General Services Administration (GSA) or commercial sources.

2. The facilities maintenance officer shall establish/determine his requirement, required delivery date, and if known, provide a recommended source of supply. The DSSC is the first source of supply for items required to accomplish facilities maintenance. For those requirements which cannot be satisfied through the USMC supply system due to unusual and compelling urgency, or when purchase is in the best interest of the Government in terms of the combination of quality, timeliness, and cost that best meets the requirement, as determined by the contracting officer based upon input from the FMO, the following sources of supply listed in descending order of priority shall be utilized. Procedures for use of these sources will be as specified by the activity purchasing and contracting officer (P&CO).

a. Agency Inventories.

b. Excess From Other Agencies.

c. Federal Prison Industries, Inc.

d. Procurement lists of supplies available from the Committee for Purchase from the Blind and Other Severely Handicapped.

e. Wholesale supply sources, such as stock programs of the GSA, the Defense Logistics Agency, the Department of Veterans Affairs, and military inventory control points.

f. Mandatory Federal Supply Schedules.

g. Optional use Federal Supply Schedules.

h. Commercial Sources. These open market purchases may use the following, or any other purchasing instruments available at the activity:

(1) Indefinite Delivery/Quantity Type Contracts (ID/QTC).

(2) Blanket Purchase Agreements (BPA).

(3) Imprest Fund.

(4) Bank Card.

(5) Purchase Order.

7003. FACILITIES MAINTENANCE MANAGED MATERIALS

1. The FMO is responsible for overall control and accountability of material assets managed by FM. As a general rule, FM activities should practice just-in-time inventory practices and stock only those supplies/materials that cannot be obtained readily from DSSC or through an open purchase instrument such as those listed in paragraph 7002.2h, above. At no time will there be dual stockage of an item at both the supporting DSSC activity and the FMA's operating stocks. Stocks maintained by FM are classified as either demand-based operating stocks, protected stocks (to include insurance items), pre-expended bin (PEB), or bills of materials (BOM).

2. The FMO shall be accountable for all materials and supplies acquired for execution of the FM mission. Local procedures shall be established so that an audit trail exists from acquisition to application where such would not create an unwarranted accounting burden. Consideration should be given to recording end use of more costly stocked items on appropriate execution documents (e.g., emergency/service tickets and standing job orders). Periodic checks of stock inventories are essential to protect government property.

3. In determining the appropriate method and quantities for stocking materials attention must be extended to encompass the nature, item cost, and the overhead costs accrued from stocking and safeguarding those items. Usually FM managed materials fall into the following categories:

a. Demand-Based Operating Stocks. Those quantities of expendables and nonexpendables which are not allowance items but are authorized to support mission requirements based on usage or authorized protected levels. For FM, an item may be maintained in operating stock if there are at least six requisitions for that item within 6 consecutive months. The requisitioning objective (RO) for FM is the largest quantity of an item authorized to be on-hand or on requisition to sustain current operations. The RO for FM is the sum of stock represented by the OL and the OST level. Once an item is eligible, stockage levels will consist of the following:

(1) Order and Shipping Time (OST). The 0ST will be the actual time elapsing between the initiation of stock replenishment action and receipt of the material, as experienced by FM for an individual item.

(2) Operating Level (OL). The OL is equal to a 30-day usage requirement for each item.

(3) Safety Level (SL). The FM supply account is not authorized a safety level.

b. Protected Stocks. For FM supply operations, protected stocks consist of insurance items and other protected stocks.

(1) Insurance Items. Insurance items are protected stocks not meeting prescribed stockage criteria. A small quantity is required to ensure mission accomplishment. Insurance items are mission essential, critical items characterized by low usage, long lead times, and are normally of a costly nature. In regard to insurance items,

(a) The FMO will approve the range and depth of assets that will be stocked as insurance items. Stockage level (i.e., RO) will be restricted to meet specific requirements on an item-by-item basis.

(b) The FMO will certify in writing a list of items which will be stocked as insurance items with complete justification as to why the item is qualified for stockage (and the level of stockage specified).

(c) Annually the FMO will review each item managed as to current stockage and past year demands and conduct an inventory of items on-hand. Adjustments should be made in the inventory, as required by this analysis.

(d) Assets designated as insurance items will be funded by FM and may be placed under the control of either the FMO or the local DSSC. FM is responsible for initial acquisition and subsequent replenishment.

(e) The FMO will ensure security of insurance items under his control consistent with their value.

(2) Special Operating Stocks (SOS). This category of stockage accommodates those items of supply which do not qualify as PEB, 05, or insurance items, but which good business practice dictates should be evaluated prior to any disposal action. SOS items may be materials necessary for the support of a system or facility which have been discontinued by their manufacturer (and for which there are no substitutes) or which possess distinctive patterns or color characteristics which cannot be reproduced. FM may opt to retain SOS for future use on other jobs as long as appropriate property control measures are exercised. SOS is not to be used as a "catch-all" of items just to preclude disposal action. The following general guidance should be used in dealing with materials fitting into this category:

(a) Keep the number and quantity of items to a minimum level. Centralize management of the material where possible.

(b) Mechanize inventory and accounting for SOS material. As a minimum records will show:

1 Quantity authorized.

2 Quantity (and date) received.

3 Quantity (and date) issued.

4 Quantity on-hand.

(c) Unique material classified as SOS will be approved by the FMO. The FMO will validate and approve in writing a list of the range and depth of SOS items on an annual basis. At the end of one year, items which have not been used or cannot be incorporated into planned work on the next annual work plan will be considered excess and disposed of per paragraph 7003.5, below. Examples of repair parts identified in paragraph 7003.3b(2) which have been discontinued, and for which there is no replacement, should be transferred to insurance items and otherwise comply with the guidance established for that category of protected stock.

(d) Material fitting into the category of SOS could be items of material turned over to FM after the Government has accepted a major construction project (MCON, FHN&MC, or NAFI), supplies obtained from DRMO, material leftover from prior maintenance, repair, or construction jobs, and materials for new systems for which there is no usage data.

(e) As with all other materials, adequate security shall be provided.

c. Pre-expended Bin (PEB) items. The purpose of PEB items is to provide continuous availability of low-cost, fast-moving items for mechanics and technicians performing maintenance. PEB items are authorized only to specifically support the maintenance effort. PEB's will be accounted for either by using cards or a local automated method. An automated method is preferable.

(1) PEB Stockade Criteria

(a) For those items applied/consumed as a full unit of issue (U/I), the usage criteria is six hits in 6 months.

(b) For those items applied/consumed as less than a full U/I, the usage criteria is one hit in 6 months.

(c) The items approved for stockage as PEB items will not exceed 30 days of supply based on average demand over the previous 12 months.

(d) Those items applied in quantities less than a full U/I (i.e., box, hundred, mix, etc.) are authorized to be stocked in quantities not to exceed two full U/I's or 30 days of supply based on recorded usage, whichever is greater.

(e) To accommodate peak demand periods the highest 2 months' usage of the previous 12 months' history may be averaged to establish 30 days of supply. Exceptions are authorized for these same units that identify specific, peculiar usage patterns for any U/I other than each or pair. These exceptions must be justified in writing during a, scheduled annual review and will not exceed the unit price criterion.

(f) Broken U/I's (i.e., 98 washers left over from a U/I of 100) which are ordered for corrective maintenance that do not meet PEB criteria are authorized to be retained as a PEB item until exhausted or for a period not to exceed 1 year. These items will be added to the authorized PEB listing reflecting the date they were added, and identified as broken U/I's.

(g) The maximum unit price for items with a U/I of pair and each is $75.

(h) The maximum unit price for items with a U/I of other than pair and each is $100.

(2) PEB Management

(a) Although items included in PEB's require no detailed accountability as to final disposition, a random audit of

PEB items against an end use job order number (JON) or other means of checking should be established unless to do so would cause an unrealistic and expensive accounting burden. Prudent management, however, dictates that controls be established to protect government property. To do so, FMO's shall conduct a PEB inventory annually. Next, FMO's will ensure that semiannually, a review of PEB usage and stockage levels is done to ensure that the PEB criteria is met. The FMO will then approve, in writing, the items which are to be contained in the PEB. Items no longer meeting PEB criteria will be removed from PEB and placed in protected stock (PS) until disposition is made under the guidance established for excess property.

(b) As a general rule, PEB's should be centrally managed. However, separation into specific shop areas is authorized where improved work force productivity results (e.g., loading of PEB's in support of cyclic maintenance or other recurring maintenance programs).

(c) For those FM organizations utilizing service trucks, PEB items from centrally managed sources will be tracked to the specific vehicle. At minimum, an annual inventory (which may be conducted on a cyclical basis) will be conducted on that vehicle, compared against supply issues, and the subsequent results analyzed to determine if there is material on board which is not required due to lack of usage. The FMO will then approve, in writing, all items which are to be contained on an individual truck, to include both PEB items and other expended items (e.g., rolls of electrical wire) necessary to perform repairs associated with the vehicle. Those items which do not have appropriate usage will be returned to the centrally managed PEB.

(d) To protect government property, the FMO, deputy FMO, and shop foreman will periodically inspect PEB small item stocks and orders for PEB replenishment to ensure suitability and appropriateness.

(e) Shop foremen will identify the items they desire to carry as PEB along with the initial allowance quantity as justification to the FMO. The FMO, or his supply supervisor, will ensure that the items meet the criteria for PEB and will consolidate the PEB stockage request into FM's PEB allowance list. Shops will then establish an audit trail of PEB material under their cognizance.

(3) Waivers. Base and Station Commanders may grant selective waivers to the unit price criteria for FM. This waiver will only apply to specific maintenance functions. The waiver will be granted in writing and will be reviewed annually. The upper limit on this waiver will not exceed $100 for U/I's pair and each, and $200 for U/I of other than pair and each.

e. Bills of Material (BOM). BOM's ordered for specific jobs as addressed elsewhere will be requisitioned by the FMO either from the DSSC or constructed from orders/calls placed against appropriate ID/QTC, BPA, or GSA contracts. The following guidance applies:

(1) BOM requisitioning should be commenced with sufficient lead time to permit complete accumulation of required materials and to permit the associated programmed work to be performed in a scheduled manner. Every effort must be made to ensure that appropriate lead times are established for material requisitions to enable the supply organizations affected ample time to properly acquire materials for work accomplishment. Short lead times or walk through requisitions should only be attempted when work to be conducted is due to unforeseen or emergency conditions.

(2) Fully assembled BOM's for which labor for some reason is not available may be held by the FM for up to l year. During that time, if in-house labor cannot be assured, the FMO should consider accomplishing the work by contract using the completed BOM as government furnished material.

(3) In the construction of a BOM, items carried in protected stocks should be reviewed so as to permit periodic rotation of those stocks, if appropriate.

(4) The FM supply organization will furnish the FMO with a BOM status (at minimum JON number and completion date and the number of BOM's pending materials) on a monthly basis.

4. Shop Stores/Servmart/Self Service. Items carried in Servmart, Shop Stores, or Self Service are procured using Navy or Marine Corps Stock Fund assets. The FMO may consider Shop Stores/ servmart/Self Service as a source for required materials where such items are common to the Fleet Marine Force or Navy Supply System and time for receipt of materials is not of concern. If the FMO decides to use Shop Stores/Servmart/Shop Stores, FM will be required to reimburse the appropriate stock fund with Operations and Maintenance Marine Corps funds as items are drawn.

5. Excess Materials

a. Materials left over from completed or canceled work may either be transferred to PEB 05, or PS; used in the construction of new BOM; or transferred to DRMO. Authorized stockage levels are to be maintained.

b. Shop Action. Materials excess to jobs will be returned by the shops to the supply section as they become excess. Shops will provide as much identifying data concerning the excess material as is possible.

c. Supply Action. The supply section will receive excess materials from the shops when jobs are canceled or completed and excess materials remain. Upon receipt of excess materials from the shops, the supply section will:

(1) When excess materials can be identified as required for a future planned requirement such as a specific job, will issue the materials to a new BOM number and forward it to the appropriate staging area where it will be held until the job is scheduled to begin.

(2) When carried as a stocked item, return the excess material to stock. Excess materials returned to stock are identified as "returns" or "receipt not from due". "Returns" will allow full credit for the return of material against a certain job; "Receipt not from due" is used when the shop cannot identify from which job the excess occurred.

(3) Rollback. Material which is identified as excess and cannot be reassigned or returned to stock will be disposed of in the following manner:

(a) Civilian Vendor. If procured from a civilian vendor through a BPA or a ID/QTC, contact is made with the vendor and return of the material is negotiated by an appointed contracting officer or his designated representative with that vendor based on a restocking fee. The material is then returned to the vendor for a cash credit to the Treasury of the United States or a credit memorandum to the government used against future purchases.

(b) Shop Stores. Items stocked by Shop Stores will be rolled back to Shop Stores for credit, as designated by DSSC regulations.

(c) Material Returns Procrram (MRP). When items stocked by the Federal Supply System become excess, they will be reported through the MRP in accordance with UM 4400-15, paragraph 03014.

(d) If the excess material cannot be returned to the original source of supply for credit, the FMO can offer the excess material to other units aboard the activity as well as other Marine Corps activities' facilities organizations willing either to pick up the material or pay for its shipment.

(e) If the excess material cannot be returned to the source of supply for credit, or transferred to another unit, the excess material will be sent to the nearest Defense Reutilization and Marketing Office (DRMO). The procedures specified in appendix D apply.

7004. TOOL AND PROPERTY CONTROL. The FMO is accountable for all tools and property procured with FM funds and will therefore initiate local controls to ensure the safeguarding of those property and tools. The following guidance is provided.

1. A unit property officer will be assigned in writing, as the responsible officer (RO), to manage all FM owned tools and property, and property on loan from other organizations in support of FM.

2. Responsible individuals (RI) will be assigned as required to account for all tools and property under their cognizance. The RI can be shop foremen or branch heads within FM. In all cases, assignments will be made in writing and local procedures established to provide guidance to the RI in the performance of his duties.

3. An Authorized Tool and Property Allowance List will be generated for all nonexpendable tools and property assigned to FM.

4. The FMO will approve all additions or deletions of allowances pertaining to the aforementioned allowance lists.

5. Missing tools and property will be dealt with in accordance with MCO P4400.150 and local directives. The FMO is the sole authority in all matters concerning loss of FM owned tools and property.

6. Replacing missing tools or property is not authorized until the loss of that item is resolved.

7. An audit trail will be established and maintained for all tools and property assigned to FM.

8. At a minimum, an annual inventory will be conducted by the RI's for all nonexpendable tools and property under their cognizance and the property records adjusted as required.

9. The FMO will provide local written procedures to RI's in the proper management of FM owned tools and property.

10. Individual tools, or locally assembled sets, kits or chests should be kept to a minimum as per paragraph 4200.2 of this Manual. Any discrepancies should be resolved as listed in the above paragraphs.

7005. VOUCHERING GAIN AND LOSS TRANSACTIONS. The FMO, or the designated representative, will ensure that gain and loss transactions for Marine Corps Property and Supply

Stock will be conducted in accordance with paragraphs 5004.7 and 5004.8 of MCO P4400.150

7006. RELIEF OF RESPONSIBLE OFFICERS (RO). Relief of the FMO and subordinate RO's and RI's will be conducted in accordance with chapter 5005 of MCO P4400.150.

# APPENDIX A

## GENERAL INFORMATION


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## APPENDIX A1

## DEFINITIONS AND ABBREVIATIONS

**ACTUAL MATERIAL COST.** The cost of the material used in completing a specific job order with full credit being taken for material which are disposed of as excess to the needs of the specific job order regardlcss of the method of disposal.

**BACKLOG OF MAINTENANCE AND REPAIR (BMAR).** End of fiscal year measurement of maintenance and repair work remaining as a firm requirement of the annual plan but which lack of resources prohibit accomplishmenUin that fiscal year.

**BALANCED WORK FORCE.** Optimum staffing to provide work centers with skilled personnel in each craft group which can be productively occupied simultaneously.

**CONSTRUCTION.** The erection, installation, or assembly of a new facility; the addition, improvement, alteration, expansion, or extension of an existing facility; the conversion or replaccmert of an existing facility; the relocation of a facility from one location to another, including equipment installed in and made a part thereof; and related site preparation, excavation, filling and landscaping, or other land improvements.

**CONTROL INSPECTION.** Continuous inspection involving the periodic scheduled examination or test to determine the physical condition with respect to the maintenance standard of facilities, including utilities systems and installed equipment (class 2 real property), for the purpose of identifying deficiencies in the early stages of development. The inspections generally pertain to electrical, mechanical, and structural features.

**COST CENTER.** An activity's organizational unit for which cost identification and cost control are required and feasible through one responsible supervisor.

**CUSTOMER.** An activity, component of an activity, unit, organization, or tenant which is authorized by an activity commander to request any type of facilities support.

**CYCLIC MAINTENANCE.** A recurring minor structural, electrical, or mechanical repair to high-use structures; e.g., barracks, administrative, dining facility, etc. The work is authorized by a standing job order which specifies work center tasks by type of facility and optimum time variables within a 30-minute per task maximum range. The work scope is limited to that which can be accomplished with simple handtools. Examples are tightening hinges, replacing faucet washers and shower heads, and repairing electrical switches.

**DELAY TIME.** Hours of productive effort lost because of unanticipated delays in starting work or during the progress of work, such as time lost awaiting transportation or procurement of material.

**DoD.** Department of Defense.

**EFD.** An engineering field division of the Naval Facilities Engineering Command.

**EMERGENCY WORK.** Work requiring immediate action to correct or prevent loss or damage to Government property, restore disrupted essential services, or eliminate hazards to personnel or property. The work is authorized by a locally prescribed form. When emergency work is not completed within the maximum limit of 16 hours, the remainder of the work is authorized by a specific job order.

**ENGINEERED PERFORMANCE STANDARDS (EPS'S).** EPS's are times required for an average employee of average skill, using average effort, working under average conditions to perform specific tasks following prescribed methods. The standard times include authorized allowances for personal convenience, fatigue, and delays. Accepted measurement techniques are used to determine the engineered standard times, including time study, predetermined times, standard data, and pace-rated work sampling.

**ESTIMATE.** The informed analysis of all known and probable elements of a proposed job and the forecast of personnel, materials, and related items needed to perform the job.

**FACILITY.** A separate, individual building, structure, or other item of real property improvement which is subject to reporting under the DoD real property inventory.

**FUNCTIONAL CATEGORY CODE.** An FCC is an alpha designation to collect appropriation and cost data and to fulfill management requirements for groups of similar or related tasks.

**JOB ORDER.** A document issued to authorize and specify work to be accomplished under coded numbering system to identify the various segments of an allotment or order and related accounting classifications in order to collect costs for the the work authorized. Job planning and estimating in the document should be detailed and complete.

**JOB ORDER AMENDMENT.** A modification of the technical provisions of a specific or standing job order to increase or decrease the scope or to correct the accounting classification or work. An amendment should be issued for any changes in the job scope.

**LEAD ACTIVITY.** An activity which provides maintenance-type services on a reimbursable basis to another activity within its proximity in accordance with the terms of an intraservice or interservice support agreement. A lead activity relationship is distinguished from a host-tenant relationship in that a lead activity does not provide facilities to the-activity it services.

