

Facilities Engineering

CONSTRUCTION AND FACILITIES MANAGEMENT OFFICE PROCEDURES

By Order of the Secretaries of the Army and the Air Force:

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History. This is a new publication.

Summary. This pamphlet provides guidance to the Construction and Facilities Management Officer on how to organize, operate, and execute the Real Property Operations and Maintenance program.

Applicability. This pamphlet applies to Army National Guard construction and facilities management operations, no matter the funding source or project initiator. This regulation does not directly pertain to activities associated with the execution of a military construction appropriation.

Proponent and exception authority. The proponent of this pamphlet is the Chief of Installations, National Guard Bureau, Army Installations Division, NGB-ARI. The Chief of Installations has the authority to approve exceptions to this pamphlet that are consistent with controlling law and regulation. However, this authority may not be delegated.

Suggested Improvements. Users of this pamphlet are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the National Guard Bureau, Army Installations Division, NGB-ARI, 111 South George Mason Drive, Arlington, VA 22204-1382.

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Contents

Chapter 1

General

Purpose, 1-1

References, 1-2

Explanation of Abbreviations and Terms, 1-3

Further Guidance, 1-4

Chapter 2

General Principles

Basis of Operations, 2-1

Facilities and Support Plan, 2-2

Key Principles of the Master Cooperative Agreement, 2-3

Flow of Reimbursement Actions, 2-4

Reimbursement Basics, 2-5
Reimbursement Rules, 2-6
Components of the Facilities Programs, 2-7

Chapter 3

Typical Organization

General, 3-1
Primary Planning and Programming Tasks, 3-2
Primary Design and Project Management Tasks, 3-3
Primary Facility Management Tasks, 3-4
Primary Resource Management Tasks, 3-5
Primary Contract Management Tasks, 3-6
Environmental Tasks, 3-7

Chapter 4

Work Classification

General, 4-1
Anti-Deficiency Act, 4-2
Program Descriptions, 4-3
Work Classification Applications, 4-4
Calculating Funded and Unfunded Project Costs, 4-5
Real Property Improvements, 4-6

Chapter 5

Work Classification Examples

General, 5-1
Buildings and Roads, 5-2
Grounds, 5-3
Utilities, 5-4
Asbestos, 5-5
Equipment, 5-6
Facility Replacement Value, 5-7

Chapter 6

Project Documentation

The NGB Form 420-R, 6-1
DD Forms 1390/1391, 6-2
Act of Nature (AON) Damage Projects, 6-3
Land Acquisition Projects, 6-4
Project Documentation and Approval Matrix, 6-5

Chapter 7

Contracting

General, 7-1
Federal Contracting, 7-2
State Contracting, 7-3
Contracting for Architect-Engineering Services, 7-4

Chapter 8
Federally Reimbursed State Employees

General, 8-1
Types of FP-PAS Employees, 8-2
Calculating Allowable Employees, 8-3
Basics of Administration, 8-4
Limitations on Use, 8-5
List of FP-PAS Positions, 8-6

Appendices

- A. References
- B. Project Documentation and Approval Matrix
- C. NGB Form 420-R Preparation
- D. FP-PAS Position List
- E. The NGB Uniform Standards for the Payment of Architect-Engineering Services Fee Schedule
- F. Federal A-E Selection Actions
- G. Management Control Checklist

Figure List

Figure 3.1. Construction and Facilities Management Office Organization

Glossary

Chapter 1

General

1-1. Purpose

This pamphlet provides procedures and guidance to the Construction and Facilities Management Officer (CFMO) on the management of State level public works activities. The pamphlet emphasizes the execution of the Facilities Programs (FP), especially in the areas of work classification, project documentation, and project execution.

1-2. References

Required and related publications are listed in Appendix A. Refer to the Appendix if you are not familiar with a publication cited in the basic text.

1-3. Explanation of Abbreviations and Terms

Abbreviations and special terms used in this pamphlet are explained in the glossary.

1-4. Further Guidance

Nearly all of the activities of the CFMO are governed by one of the following regulations:

- a. NGB-AQ cooperative agreement directives are the CFMO's prime reference on the receipt and use of Federal funds. It discusses all areas of authorized activities and establishes certain reporting requirements.
- b. NGR 420-10 discusses responsibilities, office organization and functions, project approval and execution, and personnel.
- c. NGR 415-5 establishes the requirements for building and executing a military construction program.
- d. NGR 415-10 establishes authorizations for Army National Guard facilities construction.