**MAINTENANCE.** The recurrent day-to-day-, periodic, or scheduled work required to preserve or restore a facility to such condition that it may be effectively utilized for its designated purpose. Maintenance includes work undertaken to prevent damage to a facility which otherwise would be more costly to restore.

**MAINTENANCE FLOOR.** An annually allotted sum of money which must be spent as designed in the activity's operating budget for real property maintenance, repair, and construction. The allotted sum includes authorized amounts for facilities projects which exceed the activity commander's approval authority and is the minimum amount that can be spent for maintenance. Unobligated portions of the floor must be returned to Headquarters Marine Corps at the end of the fiscal year.

**MAINTENANCE STANDARDS.** The established level at which facilities and grounds are maintained to assure maximum overall economy and protection of the Government's investment. (See paragraph 3102, preceding.)

**MASTER SCHEDULE.** A plan projecting the commitment of personnel to accomplish authorized work over a specified period of time.

**MINOR CONSTRUCTION.** Work to erect, install, or acsemble a new facility or to expand, alter, or convert an existing facility to another use. Minor construction refers only to such work authorized to be accomplished with O&M funds.

**MINOR WORK.** Work which exceeds that authorized by an emergency or service work authorization (16 hours maximum) and less than that which should be scheduled. (See paragraph 4501.2, preceding, for the dividing line between minor work and that which should be scheduled.) Minor work is authorized and accounted for by a specific job order.

**NAF.** Nonappropriated funds.

**NAVFACENGCOM.** The Naval Facilities Engineering Command.

**OPERATING BUDGET.** The annual budget of an activity stated in terms of functional/subfunctional categories and cost accounts.

**OPERATOR INSPECTION.** This is routine examination, lubrication, and minor adjustments of equipment, including utility plants and systems, performed by personnel whose primary duty is to operate the equipment of facilities. Operator inspection is performed to the extent of authority assigned to the person operating the equipment.

**OTHER ENGINEERING SUPPORT.** Miscellaneous activity support functions applicable to RPMA, such as public works engineering and administration, custodial services, entomology services, refuse collection and disposal, and fire protection. This is called general engineering support by the NavCompt Manual, paragraph 024640.

**OVERHEAD.** Expenditures not directly chargeable to productive work in progress.

**PREVENTIVE MIAINTENANCE INSPECTION.** Continual inspection involving the systematic examination, lubrication, and adjustment of classes 2, 3, and 4 equipment to which an operator is not assigned or the inspection of which is beyond the operator's authority. The work is authorized by a standing j0b order which specifies work center tasks and time limitations. Preventive maintenance inspection on class 2 equipment shall be limited to 30 minutes per task and 20 minutes per task on classes 3 and 4 equipment. In addition, preventive maintenance inspection may include repair of equipment when the time to accomplish the work is less than 20 minutes on any item of equipment. The selection of classes 2, 3, and 4 equipment to be inspected and establishment of inspection frequencies shall be governed by considerations of economy.

**PRODUCTIVE TIME.** Hours expended by maintenance personnel in the direct or actual performance of authorized work.

**PUBLIC WORKS CENTER.** A Navy field activity commanded by the NAVFACENGCOM and normally operated under the Navy Industrial Fund (NIF). A public works center renders RPMA services similar to lead activities but is governed by NIF regulations. Reimbursement for services must include direct costs and overhead.

**REIMBURSABLE WORK.** Work authorized by a standing or specific job order, the cost of which is reimbursable in accordance with prescribed Marine Corps instructions, to the appropriation pperations and Maintenance, Marine Corps (O&MMC). The work may be performed for family housing; other military services, including Marine Corps activities not supported by the CMC; morale, welfare, and recreation activities; and private parties, including concessioners, contractors, and tenants of rental housing.

**REPAIR.** The restoration of a facility to such a condition that it may be effectively utilized for its designated purposes by overhaul, reprocessing, or replacement of constituent parts or materials which have deteriorated by action of the elements or usage, and which have not been corrected through maintenance.

**RESOURCES.** Military and civilian personnel, inaterial and equipment on hand, and money available performance work assigned to the facilities maintenance organization.

**REWORK.** Work which, in the judgment of the facilities maintenance officer, is necessary to correct faulty work.

**RPMA.** Real property maintenance activity. (See paragraph 3100.1, preceding.)

**SERVICE WORK.** Work which is relatively minor in scope, not emergency work by nature, normally estimated to require 16 hours or less to accomplish and involves a maximum of two work centers. Service work is authorized by an emergency or service work authorization or a locally prescribed form.

**SHOP DAYS.** A unit of measure used to express a shop workload in terms of days.

**SPECIFIC JOB ORDER.** A work authorization, which is planned and estimated in detail, issued for the accomplishment of a specific amount of work for which individual job costs are desired for financial and performance evaluation.

**STANDING JOB ORDER.** A work authorization issued to provide the performance of work of a highly repetitive nature and for which accumulated costs for a specified period, usually 1 fiscal year, are desired.

**UNFUNDED FACILITIES DEFICIENCIES.** Work required to meet maintenance standards which cannot be accomplished because of lack of resources; those items on the work plan which cannot be included in the work program.

**WORK CENTER.** A component of the facilities maintenance organization identified by trade or type of work performed.

**WORK CENTER SCHEDULE.** A daily plan for the commitment of personnel assigned to a work center.

**WORK GENERATOR CODE.** (Also termed "labor class code.") A numerical designation of the category of work on which personnel are used.

**WORK PLANS AND PROGRAMS**. Work plans include all work required to meet maintenance standards during a specific time period. Work plans are not constrained by availability of resources. Work programs are those portions of the work plans which can be accomplished within available resources.

**WORK REQUEST.** A form used to request the facilities maintenance organization to perform work or to prepare a cost estimate for specified work.

**APPENDIX A2: LIST OF MARINE CORPS SHORE ACTIVITIES**

| Activity Mission and Chain of Command | Category Major | Category Minor |
|---|---|---|
| Unit Training | | |
| Marine Corps Air Bases, Eastern Area | | |
| Marine Corps Air Station, Cherry Point, NC | X | |
| Marine Corps Air Station, Beaufort, SC | X | |
| Marine Corps Air Station, New River, NC I/ | X | |
| Marine Corps Air Bases, Western Area | | |
| Marine Corps Air Station, El Toro, CA | X | |
| Marine Corps Air Station, Yuma, AZ | X | |
| Marine Corps Air Station, Tustin, CA | X | |
| Marine Corps Bases | | |
| Marine Corps Base, Camp Lejeune, NC | X | |
| Marine Corps Base, Camp Pendleton, CA | X | |
| Marine Corps Air-Ground Combat Center, Twentynine Palms, CA | X | |
| Fleet Marine Force Atlantic, Command | | |
| Camp Elmore, Norfolk, VA | | X |
| Commander, Marine Corps Bases, Pacific | | |
| Marine Corps Air Station, Futenma, Okinawa 1/ | X | |
| Marine Corps Air Station, Kaneohe Bay, Oahu | X | |
| Marine Corps Air Station, Iwakuni, Japan | X | |
| Camp Smedley D. Butler, Okinawa (Includes Camp Fuji) | X | |
| Camp H. M. Smith 2/ | X | |

| | | |
|---|---|---|
| Recruit and Specialized Training | | |
| Marine Corps Development and Education Command, Quantico, VA | X | |
| Marine Corps Recruit Depot, Parris Island, SC | X | |
| Marine Corps Recruit Depot, San Diego, CA | X | |
| Central Supply and Maintenance | | |
| Marine Corps Logistics Base, Barstow, CA | X | |
| Marine Corps Logistics Base, Albany, GA | X | |
| Administration | | |
| Marine Barracks, 8th and I Streets, S.E., Washington, D.C. | | X |
| Headquarters Battalion, Headquarters Marine Corps, Henderson Hail, Arlington, VA | | X |
| Directors, Marine Corps Districts | | |
| 1st Marine Corps District, Garden City, Long Island, NY 3/ | | X |

1/ For this Manual, Marine Corps Air Station, New River, is considered part of Marine Corps Base, Camp Lejeune; and Marine Corps Air Station, Futenma, is considered part of Marine Corps Base, Camp Butler.

2/ Camp H. M. Smith is classified as a major activity only when considering O&MMC funding limitations for repair, minor construction and equipment installation prescribed in MCO P11000.5 and BMAR report submissions discussed in this Manual.

3/ This Manual is applicable only to those districts which are holders of class 1 or 2 real property.

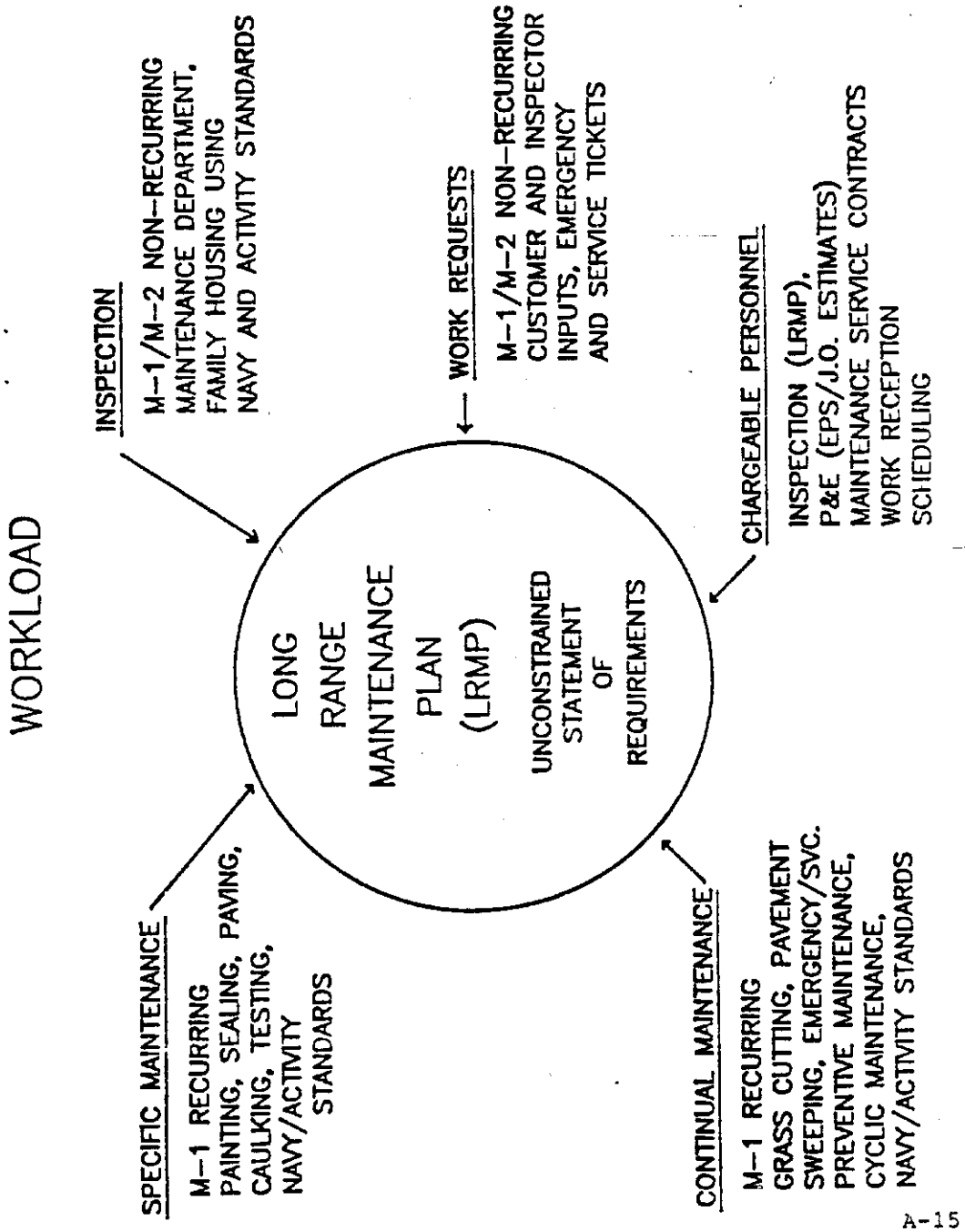
## APPENDIX A3: NAVFACENGCON PUBLICATION

| NAVFAC Publication No. | Title | NSN Stock Number |
|---|---|---|
| MO-100 | Maintenance of Grounds | 0525-1730010 |
| MO-101 | Maintenance of Misc. Ground Structured | 0525-173-0015 |
| MO-102 | Maintenance of Pavements | 0525-173-0020 |
| MO-103 | Maintenance of Trackage | 0525-173-0030 |
| MO-104 | Maintenance of Waterfront | 0525-173-0050 |
| MO-104 | Facilities Shop Edition | 0525-173-0051 |
| MO-11O | Building Maintenance Painting | 0525-173-0106 |
| MO-111 | Building Maintenance-Structures | 0525-173-0110 |
| MO-111 | Change 1 | 0525-173-0111 |
| MO-111 | Change 2 | 0525-173-0112 |
| MO-113 | Building Maintenance Roofing | 0525-173-0130 |
| MO-113 | Shop Edition | 0525-173-0131 |
| MO-114 | Building Maintenance Plumbing/Heat/Ventilation | 0525-173-0140 |
| MO-114 | Change 1 | 0525-173-0141 |
| MO-114 | Shop Edition | 0525-173-0145 |
| MO-115 | Building Maintenance-Air-Condition/Refrigeration | 0525-173-1000 |
| MO-115 | Change 1 | 0525-173-1001 |
| MO-116 | Building Maintenance-Electrical | 0525-173-1020 |
| MO-119 | Building Maintenance-Galley Equipment | 0525-173-1040 |

| NAVFAC Publication No. | Title | NSN Stock Number |
|---|---|---|
| MO-120 | Building Maintenance-Furniture/Furnishings | 0525-173-1045 |
| MO-200 | Electric Power Distribution System Maintenance | 0525-173-1050 |
| MO-200 | Change 1 | 0525-173-1051 |
| MO-201 | Operation of Electric Power Distribution System | 0525-173-1075 |
| MO-203 | Wire Communications & Signal Systems Maintenance Volume 1 - Basic Maintenance Practices, Common to' all Offices | 0525-173-1100 |
| MO-203 | Volume 2 - Step-By-Step Dial Central Office Equipment | 0525-173-1200 |
| MO-203 | Wire Communications & Signal Systems Maintenance Volume 3- Basic Maintenance Practices, All Relay Dial Central Office Equipment | 0525-173-1300 |
| MO-203 | Volume 4 - Basic Maintenance Practices, Common Battery Manual, Central Office | 0525-173-1400 |
| MO-203 | Volume 5 - Substation Maintenance | 0525-173-1500 |
| MO-203 | Volume 6 - Outside Plant Maintenance | 0525-173-1600 |
| MO-205 | Central Heating/Steam-Electric Generating Plants, Volume l | 0525-173-1800 |
| MO-206 | Operation and Maintenance of Air Compressor Plants | 0525-173-2000 |
| MO-207 | Operation and Maintenance of Internal Combustion Engines | 0525-173-2100 |
| MO-207 | Change 1 | 0525-173-2101 |

| NAVFAC Publication No. | Title | NSN Stock Number |
|---|---|---|
| MO-209 | Maintenance of Steam, Hot Water and Compressed Air Distribution Systems | 0525-173-2300 |
| MO-210 | Water Supply Systems | 0525-173-2400 |
| MO-213 | Refuse Disposal | 0525-173-3000 |
| MO-213 | Change 1 | 0525-173-3002 |
| MO-306 | Corrosion Prevention and Control | 0525-173-7000 |
| MO-307 | Corrosion Control by Cathodic Protection | 0525-173-7500 |
| MO-310 | Military Entomology Operational Handbook | 0525-173-7550 |
| MO-310 | Correction Sheets | 0525-173-7551 |
| MO-311 | Marine Biology Operational Handbook | 0525-173-7600 |
| MO-321 | Facilities Management | |
| MO-321.1 | Maintenance Management for Small Activites | 0525-LP-1733056 |
| MO-322 | Inspection of Shore Facilities | |
| | Volume 1 | |
| | Volume 2 | |
| | Volume 3 | 0525-LP-1733056 |
| | Volume 4 | |

APPENDIX A4: MAINTENANCE AND REPAIR WORKLOAD



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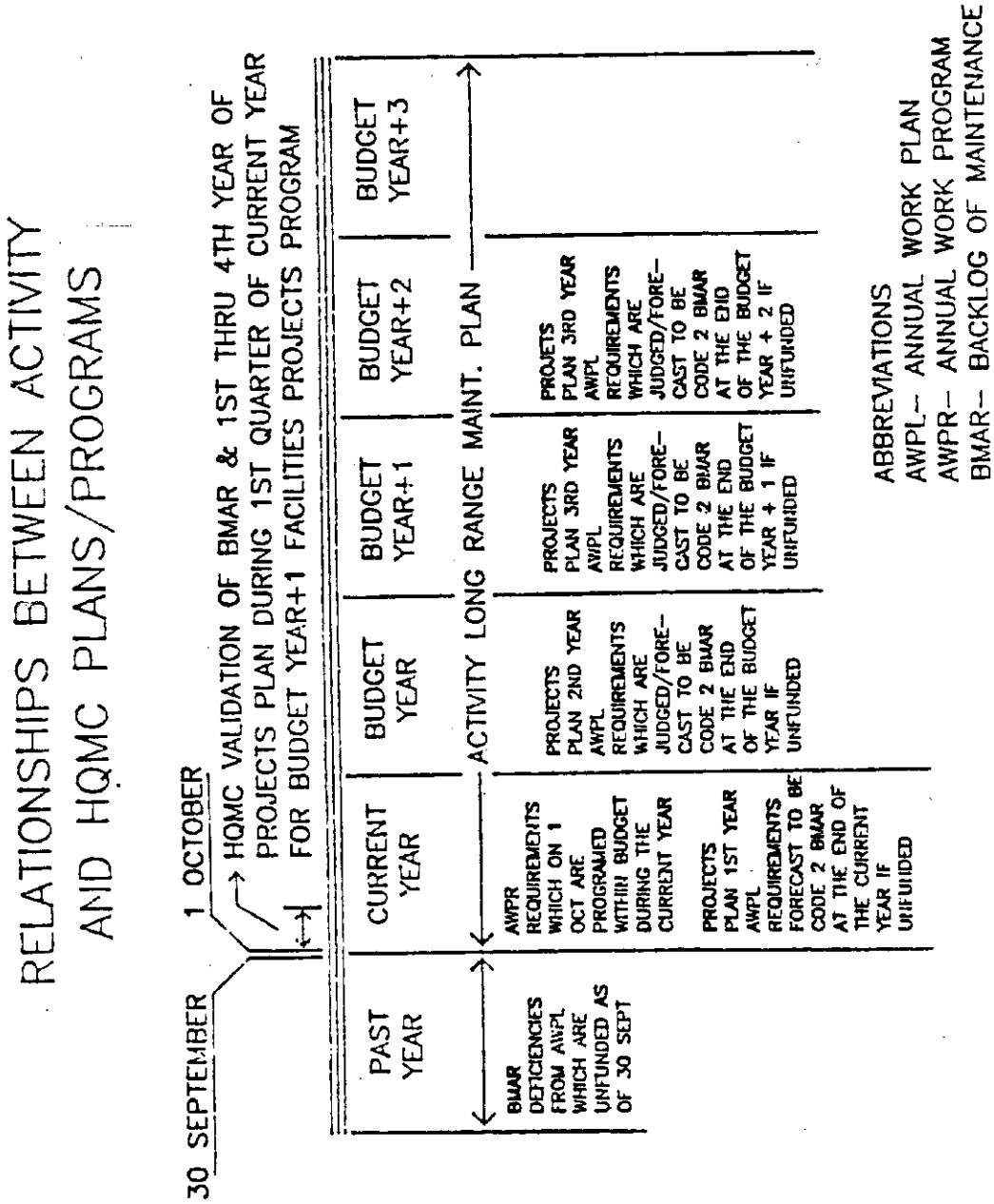
APPENDIX A5: RELATIONSHIPS BETWEEN ACTIVITY AND HAMC PLANS/PROGRAMS

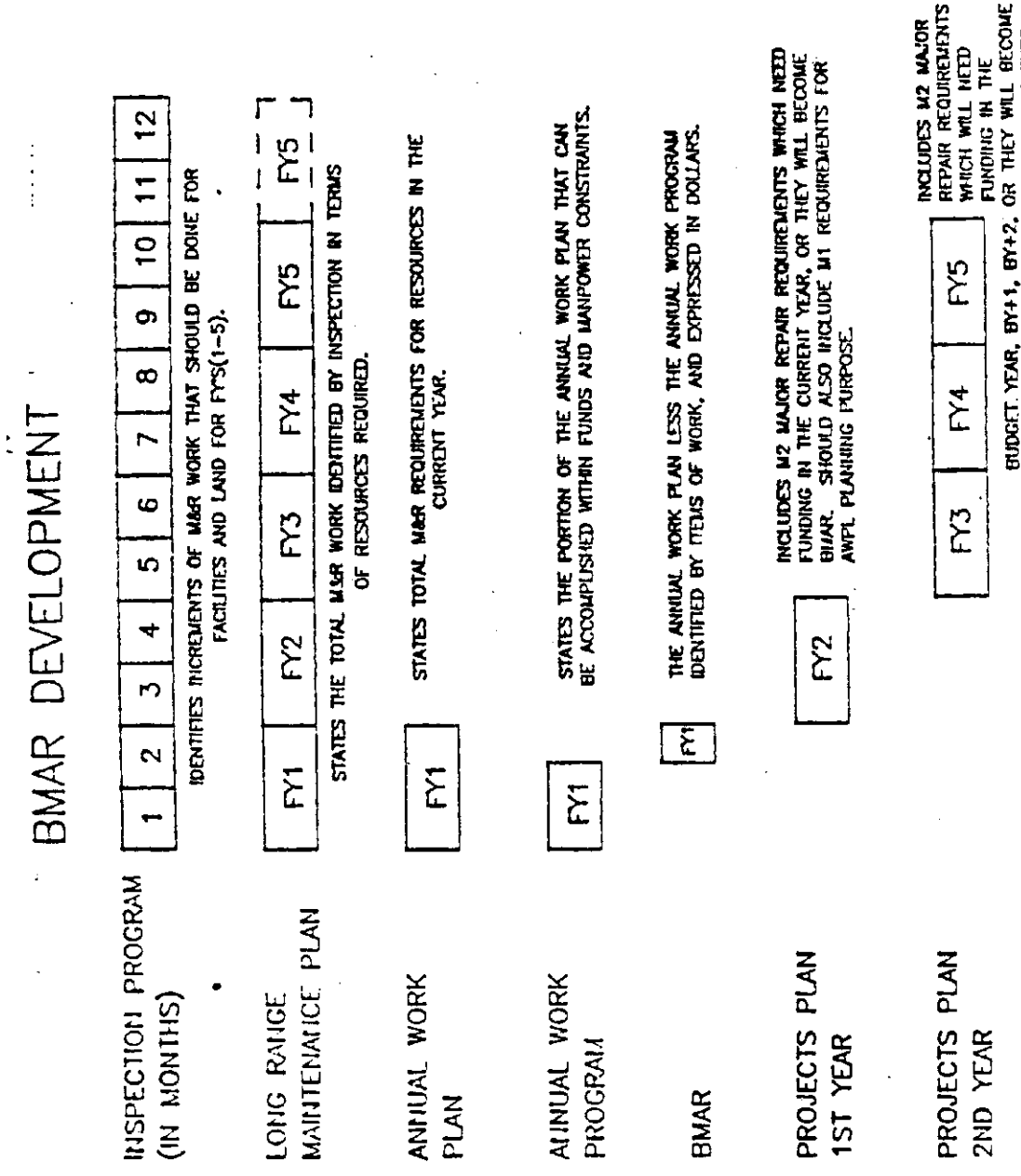
APPENDIX A5: RELATIONSHIPS BETWEEN ACTIVITY AND HQMC PLANS/PROGRAMS






A-17

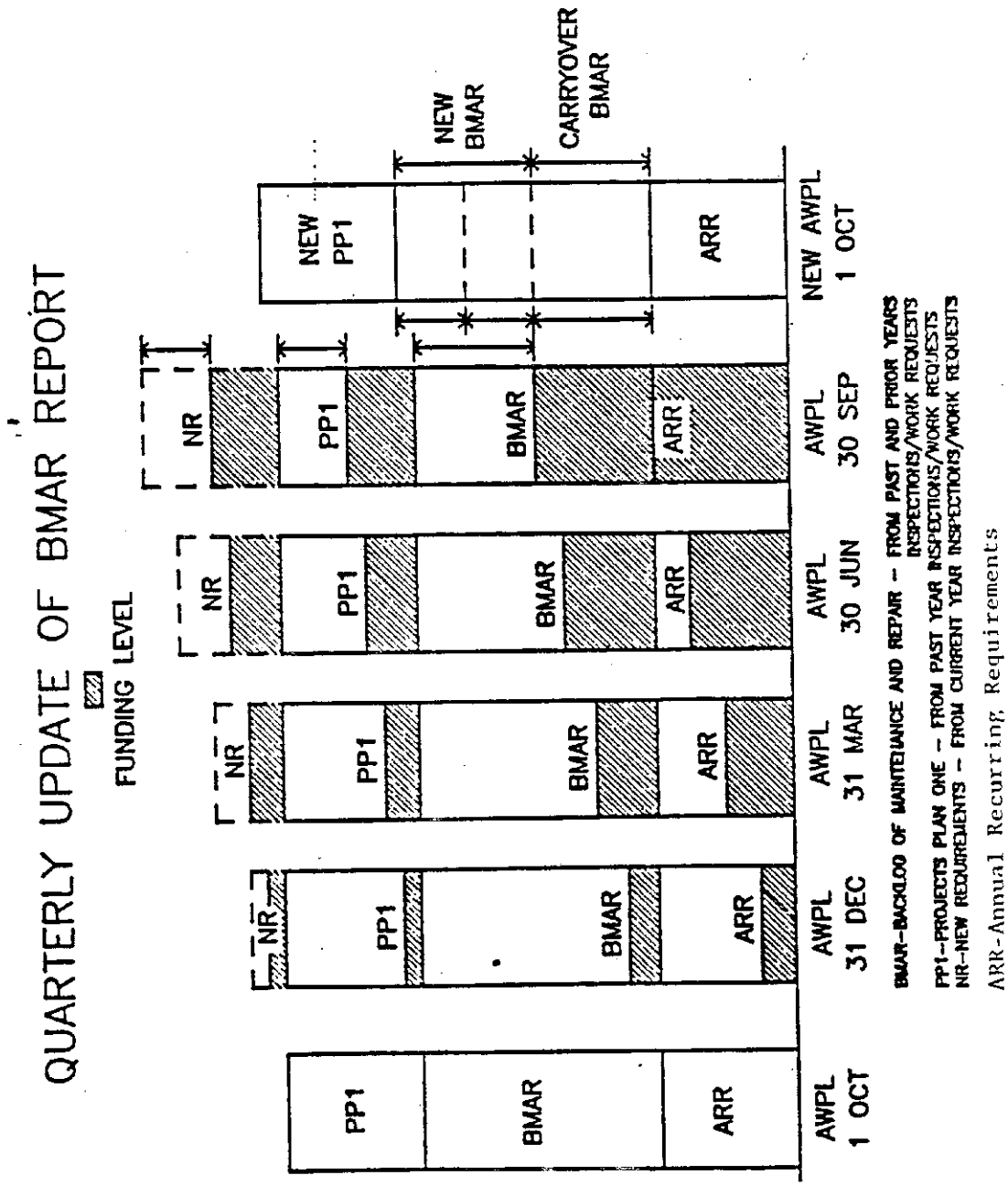
APPENDIX A6: BMAR AND PROJECT PLANS DEVELOPMENT






A-19

APPENDIX A7: ANNUAL WORK PLAN BASED ON CURRENT YEAR RECURRING, BMAR, PROJECT PLANS, AND NEW REQUIREMENTS



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APPENDIX B

SUGGESTED FORMATS


| Appendix | Title | Page |
|---|---|---|
| BI | Long-Range Maintenance Plans and Instructions for Preparation Thereof | B-3 |
| B2 | Maintenance Department work Program and Instructions for Preparation Thereof | B-15 |
| B3 | Workflow Diagram | B-17 |
| B4 | Inspector’s Report | B-21 |
| B5 | Work Request | B-23 |
| B6 | Job Order Format and Instructions for Preparation Thereof | B-25 |
| B7 | Job Order Continuation Sheet and Instructions for Preparation Thereof | B-29 |
| B6 | Maintenance Trouble/Service Ticket | B-31 |
| B9 | Work Center Master/Day Schedules and Instructions for Preparation Thereof | B-33 |

APPENDIX B1: LONG-RANGE MAINTENANCE PLANS AND INSTRUCTIONS FOR PREPARATION THEREOF

LONG-RANGE MAINTENANCE PLAN BUILDINGS

| FACIL. IDENT. | WORK DESCRIPTION | Costs ($000) 19_ | 19_ | 19_ | 19_ |
|---|---|---|---|---|---|
| Bldg. No. _____ | Paint: Exterior | | | | |
| DOD Cat. _____ | Interior | | | | |
| USE: | Roof | | | | |
| Over 10 yrs. ☐ | Structural | | | | |
| 3-10 yrs. ☐ | Elec/Mech | | | | |
| Under 3 yrs. ☐ | Heat/A.C. | | | | |
| Inactive ☐ | Other | | | | |
| Bldg. No. _____ | Paint: Exterior | | | | |
| DOD Cat. _____ | Interior | | | | |
| USE: | Roof | | | | |
| Over 10 yrs. ☐ | Structural | | | | |
| 3-10 yrs. ☐ | Elec/Mech | | | | |
| Under 3 yrs. ☐ | Heat/A.C. | | | | |
| Inactive ☐ | Other | | | | |
| Bldg. No. _____ | Paint: Exterior | | | | |
| DOD Cat. _____ | Interior | | | | |
| USE: | Roof | | | | |
| Over 10 yrs. ☐ | Structural | | | | |
| 3-10 yrs. ☐ | Elec/Mech | | | | |
| Under 3 yrs. ☐ | Heat/A.C. | | | | |
| Inactive ☐ | Other | | | | |



B-3

## LONG-RANGE MAINTENANCE PLAN PAVED AREAS

| FACIL. IDENT. | WORK DESCRIPTION | Costs ($000) 19__ | 19__ | 19__ | 19__ | 19__ |
|---|---|---|---|---|---|---|
| Airfield ☐ | | | | | | |
| Apron ☐ | Patch | | | | | |
| Taxiways ☐ | Seal Coat | | | | | |
| Roads ☐ | Resurface | | | | | |
| Sidewalk ☐ | Shoulder | | | | | |
| Other _____ | Right-of-Way | | | | | |
| Name _____ | Other | | | | | |
| From _____ | | | | | | |
| To _____ | | | | | | |
| Airfield ☐ | | | | | | |
| Apron ☐ | Patch | | | | | |
| Taxiways ☐ | Seal Coat | | | | | |
| Roads ☐ | Resurface | | | | | |
| Sidewalk ☐ | Shoulder | | | | | |
| Other _____ | Right-of-Way | | | | | |
| Name _____ | Other | | | | | |
| From _____ | | | | | | |
| To _____ | | | | | | |
| Airfield ☐ | | | | | | |
| Apron ☐ | Patch | | | | | |
| Taxiways ☐ | Seal Coat | | | | | |
| Roads ☐ | Resurface | | | | | |
| Sidewalk ☐ | Shoulder | | | | | |
| Other _____ | Right-of-Way | | | | | |
| Name _____ | Other | | | | | |
| From _____ | | | | | | |
| To _____ | | | | | | |

## LONG-RANGE MAINTENANCE PLAN OTHER FACILITIES

| FACIL. IDENT. | WORK DESCRIPTION | Costs ($000) | | | | |
|---|---|---|---|---|---|---|
| | | 19__ | 19__ | 19__ | 19__ | 19__ |
| Type or Name _____<br>DOD Cat. _____<br>Other _____ | | | | | | |
| | | | | | | |
| Type or Name _____<br>DOD Cat. _____<br>Other _____ | | | | | | |
| | | | | | | |
| Type or Name _____<br>DOD Cat. _____<br>Other _____ | | | | | | |

LONG-RANGE MAINTENANCE PLAN STEAM/HOT WATER SYSTEMS

| FACIL. IDENT. | WORK DESCRIPTION | Costs ($000) 19__ | 19__ | 19__ | 19__ | 19__ |
|---|---|---|---|---|---|---|
| Plant Bldg. No. _____ Fuel _____ | Boiler | | | | | |
| | Burners, Controls, Fuel Handling | | | | | |
| | Air Comp., Valves, Pumps, Fans | | | | | |
| | Stacks and Breeching | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ | Distribution Lines: Above Grnd. | | | | | |
| | Below Grnd. | | | | | |
| | Other | | | | | |
| Plant Bldg. No. _____ Fuel _____ | Boiler | | | | | |
| | Burners, Controls, Fuel Handling | | | | | |
| | Air Comp., Valves, Pumps, Fans | | | | | |
| | Stacks and Breeching | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ | Distribution Lines: Above Grnd. | | | | | |
| | Below Grnd. | | | | | |
| | Other | | | | | |
| Plant Bldg. No. _____ Fuel _____ | Boiler | | | | | |
| | Burners, Controls, Fuel Handling | | | | | |
| | Air Comp., Valves, Pumps, Fans | | | | | |
| | Stacks and Breeching | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ | Distribution Lines: Above Grnd. | | | | | |
| | Below Grnd. | | | | | |
| | Other | | | | | |

## LONG-RANGE MAINTENANCE PLAN ELECTRIC SYSTEMS

| FACIL. IDENT. | WORK DESCRIPTION | Costs ($000) 19— | 19— | 19— | 19— | 19 — |
|---|---|---|---|---|---|---|
| Plant Bldg. | Equipment: Generating | | | | | |
| No. _____ | Associated | | | | | |
| Fuel _____ | Other | | | | | |
| Distrib. Sys. | Poles and Hardware/Conductor | | | | | |
| From: _____ | Substations | | | | | |
| To: _____ | Manholes | | | | | |
| Above Grnd. | Tunnels | | | | | |
| Below Grnd. | Other | | | | | |
| Plant Bldg. | Equipment: Generating | | | | | |
| No. _____ | Associated | | | | | |
| Fuel _____ | Other | | | | | |
| Distrib. Sys. | Poles and Hardware/Conductor | | | | | |
| From: _____ | Substations | | | | | |
| To: _____ | Manholes | | | | | |
| Above Grnd. | Tunnels | | | | | |
| Below Grnd. | Other | | | | | |
| Plant Bldg. | Equipment: Generating | | | | | |
| No. _____ | Associated | | | | | |
| Fuel _____ | Other | | | | | |
| Distrib. Sys. | Poles and Hardware/Conductor | | | | | |
| From: _____ | Substations | | | | | |
| To: _____ | Manholes | | | | | |
| Above Grnd. | Tunnels | | | | | |
| Below Grnd. | Other | | | | | |

## LONG-RANGE MAINTENANCE PLAN WATER TREATMENT AND SUPPLY SYSTEMS

| FACIL. IDENT. | WORK DESCRIPTION | Costs ($000) 19__ | 19__ | 19__ | 19__ | 19__ |
|---|---|---|---|---|---|---|
| Plant Bldg. No. _____ | Equipment: Treatment | | | | | |
| | Associated | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ Above Grnd. Below Grnd. | Pipes and Valves | | | | | |
| | Pumping Stations | | | | | |
| | Manholes | | | | | |
| | Tunnels | | | | | |
| | Other | | | | | |
| Plant Bldg. No. _____ | Equipment: Treatment | | | | | |
| | Associated | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ Above Grnd. Below Grnd. | Pipes and Valves | | | | | |
| | Pumping Stations | | | | | |
| | Manholes | | | | | |
| | Tunnels | | | | | |
| | Other | | | | | |
| Plant Bldg. No. _____ | Equipment: Treatment | | | | | |
| | Associated | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ Above Grnd. Below Grnd. | Pipes and Valves | | | | | |
| | Pumping Stations | | | | | |
| | Manholes | | | | | |
| | Tunnels | | | | | |
| | Other | | | | | |

## LONG-RANGE MAINTENANCE PLAN SEWAGE TREATMENT AND COLLECTION SYSTEMS

| FACIL. IDENT. | WORK DESCRIPTION | Costs ($000) 19__ | 19__ | 19__ | 19__ | 19__ |
|---|---|---|---|---|---|---|
| Plant Bldg. No. _____ | Equipment: Treatment | | | | | |
| | Associated | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ | Pipes and Valves | | | | | |
| | Lift Stations | | | | | |
| | Manholes | | | | | |
| | Tunnels | | | | | |
| | Other | | | | | |
| Plant Bldg. No. _____ | Equipment: Treatment | | | | | |
| | Associated | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ | Pipes and Valves | | | | | |
| | Lift Stations | | | | | |
| | Manholes | | | | | |
| | Tunnels | | | | | |
| | Other | | | | | |
| Plant Bldg. No. _____ | Equipment: Treatment | | | | | |
| | Associated | | | | | |
| | Other | | | | | |
| Distrib. Sys. From: _____ To: _____ | Pipes and Valves | | | | | |
| | Lift Stations | | | | | |
| | Manholes | | | | | |
| | Tunnels | | | | | |
| | Other | | | | | |