Chapter 2

General Principles

2-1. Basis of Operation

- a. The Army National Guard (ARNG) treats its real estate uniquely among the DoD components. All ARNG facilities are owned by, leased for, or licensed to the States. As a result the States, and not the Federal government, operate and maintain all ARNG facilities.
- b. In turn, this means that to support the costs of operating and maintaining these facilities, the National Guard Bureau (NGB) must transfer funds to the States through a cooperative agreement. The actual mechanism for the States to provide certain services in support of the Federal mission of the ARNG to NGB specified standards is Appendix 1 of the Master Cooperative Agreement. Details are in the agreements themselves and in NGB-AQ cooperative agreement directives.

2-2. Facilities Inventory and Support Plan (FISP)

- a. The FISP registers the real property inventory, to include the agreement support code, which dictates the level of Federal reimbursement authorized for each real property facility.
- b. Specifically, it is an electronic document to provide detailed information on all Federally/State owned, State operated, ARNG facilities within each individual State, Commonwealth, or Territory. It details information on structures, activities, locations, and lists other pertinent data required for Federal participation for support. It identifies facilities, to include those that are eligible for support with Federal funds.
- c. The rate of reimbursement to the State for all authorized charges listed in NGB-AQ cooperative agreement directives, unless expressly stated otherwise, shall be based on the FISP support code for the facility generating the expenditure.
 - (1) For example, employee, repair, supplies, equipment, utility, etc. costs directly and exclusively associated with a facility authorized 75% support shall be reimbursed to the State Military Department 75%.
 - (2) Costs that are generated for facilities authorized several different support levels shall be reimbursed at a rate that reflects the actual level of effort. For example, if the purchase of an item is intended to benefit 50,000 square feet of 100% facilities, 30,000 square feet of 75% facilities, and 20,000 square feet of no support facilities, then the rate of reimbursement to the State shall be 72.5%.
 - (3) Nothing shall preclude the State Military Department from requesting reimbursement at a rate less than what it is authorized to request.

d. The State Military Department shall not receive reimbursement for any costs for a facility unless NGB-ARI has approved or will approve that facility for support on the FISP.

e. Changes to the FISP. The CFMO shall submit all additions, changes, or deletions to the FISP to NGB-ARI for approval via the current NGB FISP software. Requests for additional land and/or already-constructed facilities will be considered only when complete justification is submitted, including appropriate references to the current Real Property Development Plan (RPDP). Requests to add new facilities shall also include documentation that the State holds fee simple interest in the property or a lease interest of at least 25 years that may not be cancelled. If the property is on Federally owned land, the State shall document that its license provides for at least a 25 year interest.

f. Annual review of the FISP. The CFMO or the Assistant United States Property and Fiscal Officer (USPFO) for Real Property is responsible to conduct a comprehensive review of the FISP annually. This review shall be certified by the CFMO and reviewed by the USPFO and forwarded to NGB-ARI not later than 30 March each year.

2-3. Key Principles of the Master Cooperative Agreement

a. Reimbursement authorized only if a facility is listed on the FISP and is authorized support.

b. State agrees to exercise its "best efforts" to operate and maintain FISP authorized facilities according to "sound commercial practices."

c. State agrees to maintain facilities to "required minimum standards."

2-4. Flow of Reimbursement Actions

a. State incurs an expense.

b. At least monthly State submits request for reimbursement through the CFMO for the CFMO to verify and recommend approval.

c. The CFMO reviews and certifies State requests for reimbursement and forwards these recommendations to the USPFO for actual payment to the State as reimbursement.

2-5. Reimbursement Basics

a. The FISP is the key.

b. The specific piece of land, the specific portion of infrastructure, or the specific building or structure (or section of building or structure) must be on the FISP and coded to receive support for the State to be able to request reimbursement.

(1) In the case of construction, the resulting new facility(ies) or facility space must be eligible for support for the State to able to request reimbursement for the construction project itself.