LONG RANGE MAINTENANCE PLAN CONTINUAL MAINTENANCE

| WORK DESCRIPTION | UNIT OF MEASURE | CIVILIAN END STRENGTH | CIVILIAN MAN YEAR | CIVILIAN COST | MATERIAL COST | EQUIPMENT COST | CONTRACT COST | TOTAL COST |
|---|---|---|---|---|---|---|---|---|
| 1. CONINUAL MAINTENANCE | | | | | | | | |
| Cyclical Maintenance | | | | | | | | |
| Emergency Service Work | NO. | | | | | | | |
| Grass Cutting | ACRE | | | | | | | |
| Other (Describe) | | | | | | | | |
| 2. MECHANICAL EQUIPMENT PREVENTIVE MAINTENANCE | | | | | | | | |
| A/C Compressors | EACH | | | | | | | |
| Pumps | EACH | | | | | | | |
| Fans | EACH | | | | | | | |
| Controls | EACH | | | | | | | |
| Valves | EACH | | | | | | | |
| Boilers | EACH | | | | | | | |
| Liquids, Fluids & Gas | EACH | | | | | | | |
| Filters | EACH | | | | | | | |
| Clutches | EACH | | | | | | | |
| Bearings | EACH | | | | | | | |
| Engines | EACH | | | | | | | |
| Other (Describe) | | | | | | | | |
| 3. ELECTRICAL EQUIPMENT PREVENTIVE MAITNENANCE | | | | | | | | |
| Motors | EACH | | | | | | | |
| Electric Panels | EACH | | | | | | | |
| Switches | EACH | | | | | | | |
| Lighting | EACH | | | | | | | |
| Traffic Signals | EACH | | | | | | | |
| Controls | EACH | | | | | | | |
| Meters | EACH | | | | | | | |
| Switch Gear | EACH | | | | | | | |
| Transformers | EACH | | | | | | | |
| Emergency Generator | EACH | | | | | | | |
| Other (Describe) | | | | | | | | |

LONG RANGE MAINTENANCE PLAN CONTINUAL MAINTENANCE

| WORK DESCRIPTION | UNIT OF MEASURE | CIVILIAN END STRENGTH | CIVILIAN MAN YEAR | CIVILIAN COST | MATERIAL COST | EQUIPMENT COST | CONTRACT COST | TOTAL COST |
|---|---|---|---|---|---|---|---|---|
| 1. CONINUAL MAINTENANCE | | | | | | | | |
| Cyclical Maintenance | | | | | | | | |
| Emergency Service Work | NO. | | | | | | | |
| Grass Cutting | ACRE | | | | | | | |
| Other (Describe) | | | | | | | | |
| 2. MECHANICAL EQUIPMENT PREVENTIVE MAINTENANCE | | | | | | | | |
| A/C Compressors | EACH | | | | | | | |
| Pumps | EACH | | | | | | | |
| Fans | EACH | | | | | | | |
| Controls | EACH | | | | | | | |
| Valves | EACH | | | | | | | |
| Boilers | EACH | | | | | | | |
| Liquids, Fluids & Gas | EACH | | | | | | | |
| Filters | EACH | | | | | | | |
| Clutches | EACH | | | | | | | |
| Bearings | EACH | | | | | | | |
| Engines | EACH | | | | | | | |
| Other (Describe) | | | | | | | | |
| 3. ELECTRICAL EQUIPMENT PREVENTIVE MAITNENANCE | | | | | | | | |
| Motors | EACH | | | | | | | |
| Electric Panels | EACH | | | | | | | |
| Switches | EACH | | | | | | | |
| Lighting | EACH | | | | | | | |
| Traffic Signals | EACH | | | | | | | |
| Controls | EACH | | | | | | | |
| Meters | EACH | | | | | | | |
| Switch Gear | EACH | | | | | | | |
| Transformers | EACH | | | | | | | |
| Emergency Generator | EACH | | | | | | | |
| Other (Describe) | | | | | | | | |

Instruction for Preparing the Long-Range Maintenance Plan

1. Text Reference. See chapter 3, paragraph 3205.2.

2. Format. This appendix presents the recommended format for a 5-year LRMP grouped by buildings, paved areas, and common utility systems. The format provides for a grouping headed "Other Facilities" for real property line items, such as grounds, waterfront, structures, railroad trackage, etc. Similarly, the format provides for a grouping headed "Other Utility Systems" for miscellaneous utilities systems, such as air-conditioning, refrigeration, cold storage, and gas. In addition, in each grouping under the heading "Work Description," line items headed "Other" are provided for work not otherwise listed. The work description column provides space for pertinent notations. Continual maintenance and overhead items to support the plan should be detailed as indicated.

3. Costs. Express costs for the anticipated specific maintenance and repair in thousands to the closest decimal point (e.g., record $12,458 as 12.5) for line items applicable to the identified facility.

4. Facil. Ident. Enter the facility identification data which is largely self-explanatory. The following guidance is offered:

a. DoD Cat. Record the DoD basic category, three-digit code, identifying the facility as specified in NAVFAC P-72 (Category Codes for Classifying Real Property of the Navy).

b. Building. Include the buildings which are housing the utility plants.

(1) Bldg. No. Record the official identification number of the building.

(2) Use. Indicate the major use of the building, and place an "X" on the line indicating the planned use. (See paragraph 3102.2, preceding.)

c. Paved Areas and Utilities Systems

(1) "From-To" Data. Enter the designation identifying each quantitative segment of the paved area or utility distribution line for which specific maintenance or repair can be managed in 1 fiscal year.

(2) Utilities Systems. Exclude data related to the building which is housing the utility plant. (See paragraph 4b, preceding.)

d. Support Item

(1) Continual Maintenance. Includes preventive (mechanical and electrical) and cyclical maintenance and standing job order work such as grass cutting and emergency service work.

(2) Overhead Items. Includes indirect labor cost such as work reception and control, inspection, planning and estimating, maintenance service contracts, and scheduling.

REAL PROPERTY FACILITIES MANUAL

# APPENDIX B2: MAINTENANCE DEPARTMENT WORK PROGRAM AND INSTRUCTIONS FOR PREPARATION THEREOF

APPENDIX B2: MAINTENANCE DEPARTMENT WORK PROGRAM AND INSTRUCTIONS FOR PREPARATION THEREOF

MAINTENANCE DEPARTMENT WORK PROGRAM

Period _____

| Job Order No. | Brief Job Title | FCC: M | | FCC: P | | FCC: R | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Hrs. | Total $ | Hrs. | Total $ | Hrs. | Total $ | Hrs. | Total $ |
| | Standing Job Orders | | | | | | | | |
| | | | | | | | | | |
| | Subtotal | | | | | | | | |
| | Specific Jobs | | | | | | | | |
| | | | | | | | | | |
| | Subtotal | | | | | | | | |
| Total | | | | | | | | | |
| Resources Available | | | | | | | | | |
| % of Total to Available Resources | | | | | | | | | |

Approved: _____

## Instructions for Preparing the Maintenance Organization Work Program

1. Text Reference. See chapter 3, paragraph 3207.

2. General Information. The recommended format may be used for annual and quarterly work programs which may be expressed in total estimated costs.

3. Preparation. Record the following:

a. Period. The period covered (e.g., FY 1971, 1st Qtr FY 1971).

b. Columnar Entries. Record the estimated number of hours and total costs expressed in whole dollars for work encompassing FCC's M, P, and R supported with facilities maintainance department funds. In the unheaded column, identify the customer or fund source; and record the estimated number of hours and total costs for work not funded by the maintenance organization (e.g., Military Family Housing, Marine Corps Industrial Fund, Naval Hospital, etc.) Record as follows:

(1) Job Order No. Enter the standing job order number and the specific job order number if assigned to the work described.

(2) Brief Job Title. Enter the short title descriptive of the work for each standing job order and specific job.

(3) Standing Job Orders Subtotal. Enter the subtotal of hours and costs.

(4) Specific Jobs. List each known and anticipated job, and identify by job order if assigned together with a short title descriptive of the work.

(5) Specific Jobs Subtotal. Enter the subtotal of hours and costs.

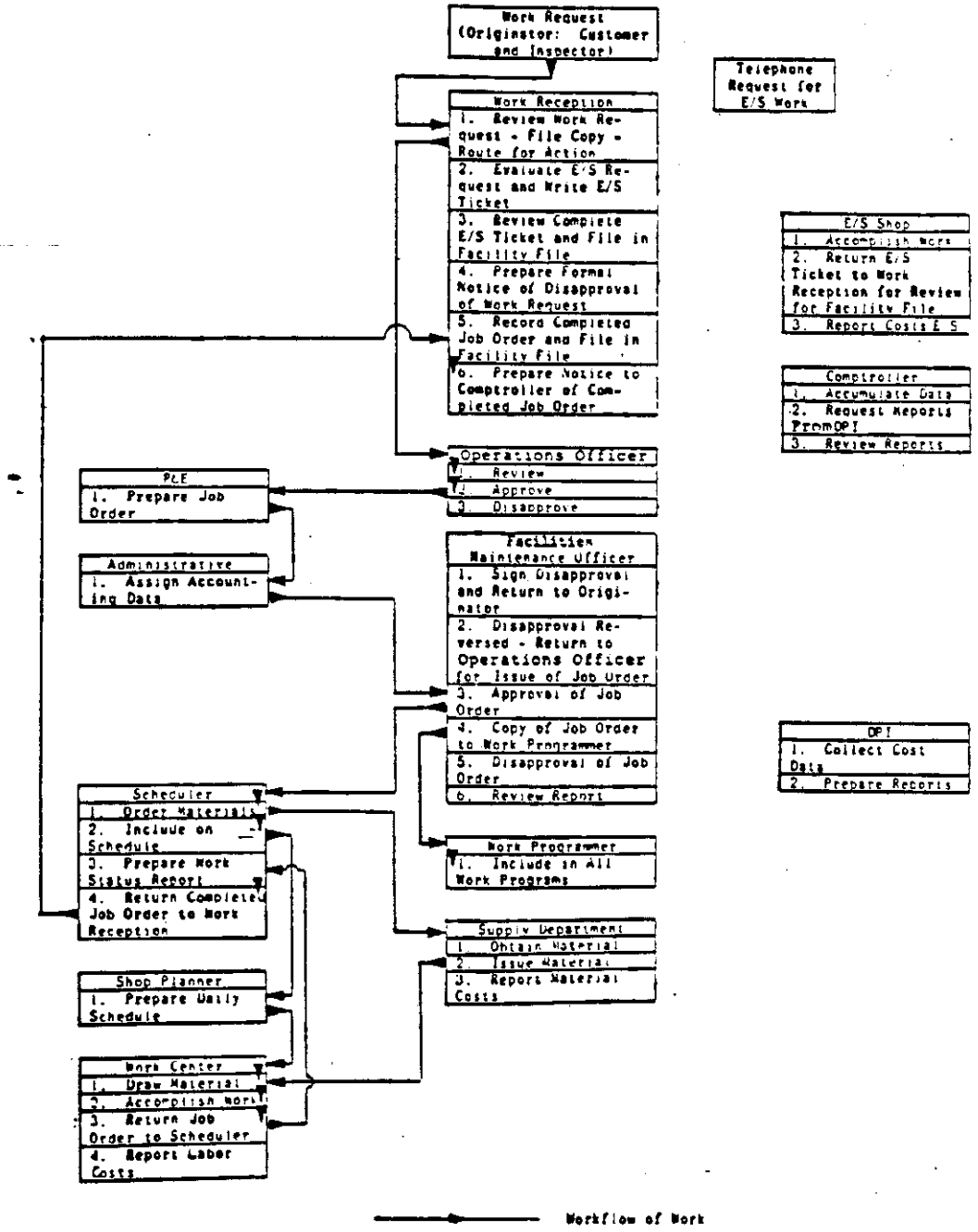
(6) Total. Enter the sum of the subtotals of standing job orders and specific jobs.

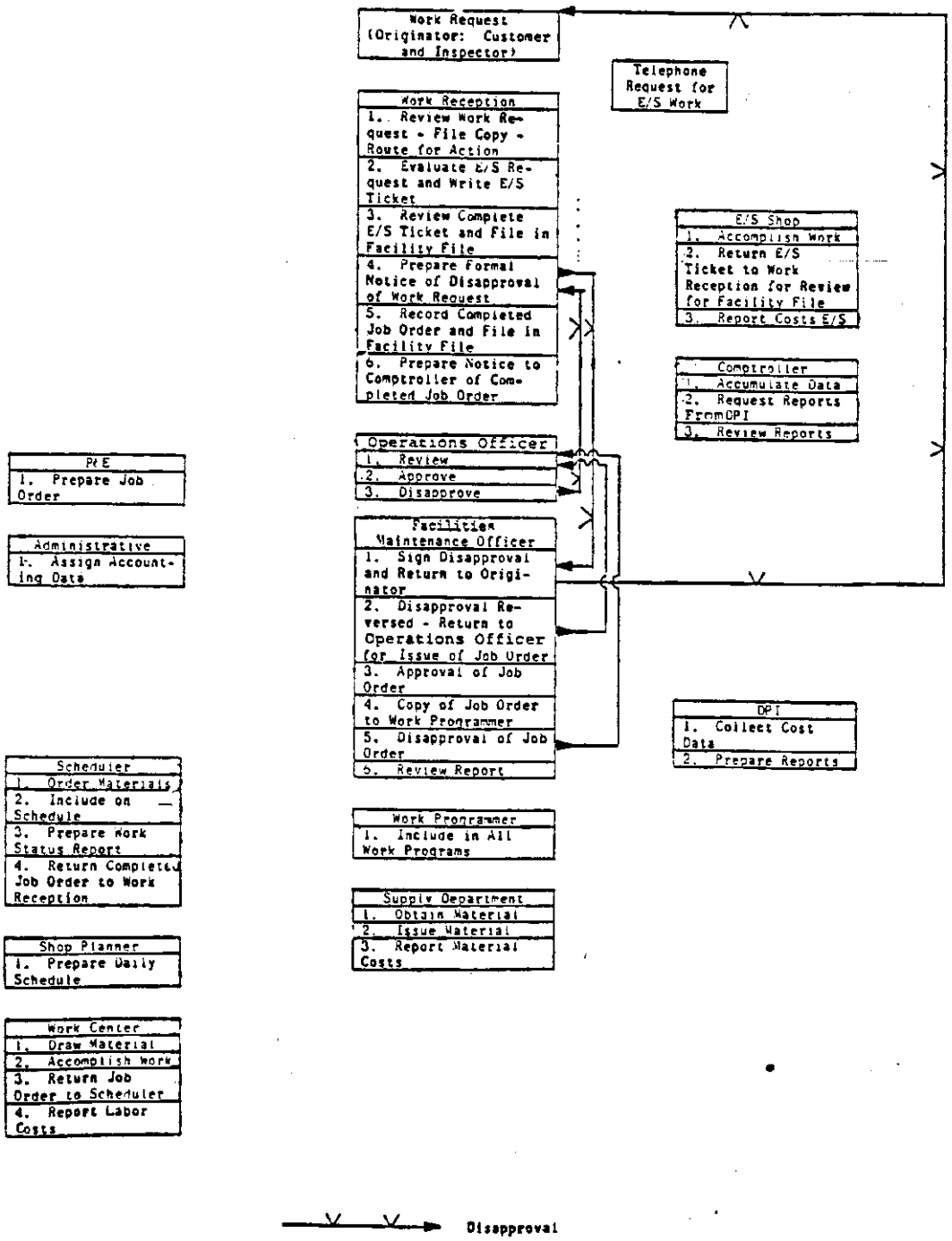
(7) Resources Available. The total hours programmed and total funds available.

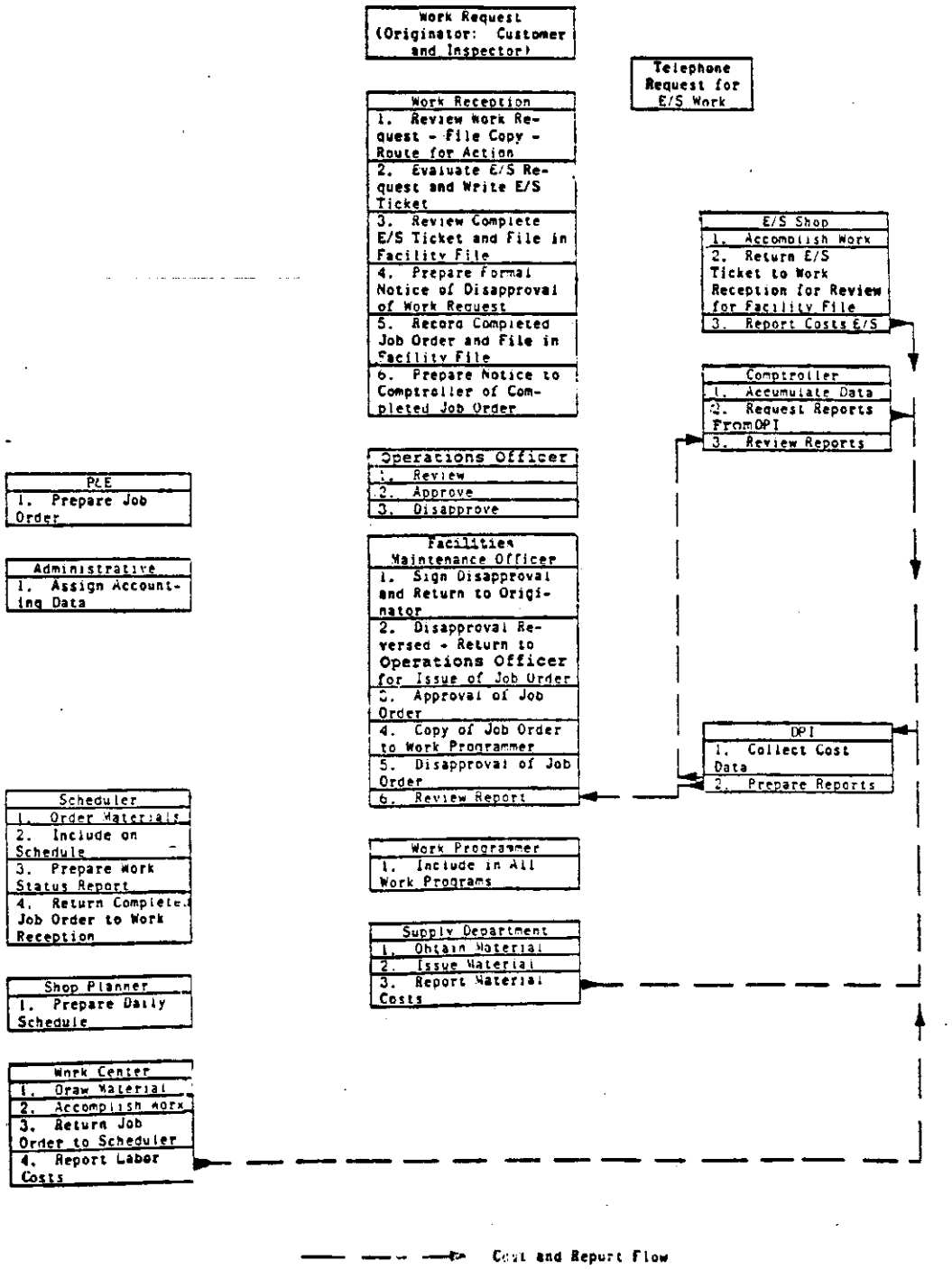
(8) Percent of Total to Available Resources. In each column, record the percentages to the nearest two whole digits derived by dividing the total resources available (total hours and funds) by the total job requirements.

(9) Approved. Sign to indicate approval of the program. (Signatures may be that of the director of facilities, chief of staff, base maintenance officer, or commanding general.)

# APPENDIX B3: WORKFLOW DIAGRAM




Work Request (Originator: Customer and Inspector)
Telephone Request for E/S Work
Work Reception
1. Review Work Request - File Copy - Route for Action
2. Evaluate E/S Request and Write E/S Ticket
3. Review Complete E/S Ticket and File in Facility File
4. Prepare Formal Notice of Disapproval of Work Request
5. Record Completed Job Order and File in Facility File
6. Prepare Notice to Comptroller of Completed Job Order
E/S Shop
1. Accomplish Work
2. Return E/S Ticket to Work Reception for Review for Facility File
3. Report Costs E/S
Comptroller
1. Accumulate Data
2. Request Reports FromDPI
3. Review Reports
Operations Officer
1. Review
2. Approve
3. Disapprove
Facilities Maintenance Officer
1. Sign Disapproval and Return to Originator
2. Disapproval Reversed - Return to Operations Officer for Issue of Job Order
3. Approval of Job Order
4. Copy of Job Order to Work Programmer
5. Disapproval of Job Order
6. Review Report
DPI
1. Collect Cost Data
2. Prepare Reports
Work Programmer
1. Include in All Work Programs
Supply Department
1. Obtain Material
2. Issue Material
3. Report Material Costs
P&E
1. Prepare Job Order
Administrative
1. Assign Accounting Data
Scheduler
1. Order Materials
2. Include on Schedule
3. Prepare Work Status Report
4. Return Completed Job Order to Work Reception
Shop Planner
1. Prepare Daily Schedule
Work Center
1. Draw Material
2. Accomplish Work
3. Return Job Order to Scheduler
4. Report Labor Costs
Disapproval


Work Request (Originator: Customer and Inspector)
Telephone Request for E/S Work
Work Reception
1. Review Work Request - File Copy - Route for Action
2. Evaluate E/S Request and Write E/S Ticket
3. Review Complete E/S Ticket and File in Facility File
4. Prepare Formal Notice of Disapproval of Work Request
5. Record Completed Job Order and File in Facility File
6. Prepare Notice to Comptroller of Completed Job Order
E/S Shop
1. Accomplish Work
2. Return E/S Ticket to Work Reception for Review for Facility File
3. Report Costs E/S
Comptroller
1. Accumulate Data
2. Request Reports From DPI
3. Review Reports
Operations Officer
1. Review
2. Approve
3. Disapprove
PLE
1. Prepare Job Order
Administrative
1. Assign Accounting Data
Facilities Maintenance Officer
1. Sign Disapproval and Return to Originator
2. Disapproval Reversed - Return to Operations Officer for Issue of Job Order
3. Approval of Job Order
4. Copy of Job Order to Work Programmer
5. Disapproval of Job Order
6. Review Report
DPI
1. Collect Cost Data
2. Prepare Reports
Scheduler
1. Order Materials
2. Include on Schedule
3. Prepare Work Status Report
4. Return Completed Job Order to Work Reception
Work Programmer
1. Include in All Work Programs
Supply Department
1. Obtain Material
2. Issue Material
3. Report Material Costs
Shop Planner
1. Prepare Daily Schedule
Work Center
1. Draw Material
2. Accomplish Work
3. Return Job Order to Scheduler
4. Report Labor Costs
Cost and Report Flow

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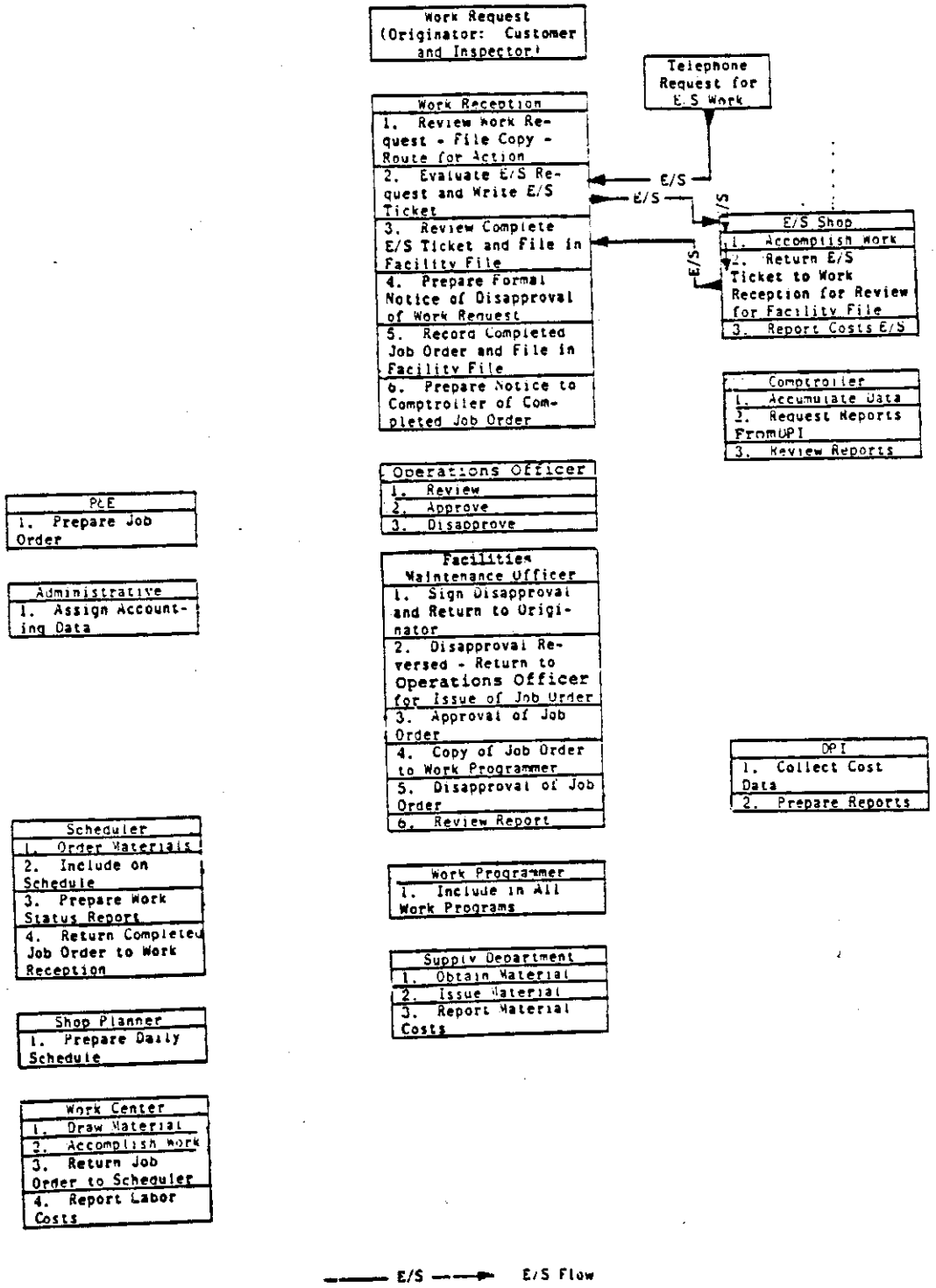
Work Request (Originator: Customer and Inspector)
Telephone Request for E/S Work
Work Reception
1. Review Work Request - File Copy - Route for Action
2. Evaluate E/S Request and Write E/S Ticket
3. Review Complete E/S Ticket and File in Facility File
4. Prepare Formal Notice of Disapproval of Work Request
5. Record Completed Job Order and File in Facility File
6. Prepare Notice to Comptroller of Completed Job Order
E/S
E/S
E/S
E/S
E/S Shop
1. Accomplish Work
2. Return E/S Ticket to Work Reception for Review for Facility File
3. Report Costs E/S
Comptroller
1. Accumulate Data
2. Request Reports FromDPI
3. Review Reports
Operations Officer
1. Review
2. Approve
3. Disapprove
P&E
1. Prepare Job Order
Administrative
1. Assign Accounting Data
Facilities Maintenance Officer
1. Sign Disapproval and Return to Originator
2. Disapproval Reversed - Return to Operations Officer for Issue of Job Order
3. Approval of Job Order
4. Copy of Job Order to Work Programmer
5. Disapproval of Job Order
6. Review Report
DPI
1. Collect Cost Data
2. Prepare Reports
Scheduler
1. Order Materials
2. Include on Schedule
3. Prepare Work Status Report
4. Return Completed Job Order to Work Reception
Work Programmer
1. Include in All Work Programs
Supply Department
1. Obtain Material
2. Issue Material
3. Report Material Costs
Shop Planner
1. Prepare Daily Schedule
Work Center
1. Draw Material
2. Accomplish Work
3. Return Job Order to Scheduler
4. Report Labor Costs
E/S
E/S Flow

# APPENDIX B4: INSPECTOR'S REPORT

INSPECTOR'S REPORT
NAVFAC 11012/30 (REV. 9-72)
S/N 0105-LF-003-7002

*Instructions for completing form are contained in NAVFAC MO-322, Vol. I*

☐ DEIS ☐ CONTROL INSPECTION

| 1. FACILITY NO. | 2. COST ACCOUNT NO. | 3. F & C | 4. CATEGORY CODE | 5. FUNCT. ACCT. NO. | 6. S. M. C. | 7. DATE SCHED. ACT. | 8. NAVF INSPECTION NO. INITIAL | DATE |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

9. DESCRIPTION AND LOCATION

| 10. INSPECTOR | 11. INSPECTION TIME USED | 12. SHEET NO. OF |
|---|---|---|
| | | |

13. DESCRIPTION OF ITEM AND DEFICIENCY

FOR PREPARATION OF INSPECTOR'S REPORT,
CONSULT NAVFAC MO-322, VOL. 1, CHAPTER 2,
SECTION 6
(INSPECTION FOR MAINTENANCE OF PUBLIC
WORKS AND PUBLIC UTILITIES).

GPO 1975—0—609-641

APPENDIX B-5: WORK REQUEST

## APPENDIX B5: WORK REQUEST

**WORK REQUEST (MAINTENANCE MANAGEMENT)**
NAVFAC 9-11014, 79 (REV. 2-68) S/N 0105-003-7936
Supersedes NAVDOCKS 2331

(PW Department see instructions in NAVFAC MO-121)

Requester see instructions on Reverse side

**PART I – REQUEST (Filled out by Requester)**

1. FROM: Supply Officer
2. REQUEST NO.: 12-80
3. TO: Facilities Maintenance Officer
4. DATE OF REQUEST: 26 Jun 1980
5. REQUEST FOR: [X] COST ESTIMATE [ ] PERFORMANCE OF WORK
5a. REQUEST WORK START:
6. FOR FURTHER INFORMATION CALL: CWO J. M. Smith Bldg. 2008 Ext. 25792
7. SKETCH/PLAN ATTACHED: [ ] YES [X] NO

8. DESCRIPTION OF WORK AND JUSTIFICATION (Including location, type, size, quantity, etc.)

Fabricate and erect extension to wood storage rack, southwest corner, Bldg. 1071. Start from the south wall and extend through bays 3-4 approx: 30' long
2' deep
10' high

Storage rack to be anchored to wall and have 5 shelves spaced approx. 2' apart. Shelves should be capable of storage material weighing up to 5 lbs. per sq. ft. No paint required.

Extra storage space needed for small shop store items.

9. FUNDS CHARGEABLE:
10. SIGNATURE (Requesting Official): C. D. Haynes, Maj. C D Haynes

**PART II – COST ESTIMATE**
(Filled out by Maintenance Control Division if estimate requested)

11. TO: Supply Officer
12. ESTIMATE NO.: 3070

| 13. COST ESTIMATE | | |
|---|---|---|
| a. Labor | $ | 140. |
| b. Material | $ | 90. |
| c. Overhead and/or Surcharge | $ | |
| d. Equipment Rental/Usage | $ | |
| e. Contingency | $ | 25. |
| f. TOTAL | $ | 255. |

14. SKETCH/PLAN ATTACHED: [ ] YES [X] NO

15. [ ] APPROVED. PROGRAMMING TO START IN 30
[ ] APPROVED. BASED ON PRESENT WORKLOAD, THIS JOB CAN BE PROGRAMMED TO START IN _____, IF AUTHORIZED BY 25TH OF _____ AND FUNDS ARE MADE AVAILABLE.
[ ] DISAPPROVED. (See Reverse side)

16. SIGNATURE: G. L. Mitchell
17. DATE: 3 Jul 1980

**PART III – ACTION (Filled out by Requester)**

18. TO: Facilities Mainteannce Officer
19. AUTHORIZATION TO PROCEED IS ATTACHED (Check one if other than PW funds are involved) [ ] NAVCOMPT 148 [X] OTHER
20. WORK REQUESTED [ ] HAS BEEN CANCELLED [ ] HAS BEEN DEFERRED [ ] WILL BE PERFORMED BY OTHERS
21. SIGNATURE: C. D. Haynes, Maj. C D Haynes
22. DATE: 7 Jul 1980

(See Part IV on Reverse side)



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## INSTRUCTIONS

### IF ESTIMATE IS DESIRED BEFORE WORK IS STARTED

Requestor fills in all items in Part I, checks "Cost Estimate" in item 3, attaches sketch or plan if necessary, and checks proper block in item 7. Requestor retains last copy and forwards balance to Public Works Department.

If the Work Request is approved, the original and first copy will be returned to the requestor with Part II completed. If the requestor desires the work to proceed in accordance with the estimate provided, he should fill in Part III, checking proper block in item 19 and attaching the document citing the funds to be used. If the requestor decides not to authorize the work, the appropriate box in item 20 should be checked. The original form, in either case, is returned to the Public Works Department.

If the Work Request is disapproved, the reasons for disapproval will be stated in Part IV, signed by the Public Works Officer, and the original and one copy returned to the requestor.

### IF ESTIMATE IS NOT DESIRED BEFORE WORK IS STARTED AND FUNDS ARE NOT UNDER COGNIZANCE OF PWO

Requestor fills in all items in Parts I and III except item 20, checks "Performance of Work" in item 3, attaches sketch or plan if necessary, checks proper block in item 7, checks proper block in item 19, and attaches document citing the funds to be used. Requestor retains last copy and forwards balance to Public Works Department.

If the Work Request is approved, the first copy will be returned to the requestor with items 11, 12, 15, 16, and 17 of Part II completed.

If the Work Request is disapproved, the reasons for disapproval will be stated in Part IV, signed by the Public Works Officer, and the original and one copy returned to requestor.

### IF ESTIMATE IS NOT DESIRED BEFORE WORK IS STARTED AND FUNDS ARE UNDER COGNIZANCE OF PWO

Requestor fills in all items in Part I, checks "Performance of Work" in item 3, attaches sketch or plan if necessary, and checks proper block in item 7. Requestor retains last copy and forwards balance to the Public Works Department.

If the Work Request is approved, the first copy will be returned to the requestor with items 11, 12, 15 as applicable, 16 and 17 of Part II completed.

If the Work Request is disapproved, the reasons for disapproval will be stated in Part IV, signed by the Public Works Officer, and the original and one copy returned to requestor.

## PART IV - REMARKS



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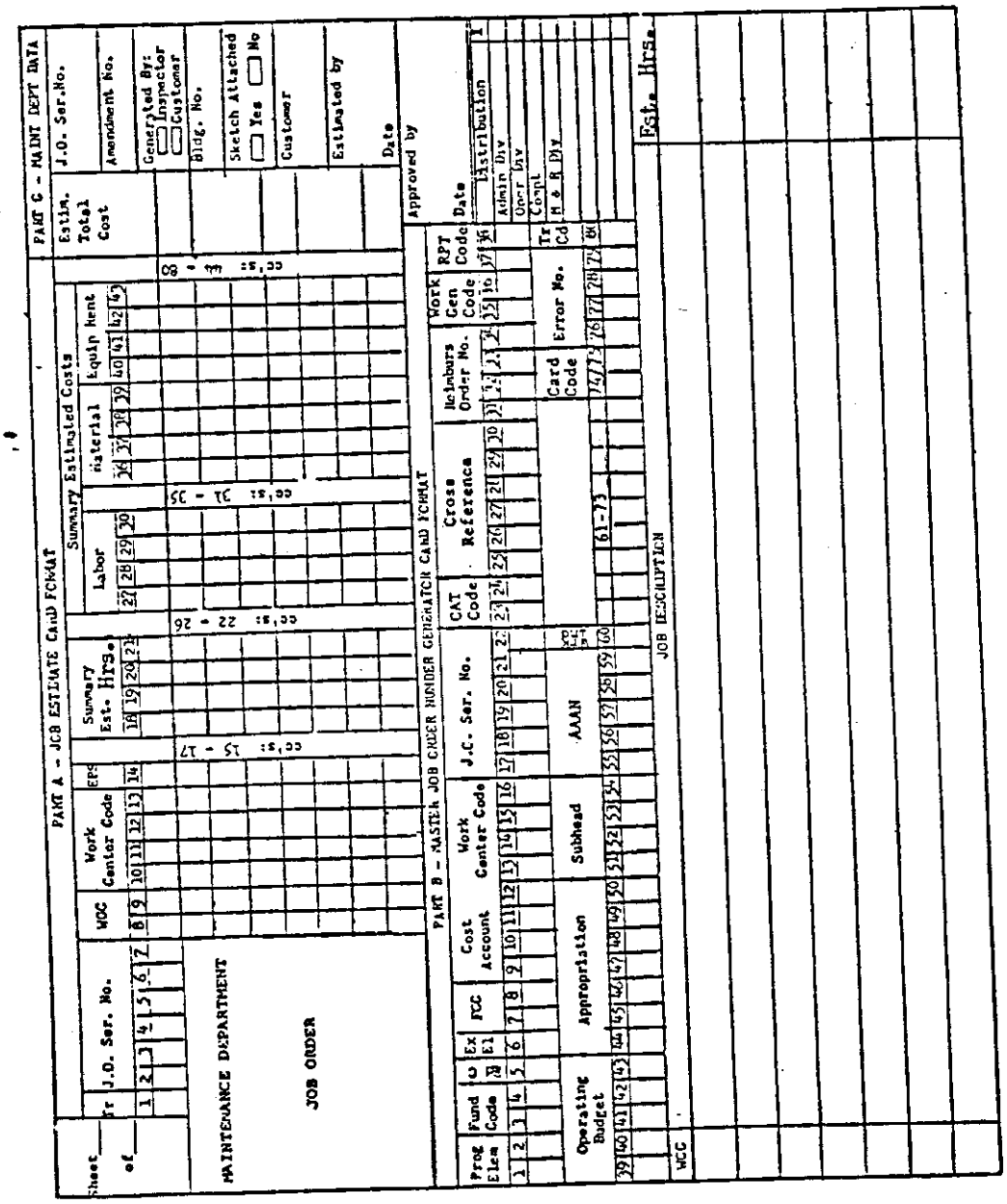
APPENDIX B6: JOB ORDER FORMAT AND INSTRUCTIONS FOR PREPARATION

APPENDIX B6: JOB ORDER FORMAT AND INSTRUCTIONS FOR PREPARATION THEREOF



Instructions for Preparing the Maintenance Organization Job Order

1. Text Reference. See chapter 4, paragraph 4300.

2. Format

a. The recommended job order format combines written job instructions and accounting data into replica ADP card formats to lessen preliminary keypunch preparation procedures for accumulating maintenance data.

b. Definitions of the card fields and detailed mechanized preparation instructions are provided in the current edition of MCO P7300.10. For layout purposes, card columns (CC's) 15-17, 22-26, 31-35, and 44-80 were omitted from the simulated job estimate card format; and CC's 71-75 were omitted from the master job order number (MJON) generator card format.

3. ADP Procedure. As many separate job estimate cards will be keypunched by the ADP staff as the number of WCC1s shown in CC's 12-13. Similarly, a separate MJON card will be keypunched repeating those WCC's in CC's 15-16. Moreover, work generator (labor class) codes shown in CC's 8-9 of the job estimate card will be repeated in CC's 37-38 of the MJON card.

4. Planner/Estimator Preparation

a. Part A, Job Estimate Card Format. Record as follows:

(1) TR C (CC 1). Numeric Transaction Code "O" for a new job order serial number or "1" for any subsequent amendment.

(2) J.O. Ser. No. (CC's 2-7). Leave blank. (Not known until approved.)

(3) WGC (CC's 8-9). The appropriate work generator code described in chapter 4, paragraph 4400.2.

(4) Work Center Code (CC's 12-13). The appropriate WCC shown for the job line items described in paragraph 4b, following. (Do not repeat WCC's.)

(5) EPS (CC 14). The numeric code "1" indicating the hours were estimated by applying EPS; or "O" indicating not EPS-estimated.

(6) Summary Est. Hrs. (CC's 18-21). The sum of the number of estimated hours for all the job line items shown for one work center as lifted in paragraph 4b, following.

(7) Summary Estimated Costs

(a) Labor (CC's 27-30). The estimated cost for the hours shown in CC's 18-21.

(b) Material (CC's 36-39). The estimated cost of material used by each work center in accomplishing the job. (Exclude equipment rental.)

(c) Equip. Rental (CC's 40-43). The estimated total hourly rental costs (see MCO P7300.8) chargeable to WCC 73 for motor transport usage and chargeable to WCC 72 for construction equipment usage. (See chapter 4, paragraph 4040.2e.)

b. Part C, Maint Dept Data. Record as follows:

(1) Estim. Total Cost. The sum of the costs of hours, material, and equipment rental by WCC line item.

(2) J.O. Ser. No. Leave blank.

(3) Amendment No. The sequential number of the last amendment to the job order serial number (i.e., "3," if two have been issued).

(4) Generated By. "X" for inspector or customer, as applicable.

(5) Bldg. No. The official number of designation of the facility as listed in the long-range maintenance plan.

(6) Sketch Attached. "X" if sketch is attached to the job order.

(7) Customer. The name of the authorized organization or individual requesting the work to be performed on a reimbursable basis.

(8) Estimated By and Date. Signature of the estimator and the date signed.

(9) Approved By and Date. Signature of the facilities maintenance officer or delegated representative thereof authorized to approve the job order.

(10) Distribution. "X" to designate the listed offices to receive a copy of the job order. Blank spaces are provided for additional offices.

(11) WCC. The work center code to perform the work.

(12) Job Description. Brief title (e.g., repair parking lot for Bldg. 24) and specifics in sufficient detail to instruct the work centers for job accomplishment. If a job order continuation sheet is used, summarize the job.

(13) Est. Hrs. The number of hours estimated for each cost center to accomplish the job.

5. Administrative Division Preparation. When the job order has been approved, the administrative division staff shall record the serial number in parts A through C of the format and shall manually record only the minimum accounting data on the MJON rard format (part B). The remaining MJON required data will be machine-prepared.

## APPENDIX B7: JOB ORDER CONTINUATION SHEET AND INSTRUCTIONS FOR PREPARATION THEREOF

JOB ORDER CONTINUATION SHEET J.O. Ser. No. _____

| Brief Job Title: | Desired Starting Date: | Sum. Wkly. Hrs. Sked. Tent. ☐ Final ☐ |
|---|---|---|
| WCC | Job Description | Est Hrs. |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | Weekly/Cumulative |

Instructions for Preparing the Job Order Continuation Sheet

1. Text Reference. See chapter 4, paragraph 4300.

2. Format. The suggested format is designed to combine written job instructions with preliminary work-scheduling guidance to facilitate master and work center scheduling.

3. Preparation. The job order continuation sheet shall be prepared as follows:

a. J.O. Ser.No. See the preparation instructions for appendix B6.

b. Brief Job Title. See the preparation instructions for appendix B6.

c. Desired Starting Date. When the facilities maintenance officer or delegated representative thereof approves the job order, that individual may indicate a preferred beginning date for the job.

d. WCC, Job Description Est. Hrs. See the instructions for identical headings provided for appendix B6 to record additional data.

e. Sum. Wkly. Hrs Sked. Tent., Final. The master scheduler shall record an "X" in the block headed "Tent.," when the starting date of the job is flexible; and, in the block headed "Final," when the starting date is approximate or known. A final schedule is relatively firm but may be revised to accommodate new priorities or conditions. The master scheduler shall:

(1) Weekly Columns. Head as many columns with the beginning dates of weeks (e.g., 7/6, 7/13, etc.) as the number deemed necessary to accomplish the job. Use an additional continuation sheet if more than four weekly columns are needed. Under the appropriate column and on the same line on which the work center code first is shown, record the sum of all estimated hours entered for the same work center that can be accomplished during that week.

(2) Weekly/Cumulative. Record the sum of the entries (e.g., 78, 62, etc.) for each week in the upper half of the block and the cumulative total (e.g., 78f 142, etc.) of the weekly totals in the lower half.

APPENDIX B8: MAINTENANCE TROUBLE/SERVICE TICKET

**MAINTENANCE TROUBLE/SERVICE TICKET** No. 49754

| BUILDING OR FACILITY | JOB ORDER NO. | DATE RECEIVED |
|---|---|---|
| REPORTED BY | | PHONE NO. |

| | | | | |
|---|---|---|---|---|
| ☐ REPAIR | ☐ COMMODE | ☐ LIGHT/LIGHT FIXTURE | ☐ 3RD DECK | ☐ NORTH WING |
| ☐ REPLACE | ☐ URINAL | ☐ SWITCH | ☐ 2ND DECK | ☐ SOUTH WING |
| ☐ UN-STOP | ☐ SINK | ☐ OUTLET | ☐ 1ST DECK | ☐ EAST WING |
| ☐ LEAKING | ☐ DRAIN | ☐ HEAT/AIR CONDITIONING | ☐ BASEMENT | ☐ WEST WING |
| ☐ RUNNING | ☐ FAUCET | ☐ DOOR/DOOR LOCK | | |
| ☐ INSUFF. | ☐ HOT WATER | ☐ WINDOW/WINDOW GLASS | | |

OTHER

WORK DONE (IF DIFFERENT)

| WORK CENTER | MAN-HOURS | LABOR COST | MATERIAL COST | TOTAL COST | WORKMAN'S INITIAL | SUPERVISOR'S INITIAL |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

| WORK STARTED (DATE & TIME) | WORK COMPLETED (DATE & TIME) |
|---|---|
| | |



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## APPENDIX B9: WORK CENTER MASTER/DAY SCHEDULES AND INSTRUCTIONS FOR PREPARATION THEREOF

**WORK CENTER MASTER/DAY SCHEDULES**

Week of ____________

Workdays ____________

Date Prepared ________

Sheet___of___

**SECTION I: HOUR SUMMARY**

| PART A: LINE ITEM DATA | PART B: MASTER WEEKLY SCHEDULE HOURS | Total | PART C: WC DAILY SKED, WCC__ Workdays/Hours M | T | W | Th | F | Total |
|---|---|---|---|---|---|---|---|---|
| Work Center Codes | | | | | | | | |
| Total: Payroll Strength | | | | | | | | |
| Number Hours/Week | | | | | | | | |
| Less: Overhead (Leave) | | | | | | | | |
| Overhead (Supervision and Other) | | | | | | | | |
| Standing J.O.'s (03 & 04) | | | | | | | | |
| Service Work (02) | | | | | | | | |
| Scheduled Specific J.O.'s | | | | | | | | |
| Minor Work (Nonscheduled) | | | | | | | | |

**SECTION II: SCHEDULED J.O.'s**

| J.O. Ser. No. | Brief Job Title | Begin. / Comp. | HOURS | Total Job | This Week | To Date | Sked./Actual Hours |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | Subtotal: Scheduled J.O.'s | | | | | | |

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WORK CENTER MASTER/DAY SCHEDULES CONTINUATION SHEET

Week of _____

Workdays _____

Date Prepared _____

Sheet___of___

SECTION III: MINOR WORK AVAILABLE FOR WC SCHEDULING

| PART A: LINE ITEM DATA | | | PART B: MASTER WEEKLY SCHEDULE | | | | | | | | | | | | | | | PART C: WC DAILY SKED. WCC | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | HOURS | | | | | | | | | | | | Total Hours | | | Sked./Actual Hours | | | | | |
| J.O. Ser. No. | Brief Job Title | Begin. / Comp. | | | | | | | | | | | | | Total Job | This Week | To Date | M | T | W | Th | F | Total |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
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| | Subtotal: Minor Work Available | | | | | | | | | | | | | | | | | | | | | | |
| | Total: All Specifics Available | | | | | | | | | | | | | | | | | | | | | | |

## Instructions for Preparing the Work Center Master/Day Schedules

1. Text References

a. For the master schedule see chapter 4, paragraph 4500.2.

b. For the day schedule, see chapter 4, paragraph 4600.1.

2. Formats. The suggested formats of the work center master/day schedules and the continuation sheets serve to distribute workloads to work centers according to available hours. Sheet number 1, part A, section 1, hour summary line items and WCC's of the maintenance and repair division, may be preprinted.

3. Headings. The master job scheduler shall record the following:

a. Week of. The beginning and ending dates of the week, month, and year identifying the week covered by the schedule.

b. Workdays. The number of workdays (exclude holidays) in the week.

c. Date Prepared. Self-explantory.

d. Sheet _____ of _____ . The sequential number of the prepared sheet of the total number of sheets prepared for the week.

4. Part A, Line Item Data; and Part B, Master Weekly Schedule. The master schedular shall record the following in part B:

a. Work Center Codes. Head the column the applicable WCC's. Exclude basic codes 30, 40p 50, etc., and operation codes in the 80 and 90 series. (See chapter 2, paragraph 2203.)

b. Section 1, Hour Summary

(1) Total

(a) Payroll Strength. The total number of personnel in each work center. (Not applicable to part C, Daily Schedule.)

(b) Number Hours/Week. The total number of hours each work center derived arithmetically by: number of personnel/WCC X number of workdays X number of hours/day.

(2) Less Overhead (Leave). The number of hours for known approved leave.

(3) Less Overhead (Supervisor and Other). The number of hours devoted to work center supervision, toolroom attendance, shop

cleanup related directly to an individual job order, and participation in unrelated campaigns or programs.

(4) Less Standing J.O.'s (03 and 04). The number of estimated hours planned for jobs covered by standing job orders. For emergency and service work, include an anticipated number of hours based on historical experience.

(5) Service Work (02). The number of remaining by subtracting the foregoing three items from the total number.

(6) Scheduled Specific J.O.'s. The number of hours to be master-scheduled. (Normally represents 75 percent of the entries recorded for the preceding line. See the cutoff described in chapter 4, paragraph 4501.2.)

(7) Minor Work (Nonscheduled). The number of hours remaining by subtracting the number of hours for scheduled specific job orders from those shown on the preceding line.

(8) Total. The total number of employees and the number of hours recorded for each line item.

c. Section II, Scheduled J.O's. The master scheduler shall record the following:

(1) J.O. Ser. No. List each specific job order meeting the scheduling criteria set forth in chapter 4, paragraph 4501.2 and each specific job order that involves more than two work centers or requires material having more than a 4-week leadtime.

(2) Brief Job Title. Briefly identify the work (e.g., "Paint Bldg. 236") for each scheduled job.

(3) Begin./Comp. For each scheduled job, enter the estimated beginning date in the upper half of the block and the estimated completion date in the lower half of the block.

(4) Hours. Under each WCC in part B, record the sum of the number of hours scheduled for the week.

(5) Total Job. Record the total estimated number of hours for all work centers shown on the job order.

(6) This Week. Record the sum of the number of hours scheduled for each work center for the week.

(7) To Date. Record the total cumulated number of hours for all work centers scheduled for the job to date.

d. Section III, Minor Work Available for WC Scheduling. The master scheduler shall list each specific job order not meeting the scheduling criteria stated in paragraph 4c(I), preceding. The instructions provided for scheduled jobs apply, with the exception of beginning and completion dates which need not be recorded.

5. Part C, WC Daily Sked

a. WCC. The master scheduler shall enter the code number for the work center that will prepare the daily schedule.

b. Section I, Hour Summary. The shop supervisor shall record the following hours by workdays:

(1) "M" Through "F." With the exception of the line item data headed "Payroll Strength," show the daily scheduling of the weekly hours recorded under the applicable WCC in part B.

(2) Total. Record the sum of the hours recorded in each daily column.

c. Section II, Sked./Actual Hours

(1) "M" Through "F." Record the daily schedule for the number of weekly hours in the upper half of the block and the actual number in the lower half of the block.

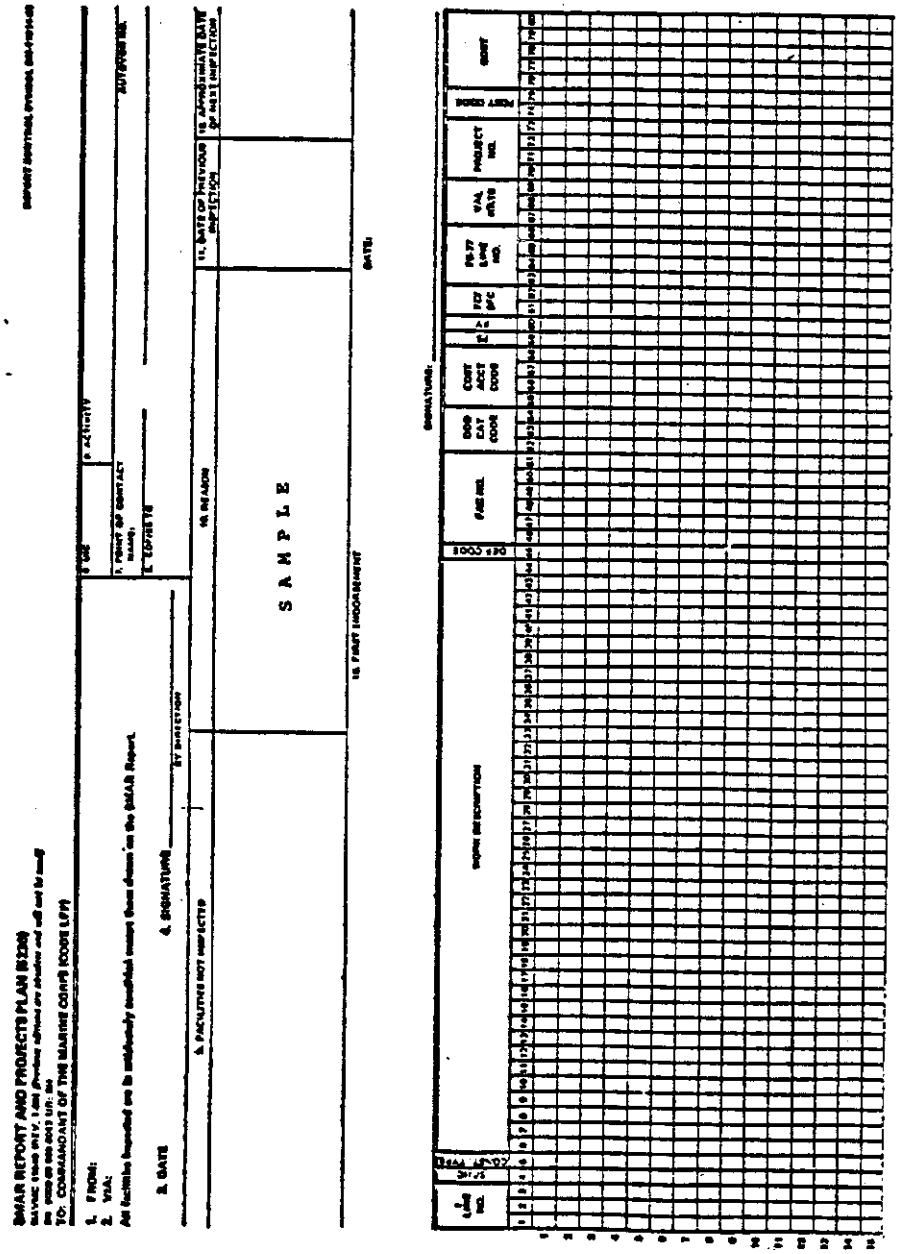
(2) Total. Record the sum of the scheduled hours shown in the daily columns. At the end of the week, enter the sum of the actual hours posted daily.

# APPENPIX C

## REPORTS

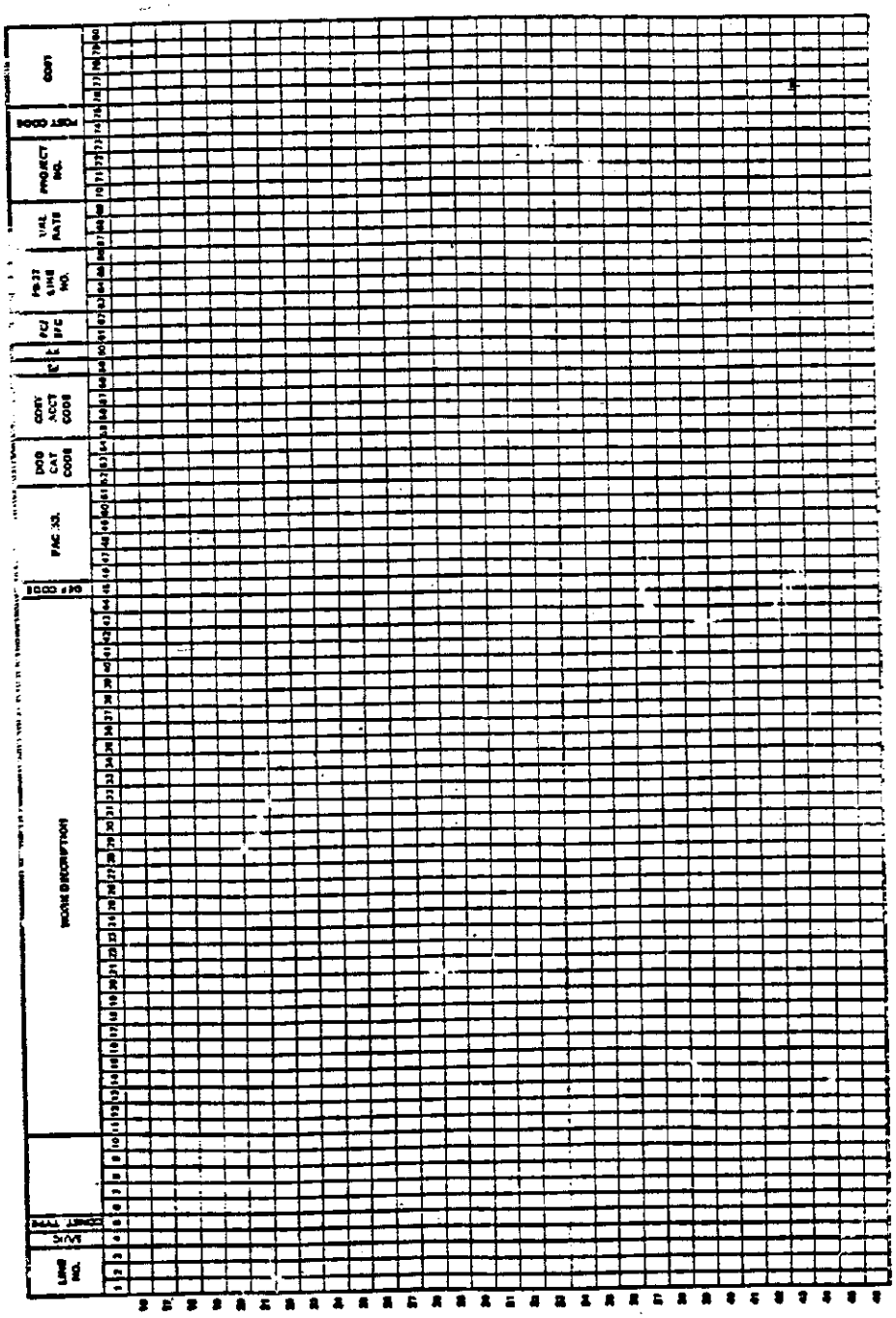

| Appendix | Title | Page |
|---|---|---|
| C1 | BMAR Report and Projects Plan and Instructions for Completion Thereof (Report Symbol DN-11014-14) | C-3 |
| C3 | Facilities Maintenance Management Report No. 1--Estimate and Performance Analysis, and Description Thereof | C-15 |
| C4 | Facilities Maintenance Management Report No. 2--Labor Analysis, and Description Thereof | C-19 |
| C5 | Facilities Maintenance Management Report No. 3--Completed Specific Job Orders, and Description Thereof | C-21 |
| C6 | Facilities Maintenance Management Report No. 4--Standing Job Order Status, and Description Thereof | C-25 |

APPENDIX C1: BMAR REPORT AND PROJECTS PLAN AND
INSTRUCTIONS FOR COMPLETION THEREOF
(REPORT SYMBOL DN-11014-14)






C-3


LINE NO.
SV/S
COMMT TYPE
WORK DESCRIPTION
OCC CODE
FAC NO.
DOD CAT CODE
CONV ACCT CODE
P/C B/C
FS-37 LINE NO.
VAL RATE
PROJECT NO.
POST CODE
CODE

Instructions for Preparing the BMAR Report and Projects Plan

(Report Svmbol DN 11014-01)

1. Text Reference. See chapter 5, paragraph 5200.

2. Format. Form NAVMC 11040 (BMAR Report and Projects Plan). (See page C-3.)

3. Preparation

a. Form NAVMC 11040 (BMAR Report and Projects Plan). This form eliminates the need for a forwarding letter and combines the transmittal letter with the actual summary. This form is only required to be submitted for reporting M-2 BMAR. If an activity has more than 46 line items, subsequent sheets must be submitted. However, the heading portion of the subsequent sheets does not have to be filled in. The "Facilities Not Inspected" and "Reasons" portions of subsequent sheets may be used if the additional space is needed. Instructions for completing the form are as follows:

(1) Item 1, From. Abbreviated title of the activity.

(2) Item 2, Via. Chain of command when the report is prepared by the subordinate activity.

(3) Item 3, Date. Date signed.

(4) Item 4, Signature. Self-explanatory.

(5) Item 5, UIC. Five-digit unit identification code identifying the activity reported on. Should be compatible with item 6.

(6) Item 6, Activity. Name of the subordinate activity when the report is prepared by the parent activity.

(7) Item 7, Point of Contact. Includes the name of the person who prepared the report and the DSN number that person can be reached on. Henderson Hall and 8th and I need only supply a local number.

(8) Items 8 Through 12. Self-explanatory.

(9) Item 13, First Endorsement. The first endorsement shall be completed by the present command when the report is prepared by a subordinate activity. Only major activities shall

utilize this block to annotate a validation statement to be signed by the facilities maintenance officer and dated. The statement shall read as follows:

> "The undersigned confirms that the items reported on the BMAR Report are valid items of maintenance and repair work which remain as firm requirements of the activity's annual plan prescribed by MCO P11000.7 but which lack of resources prohibited accomplishment during the fiscal year.

b. BMAR Report and Projects Plans. Instructions for completing the heading blocks for O&MMC are as follows:

(1) Line No., CC's 1-3. For local use.

(2) S/UIC1 CC 4. Leave blank. This field (subunit identification code) will be filled in by Headquarters Marine Corps.

(3) Const. Tvpe, CC 5. This field must be a "P," "S," or "T" (P--permanent, S--semipermanent, and T--temporary).

(4) Work Description, CC's 6-44. This field accepts alpha/numeric characters and is used to describe the work required on each of the projects. Abbreviations can and should be used to describe the large projects. The abbreviation should be descriptive and of common usage (i.e., RPL for the word replace, RPR for the word repair). If more than one building is included in a project, list the number of buildings instead of all the building numbers. Example: Replace windows and doors in Buildings 221, 412, 321, 600, and 721, can read, "replace windows and doors in 5 buildings." A space should be left between each word. The description must be confined to the 34 spaces allowed in this field. A second line cannot be used as a continuation for a previous line item.

(5) Def Code, CC 45. This field (deficiency code) must contain a "(1)," "(2)," or "(3)"? and it must be compatible with CC's 61-62 (i.e., if this field is (1), CC s 61-62 must have M1 in them; if this field is (2), CC's 61-62 must have M2 in them; if this field is (3), CC's 61-62 can be M1 or M2). The definitions for these codes are found in paragraph 5020 of this Manual.

(6) Fac Number, CC's 46-51. This field (facility number) will accept alpha/numeric characters and is used for identifying the building number of the project. If more than one building is included in a line item, this field may be left blank. The first building number of the list could be used to identify that group of buildings.

(7) DoD Cat Code, CC's 52-54. This field (DoD category code) must be three digits and numeric. It describes the category

of the facility as outlined in NAVFAC P-72. If multiple buildings are included in one project, they must be in the same category. This field must be compatible with the cost account code (CC's 55-58) and the PB-27 line number (CC's 63-66). Table A sets forth the compatibility for all category codes.

(8) Cost Acct Code, CC's 55-58. Leave blank.

(9) PS, CC 59. Leave blank.

(10) FY, CC 60. This field (fiscal year) is a single digit numeric field which identifies the fiscal year of the requirement. For example, the items on the end FY79 BMAR report would have a "9" in CC 60; the Projects Plan for FY80 would have a "0" in CC 60; the Projects Plan for FY81 would have a "1" in CC 60.

(11) FC/SFC, CC's 61-62. This field (function/subfunction code) must be a two-character alpha numeric code which describes the functional area as set forth in the NavCompt Manual, paragraph 024601. Authorized codes for this field are M1 and M2. These codes must be compatible with the deficiency code in CC 45.

(12) PB-27 Line No., CC's 63-66. Leave blank.

(13) Val Rate, CC's 67-69. Leave blank. This field (validated rating) is assigned by a Headquarters Marine Corps projects officer at the time of the onsite inspection.

(14) Proiect No., CC's 70-73. This number is assigned by the activity after validation. Leave blank for projects not previously validated.

(15) Post Coded CC's 74-75. Leave blank. This code is assigned by Headquarters Marine Corps.

(16) Cost, CC's ?6-80. This field must be numeric, rounded to the nearest $1,000, and right-justified. Unused spaces to the left of the cost should be zero-filled. For example, a cost of $18,449 should be coded as 00018. (Notice that dollar signs and decimal points are not used.) This figure will print on the automated listing as 18, representing $18,000. If the cost had been $18,550, it would be coded 00019 (rounding up to the nearest $1,000). The minimum cost is 00001 ($1,000), and the maximum is 99999 ($99,999,999). The cost shown must reflect the cost shown in block 8 of the most recent DD Form 1391 on file. If the cost varies by more than 10 percent from the 1391, a revised DD Form 1391 must be submitted for approval.

Table A.--Compatibility Table.

| Category Code | Cost Account Code | PB-27 Line No. |
|---|---|---|
| 111 | 7320, 7330 | 1B3B |
| 112 | 7330 | 1B3B |
| 113 | 7330 | 1B3B |
| 116 | 7330 | 1B3B |
| 121 | 7550 | 1B2B |
| 122 | 75U0 | 1B2B |
| 123 | 7520 | 1B2B |
| 124 | 75A0 | 1B2B |
| 125 | 75A0 | 1B2B |
| 126 | 7520 | 1B2B |
| 131 | 71K0 | 1B1I |
| 132 | 7530, 75M0 | 1B1I |
| 133 | 71T0 | 1B1I |
| 134 | 75T0 | 1B2B |
| 135 | 7540 | 1B2B |
| 136 | 7550 | 1B2B |
| 137 | 71M0 | 1B2B |
| 141 | 71L0 | 1B2B |
| 142 | 71M0, 75W0 | 1B2B |
| 143 | 71M0 | 1B2B |
| 149 | 7560 | 1B2B |
| 151 | 7220 | 1B2A |

Table A.--Coinpatibility Table.--Continued.

| Category Code | Cost Account Code | PB-27 Line No. |
|---|---|---|
| 151 | 7220 | 1B2A |
| 152 | 7210 | 1B2A |
| 153 | 7260 | 1B2A |
| 154 | 7230 | 1B2A |
| 155 | 7260 | 1B2A |
| 159 | 7260 | 1B2A |
| 161 | 7270 | 1B2A |
| 162 | 7270 | 1B2A |
| 163 | 7270 | 1B2A |
| 164 | 7270 | 1B2A |
| 165 | 7240 | 1B2A |
| 169 | 7270 | 1B2A |
| 171 | 7110 | 1B1A |
| 179 | 7570 | 1B2B |
| 211 | 71U0, 71V0, 75V0 | 1B1B |
| 212 | 7120, 75X0 | 1B2B |
| 213 | 71V0 | 1B2B |
| 214 | 7120, 75X0 | 1B2B |
| 215 | 7120 | 1B2B |
| 216 | 7120 | 1B2B |
| 217 | 7120, 75X0 | 1B2B |
| 218 | 7120 | 1B2B |
| 219 | 7120 | 1B2B |

Table A.--Compatibility Table--Continued.

| Category Code | Cost Account Code | PB-27 Line No. |
|---|---|---|
| 221 | 71U0 | 1B2B |
| 310 | 7130 | 1B1C |
| 390 | 7580 | 1B2B |
| 411 | 75A0 | 1B2B |
| 412 | 75A0 | 1B2B |
| 421 | 71N0 | 1B1I |
| 423 | 75B0 | 1B2B |
| 424 | 75R0 | 1B2B |
| 425 | 75R0 | 1B2B |
| 431 | 71P0 | 1B2B |
| 441 | 7140 | 1B1D |
| 451 | 7340 | 1B3C |
| 510 | 7150 | 1B1E |
| 530 | 7150 | 1B1E |
| 540 | 7150 | 1B1E |
| 550 | 7150 | 1B1E |
| 610 | 7160 | 1B1F |
| 620 | 71R0 | 1B1I |
| 690 | 75D0 | 1B2B |
| 721 | 7170 | 1B1G |
| 722 | 7180 | 1B1G |
| 723 | 7190, 75E0 | 1B1G |

Table A. --Compatibility Table--Continued.

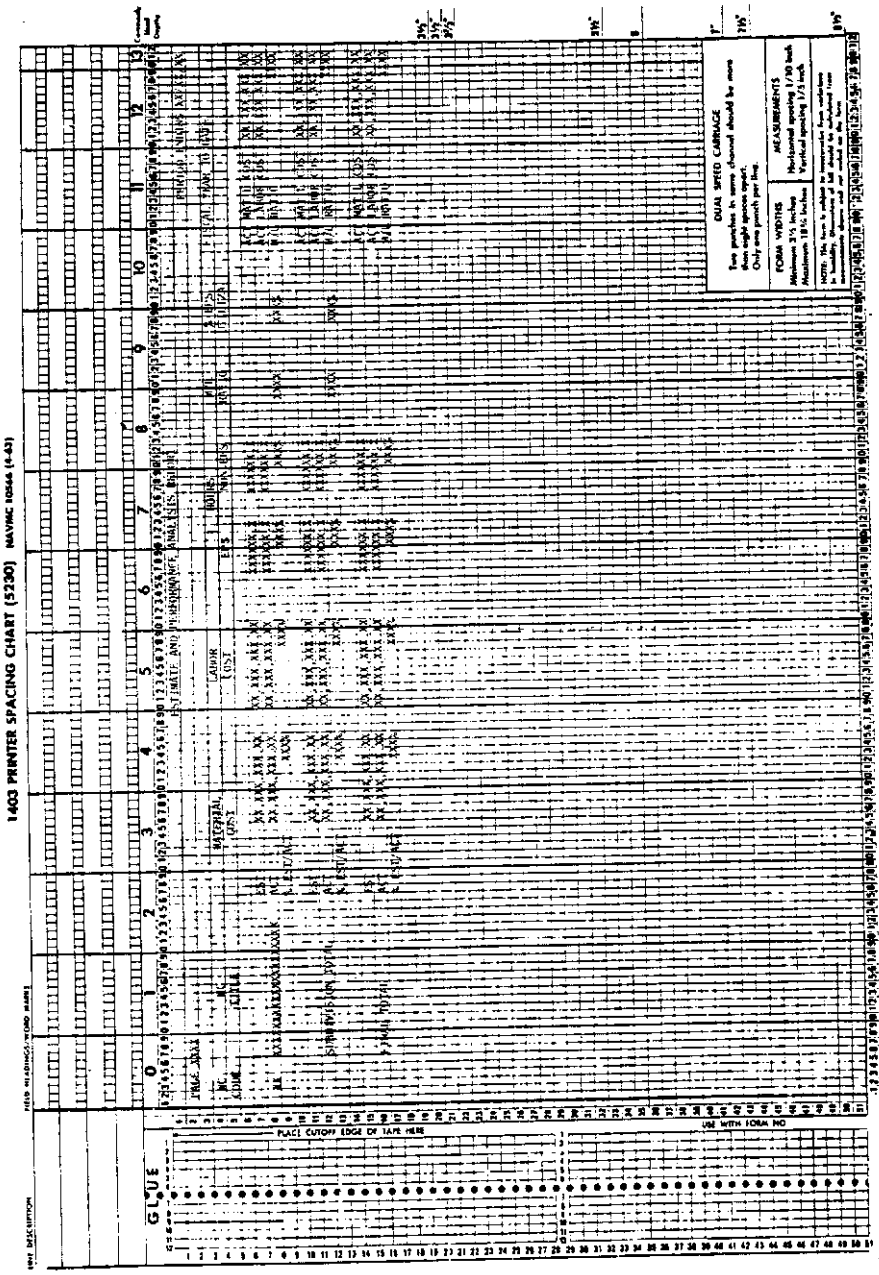
| Category Code | Cost Account Code | PB-27 Line No. |
|---|---|---|
| 724 | 7IA0 | 1B1G |
| 725 | 71S0 | 1B1I |
| 730 | 71J0 | 1B1H |
| 740 | 71J0 | 1B1H |
| 750 | 75G0 | 1B2B |
| 760 | 75G0 | 1B2B |
| 811 | 7610 | 1A1A |
| 812 | 7710 | 1A1B |
| 813 | 7710 | 1A1B |
| 821 | 7640, 7630 | 1A2A |
| 822 | 7720 | 1A2C |
| 823 | 7680 | 1A60 |
| 824 | 7770 | 1A60 |
| 826 | 76G0, 76A0 | 1A5A, 1A5B |
| 827 | 76G0, 76A0 | 1A1B |
| 831 | 7670 | 1A40 |
| 832 | 7760 | 1A40 |
| 833 | 75H0 | 1B2B |
| 841 | 7650, 7660, 76H0, 76F0 | 1A30 |
| 842 | 7730, 7740 | 1A30 |
| 843 | 7750, 7780, 76J0 | 1A30 |
| 844 | 7610, 76J0 | 1A30 |

Table A.--Compatibility.Table--Continued.

| Category Code | Cost Account Code | PB-27 Line No. |
|---|---|---|
| 845 | 7750, 7780 | 1A30 |
| 851 | 7310 | 1B3A |
| 852 | 7350 | 1B3C |
| 860 | 7510 | 1B50 |
| 871 | 7450 | 1B4A |
| 872 | 75L0 | 1B2B |
| 880 | 7790 | 1A60 |
| 890 | 76E0, 7630 | 1A60 |
| 911 | 7410 | 1B4A |
| 921 | 7410 | 1B4A |

APPENDIX C3: FACILITIES MAINTENANCE MANAGEMENT REPORT NO. 1--ESTIMATE AND PERFORMANCE ANALYSIS, AND DESCRIPTION THEREOF

APPENDIX C3: FACILITIES MAINTENANCE MANAGEMENT REPORT NO. 1--ESTIMATE AND PERFORMANCE ANALYSIS, AND DESCRIPTION THEREOF






C-19

## Description of Facilities Maintenance Management

## Report No. 1--Estimate and Performance Analysis

1. Text Reference. See chapter 5, paragraph 5300.2.

2. Purpose. To provide a monthly summary (by work center) of estimated and actual productive labor hours and costs of labor, material and equipment spent of specific job orders completed during the month; to update year-to-date summary information on labor and material costs and the material/labor ratio; and to identify a percent of EPS utilization.

3. Objectives

a. To provide management with indicators on the overall performance of the planners and estimators and work centers on completed specific job orders.

b. To provide management with comparative cost and man-hour information for planning, programming and budgeting purposes.

4. Source Documents

a. Closed specific job orders.

b. Labor distribution cards.

c. Material issue vouchers.

d. Construction equipment and motor vehicle utilization records.

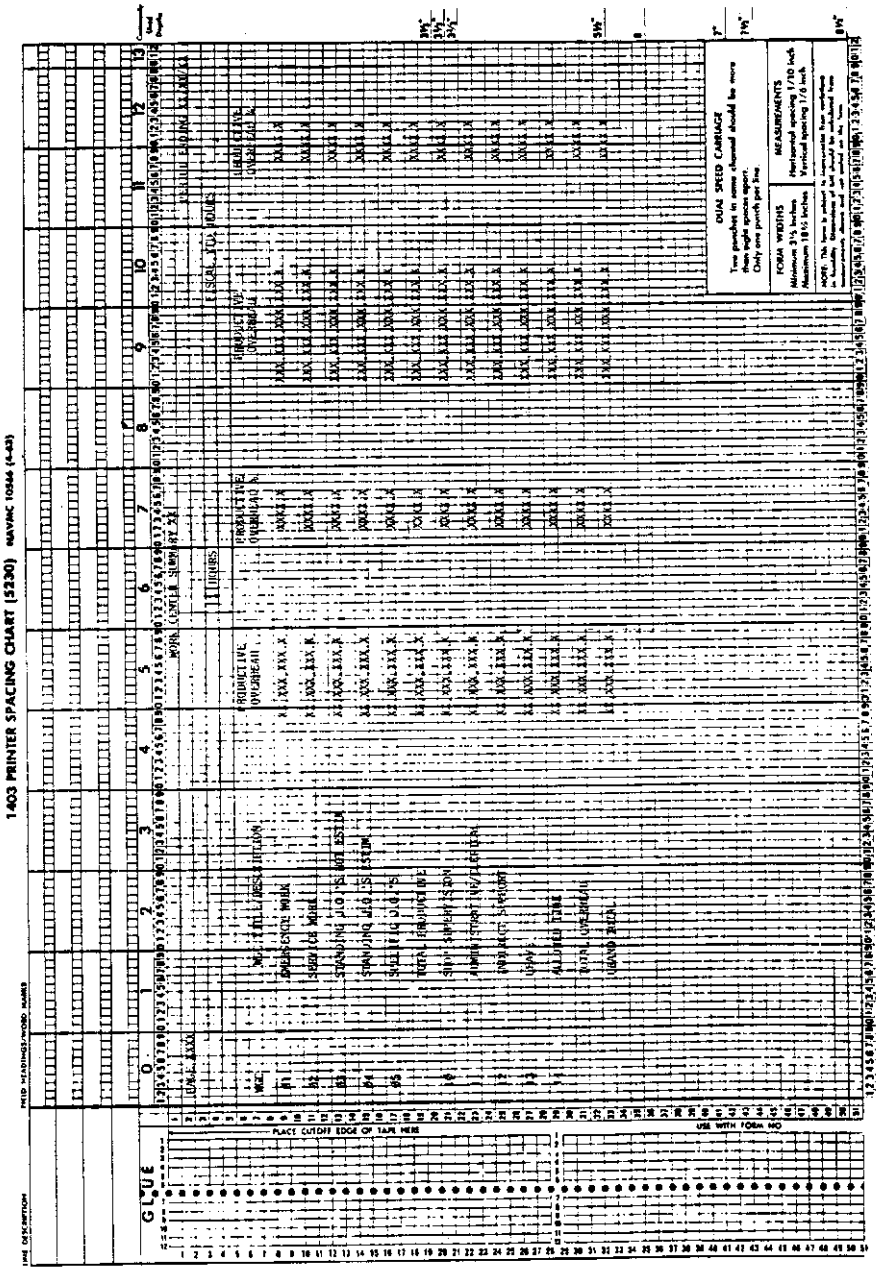
5. Description. Line items headed "EST," "ACT," and "% EST/ACT" apply to material cost, labor cost, and hours. The line items headed "SUBDIVISION TOTAL" represent sums of data by basic work center codes (30, 40, 50, etc.), and the line item headed "FINAL TOTAL" represents the sum of all the subtotals. The percentage entries are derived by dividing the estimated by the actual data and multiplying the quotient by 100. Heading descriptions are:

| Heading | Columnar Interpretation |
|---|---|
| WC CODE | Codes on specific job orders and labor distribution cards identifying the work centers involved. |
| WC TITLE | The title of the work center involved. |

| Heading | Columnar Interpretation |
|---|---|
| MATERIAL COST | Estimated and actual costs of material required to accomplish the work authorized by specific job orders. Rental costs of administrative vehicles and construction equipment charged to WCC's 72 and 73 are shown in the estimated and actual material columns, and the operator's time is shown in the non-EPS hours and labor cost columns only. |
| LABOR COST | Total cost of labor performed by each work center for closed specific job orders. The entries are derived by multiplying the number of hours by the hourly rate recorded on each employee's labor distribution card and multiplying the result by the current labor acceleration rate. |
| HOURS EPS | The number of hours estimated by applying EPS as obtained from closed specific job orders and the number of hours actually expended as identified by entries relating to closed specific job order serial number on labor distribution cards. |
| HOURS NON-EPS | The number of hours estimated by methods other than as obtained from closed specific job orders and the number of hours actually expended as identified by job order serial numbers on labor distribution cards. |
| M/L RATIO | Ratio of material to labor. The entries are derived by dividing the actual material costs by the actual labor costs. |
| % EPS | Percentage of engineered performance utilization. |
| UTILIZATION | The entries are derived by dividing the number of hours EPS-estimated by the product obtained as follows: add the number of hours EPS-estimated with the number of hours non-EPS estimated, and multiply the sum by 100. |
| FISCAL YEAR TO DATE | Cumulated actual material costs and actual labor costs for the fiscal year to date and the ratios of material to labor costs for the cumulated costs. |

APPENDIX C4: FACILITIES MAINTENANCE REPORT NO. 2--LABOR ANALYSIS, AND DESCRIPTION THEREOF

APPENDIX C4: FACILITIES MAINTENANCE MANAGEMENT REPORT NO. 2--LABOR ANALYSIS, AND DESCRIPTION THEREOF



Description of Facilities Maintenance Management

Report No. 2--Monthly Labor Analysis

1. Text Reference. See chapter 5, paragraph 5300.2.

2. Purpose. To summarize, separately, hours expended on productive and overhead work accomplished by each work center in the 30, 40, 50, 60, and 70 (less WCC 77) code series and to summarize that data collectively for all work centers.

3. Objective. To inform management on a monthly basis of the type of work on which work center personnel are being used. Through accumulated data, evaluate whether productive man-hours are maximized; overhead man-hours are minimized; and the total man-hours are within planned and programmed target ranges.

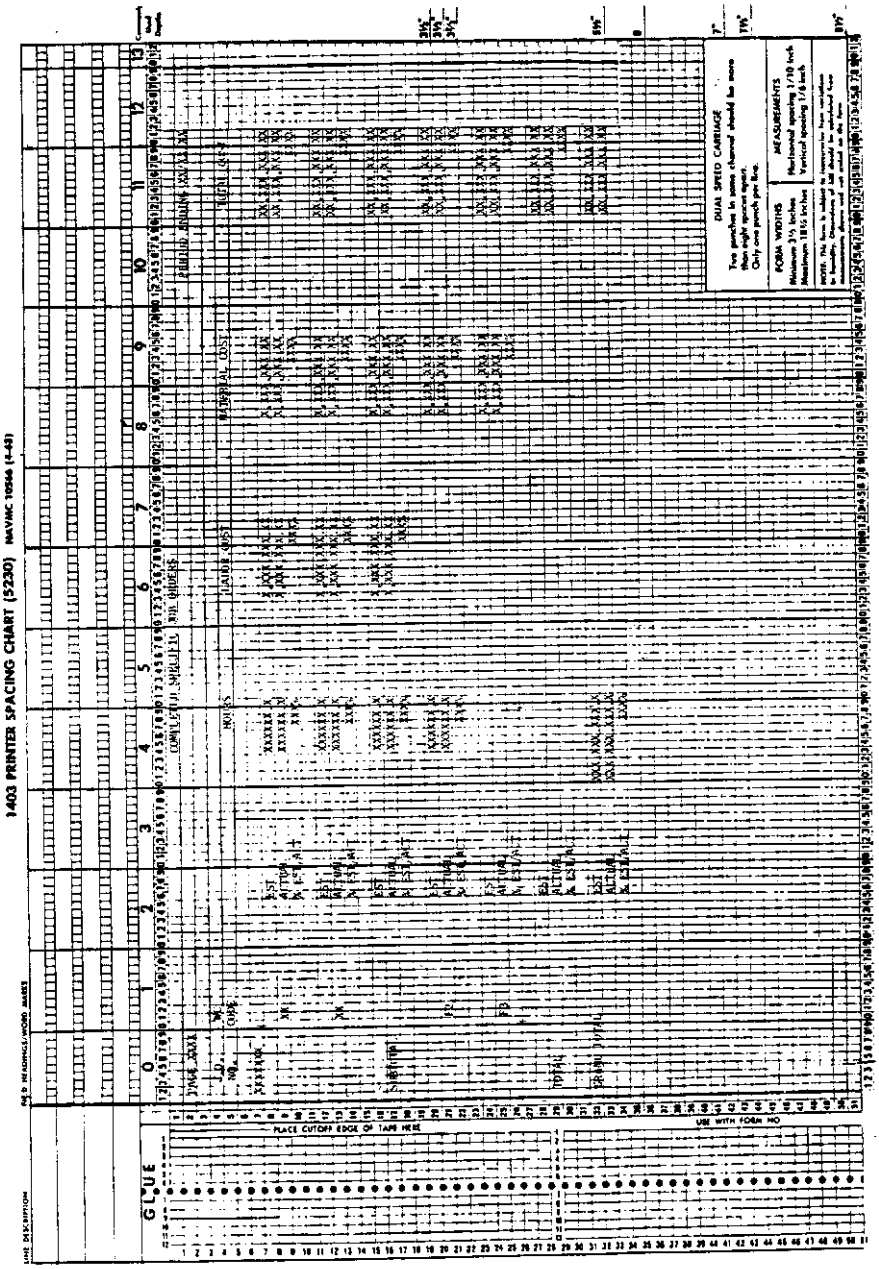
4. Source Documents. Labor distribution cards.

5. Description. The following hour data grouped and totaled by productive and overhead will be shown in separate reports for each work center and in one summary report consolidating all work centers:

| Headings | Columnar Interpretations |
|---|---|
| WGC | Work generator (labor class) codes in 01, 02, 03, 04, 05 numerical sequence to identify the type of work. |
| WGC TITLE/ DESCRIPTION | Description of the WGC. |
| HOURS PRODUCTIVE OVERHEAD | Total number of hours identified by each work generator code grouped and totaled by productive and overhead for the month covered. |
| HOURS PRODUCTIVE OVERHEAD % | The percentages of productive and overhead hours identified to each work generator code. The entries are derived by dividing the number of hours shown on each line by the grand total and multiplying the quotient by 100. |
| FISCAL YTD HOURS PRODUCTIVE OVERHEAD | Total fiscal-year-to-date cumulated hours. The entries are derived similarly to the monthly entries. |
| FISCAL YTD HOURS PRODUCTIVE OVERHEAD% | Fiscal-year-to-date percentages of cumulated hours. The entries are derived similarly to the monthly entries. |

APPENDIX C5--FACILITIES MAINTENANCE MANAGEMENT REPORT NO. 3--
COMPLETED SPECIFIC JOB ORDERS, AND DESCRIPTION THEREOF

APPENDIX C5--FACILITIES MAINTENANCE MANAGEMENT REPORT NO. 3--COMPLETED SPECIFIC
JOB ORDERS, AND DESCRIPTION THEREOF






C-25

## Description of Facilities Maintenance Management Report

### No. 3--Completed Specific Job Orders

1. Text Reference. See chapters 4 and 5, paragraphs 4306.1a, 4600.3f, 5300.2a and c, respectively.

2. Purpose. To provide summary estimated and actual data for each closed specific job order to detect the adequacy or accuracy of EPS, and to review the performance of the planners/estimators and the work centers involved in estimating and accomplishing the job. Variations in estimated versus actual labor costs may indicate a need to adjust wage rates applied by the planners/estimators.

3. Objectives

a. To provide management with data for determining variations from estimates on job phases and establish the basis for investigating such variances which are beyond limitations.

b. To identify and take actions to correct problems affecting worker productivity through a variance analysis program and concerning quantities costing and disposition of excess materials.

4. Source Documents

a. Closed specific job orders. (J.O. number, work center.)

b. Labor distribution cards. (Work center, J.O. number, labor hours, hourly rates.)

c. Material issue vouchers. ($ value of material, job order number.)

d. Construction equipment and motor vehicle utilization records. (Operator hours, hourly rates, $ value of equipment rental costs.)

5. Description. Line items headed "EST," "ACT," and "% EST/ACT" apply to hours and labor cost, material cost, and total cost. The line items headed "SUBTOTAL" represent sums of hours and costs identified by work center codes (less WCC's 72 and 73) and charged to the specific job order serial number. The line item headed "TOTAL" represents the sum-of the subtotal and the data charged to

WCC's 72 and 73. The percentage entries are derived by dividing the estimated by the actual data and multiplying the quotient by 100. Heading descriptions are:

| Headings | Columnar Interpretation |
|---|---|
| J.O. NO. | The serial number identifying the job order or task. |
| WC CODE | The codes appearing on the closed specific job order identifying the work centers involved in accomplishing the work. |
| HOURS | The estimated hours identified for each work center. Estimated hours are obtained from the applicable job order and actual hours from the labor distribution cards. The operator's time spent on administrative vehicles and construction equipment chargeable to WCC's 72 and 73 are shown in the hours and labor cost columns, and the rental costs for the equipment are shown in the material cost columns. |
| LABOR COST | The cost of labor identified to each work center involved in the job. The estimated costs are obtained from the applicable job order, and the actual costs are derived by multiplying the number of hours by the hourly rate recorded on the employee's labor distribution card and multiplying the current labor acceleration rate of 29 percent. |
| MATERIAL COST | The cost of material required by each work center involved in the job. |
| TOTAL COST | The sum of the costs for labor and material shown for each line item. |

APPENDIX C7: FACILITIES MAINTENANCE MANAGEMENT REPORT NO. 5--WORK STATUS, AND INSTRUCTIONS FOR PREPARATION THEREOF

APPENDIX C7: FACILITIES MAINTENANCE MANAGEMENT REPORT NO. 5--WORK STATUS, AND INSTRUCTIONS FOR PREPARATION THEREOF

PART I: PERIOD ENDING:

| WORK CENTER | | NUMBER OF PERSONNEL ASSIGNMENTS | | | | | | WORK AVAILABLE (SPECIFIC JOBS) SHOP DAYS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE NO. (1) | TITLE (2) | ON BOARD (3) | STANDING JO'S OVERHEAD (4) | STANDING JO'S PRODUCTIVE (5) | UNSKED WORK (6) | SKED SPECIFIC (7) | WITH MAT'L (8) | WITHOUT MAT'L (9) | PRELIMINARY ESTIMATE (10) | TOTAL (11) | HOURS TOTAL (12) |
| | | | | | | | | | | | |
| TOTALS | | | | | | | | | | | |

PART II:

1. Number of specific and minor jobs on quarterly program _____.
2. Number of minor and specific jobs completed this period from the program _____.
3. Total number of minor and specific jobs completed this period _____.



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Instructions for Preparing Facilities Maintenance Management

Report No. 5--Work Status

1. Text Reference. See chapter 5, paragraph 5300.3.

2. Purpose. To evaluate personnel and work data in relation to the volume of work planned and accomplished, and to gauge balanced work forces for projected workloads of quarterly work programs.

3. Frequency. Prepare part I monthly, or more frequently if desired; prepare part II quarterly.

4. Source Data

a. Personnel records.

b. Quarterly work program.

c. Report No. 4, Standing Job Order Status.

d. Report No. 1, Estimated and Performance Analysis

e. Inspection reports.

f. Work center/master/day schedules, part B.

5. Preparation

a. Part I. Record the following monthly:

(1) Column (1), Work Center Code No. Self-explanatory.

(2) Column (2), Work Center Title. Self-explanatory.

(3) Column (3), Number of Personnel Assignments on Board. Total number of military and civilian employees of each work center as of the end of the period covered by the report. Include personnel detailed for more than 30 days and those hired temporarily.

(4) Column (4), Number of Personnel Assignments, Standing JO's, Overhead. Total number of employees assigned to overhead or supervisory duties. Include supervisors, shop planners, clerks, tool crib attendants, and the anticipated number of personnel to be charged to overhead because of leave, shop cleanup, training, etc.

(5) Column (5), Number of Personnel Assignmentsr Standing JO's, Productive. Projected number of personnel to be assigned to schedule standing job orders. Report. No. 4 may provide data for this column.

(6) Column (6), Number of Personnel Assignments, Unsked Work. Projected number of personnel to be assigned to jobs which do not quality for master scheduling, including emergency, service, and minor specific work.

(7) Column (7), Number of Personnel Assignments, Sked Specific. Projected number of personnel available for work authorized by specific job orders that qualify for master scheduling. Include the number of operators of construction equipment for WCC 73. Record the remainder obtained by subtracting the sum of the entries in columns (4), (5), and (6) from the entry in column (3).

(8) Column (8), Work Available (Specific Jobs), Shop Days With Material. Number of shop days of planned and estimated specific jobs for which materials are available. Include uncompleted jobs which require more than one shop day to complete. The number of shop days is determined in accordance with the following formula:

$$\frac{\text{Hours of Work Available}}{\text{Number of Personnel Available for Specific Work X 8 Hours/Day}} = \text{Shop Days}$$

(9) Column (9), Work Available (Specific Jobs), Shop Days Without Mat'l. Number of shop days of planned and estimated work for which material is not available.

(10) Column (10), Work Available (Specific Job), Shop Days Preliminary Estimate. Number of shop days of known work for which detail plans and estimates have not been completed.

(11) Column (11), Work Available (Specific Job), Shop Days Total. The sum of the number of shop days shown in columns (8) through (10). This total should equal all uncompleted in-house work on the annual plan.

(12) Column (12), Hours Total. Total of hours of work available. (See the formula contained in paragraph 5a(8), preceding.)

b. Part II. Record the following quarterly:

(1) Item No. 1. Total number of minor and specific jobs included in the quarterly work program at the beginning of the period.

(2) Item No. 2. Total number of minor and specific jobs included in the quarterly work program that were completed during the period.

(3) Item No. 3. Total number of all minor and specific jobs (included in the quarterly work program) together with others that were completed during the period.

# >APPENDIX D

## INSTRUCTIONS FOR THE UTILIZATION AND DISPOSAL OF EXCESS MATERIALS BY FACILITIES MAINTENANCE

1. Definition. Excess FM materials are items of supply that may: be held available by the DRMO to support an FM requirement, originate from completed/canceled FM specific work orders resulting from FM inability to program labor for accomplishment, or involve residual material resulting from completed construction (MILCON, O&M, FHN&MC, etc.) projects.

2. Utilization. As discussed previously in this Manual, excess properties handled by the DRMO are available to support identified FM requirements. A listing of servicing DRMO locations is contained in the current edition of MCO 4500.11. To use DRMO assets for FM needs, the following procedures are prescribed:

a. Once a material requirement becomes known, the FMO should informally contact the activity DSSC or its counterpart at installations serviced by the NAVSUP and request access to the DRMO properties listings.

b. If a required item identified on the DRMO listing is determined to be the most efficient and effective source of supply (after considering cost, quality, and responsiveness factors) ,the FMO will cause a NAVFAC 11014/8 to be prepared and forward it to the DSSC/NAVSUP. Indicate thereon all appropriate information to include location of desired material and required demand date (with a notation as to whether substitution is authorized).

c. The DSSC/NAVSUP should prepare appropriated requisition documents or, where appropriate, authorize the FM personnel to visit the local DRMO, if such is the storage site for the material, and perform a direct pickup. In this case, conformance with appropriate regulations concerning signature/receipt cards must be followed.

3. Disposition. As described previously in this Manual, any materials held by the FM that have been determined to be excess to FM needs (PEBs, insurance items, SOS, or new BOM) should be turned into the supporting DSSC/NAVSUP activity. Whenever possible the FMO should attempt to gain credit for the value of material returned.