(2) This rule also applies to demolition projects. In the case of demolition projects that include facilities coded for no support, the State may request that NGB-ARI approve these facilities for support. The support code should be the last one under which it received support, the facility should have been constructed with Federal funds, and the facility should be vacant or not used for more than five years for non-Federal purposes.

c. The State may request reimbursement for supported facilities on the FISP for leases, utility costs, sustainment, restoration, and modernization projects, or operations and maintenance minor construction projects. Construction projects include the acquisition of land to expand the size of training centers, provided that the land acquisition has been approved in advance by NGB-ARI (or the USPFO in the case of an acquisition of less than 100 acres or \$100,000, whichever is greater).

d. Salaries, supplies, equipment, and services are fully reimbursable if they are for FISP supported facilities; or if they are in support of Appendix 1 of the Master Cooperative Agreement and if they are part of the State's responsibilities and if the sole benefit is to the State Military Department.

2-6. Reimbursement Rules

a. The FISP support code determines the maximum authorized rate of reimbursement for a particular facility. A State may always request reimbursement at a lower level.

b. NGB-AQ cooperative agreement directives list and describe all current agreement support codes as listed below. In case of conflict, NGB-AQ directives govern.

(1) 100% Federal Support.

(a) TSC – Training Centers, including authorized facilities at local training areas.

(b) TS1 - Preservation Maintenance only.

(c) TS2 – Only for the Professional Education Center (AR), the Training and Training Technology Battle Lab (NJ), the Equipment Maintenance Center CONUS (IA), the Battle Command Training Center (KS), the Mountain Warfare School (VT), and the Area Aviation Training Sites (AZ, CO, PA, and WV).

(d) TS3- NGB-ARI specifically authorized mission-sustaining MWR facilities, such as chapels, museums, and gyms, but only when specifically approved by NGB-ARI. Museums also require the approval of NGB-PAH.

(e) TS4 – For repair only of major systems and exteriors of AAFES facilities and NGB-ARI specifically authorized community support and revenue-generating MWR facilities, such as bowling centers, outdoor recreation and sports facilities, and service clubs. However, reimbursement of utilities is authorized for AAFES facilities outside of the continental United States.

(f) TS5 - State Military Educational Facilities without a multi-State mission, including Regional Training Institutes (RTIs) without a battalion or brigade flag.

(g) TS6 - Regional training site facilities with a battalion or brigade flag such as The Army School System (TASS) combat arms and leadership brigades and battalions, and Regional Training Sites Maintenance and Medical.

(h) TS7 - Ski Lift/Trails Run (MN, VT).

(i) TS8 - National Guard Marksmanship Training Center (AR)

(j) TS9 – Weapons of Mass Destruction – Civil Support Team (WMD-CST) facilities (or portions of facilities).

(k) T11 - Joint Services Interior Intrusion Detection Systems (J-SIIDS), Commercial Intrusion Detection Systems (CIDS), Closed Circuit Television (CCTV) and associated on site and off site remote monitoring and perimeter equipment provided by the State Military Department for security of authorized facilities.

(l) T17- Only for construction of distance learning classrooms at non-ARNG installations, but only when specifically approved by NGB-ARI.

(m) SCS - Logistical Facilities, such as Motor Vehicle Storage Buildings, Field Maintenance Shops, Combined Support Maintenance Shops, and USPFO facilities. (USPFO facilities are defined as that space in which work those individuals who directly work for the USPFO or appear on the USPFO manning document.)

(n) SC2 - : Only for AVCRADS (CA, CT, MS, and MO), Alaska Scout Armories, NGB Printing Plant (ME), Multimedia Group facilities (AL), Visual Information Support Center (TN), the DC readiness center and logistical support facilities, and space occupied by DoD contractors when the terms of the contract require that the government supply the space free of charge (e.g., government travel contracts.).

(o) SC3 – Only for those facilities or portions of facilities occupied by another DoD component as a tenant.

(p) SC4 – Readiness Center Lease Space – Only used for lease costs for readiness centers provided that a copy of the lease is on file with NGB-ARI, the lease had been entered in PRIDE, and NGB-ARI has approved the lease. No operations and maintenance costs authorized, except that no more than 25 percent of the amount of first year lease costs may be spread over four years to do facility alteration with minor construction funds.

(q) SC6 – Only used for utility costs for specified training aids and other Federally directed operational support costs for devices such as COFT, HAWK, GUARDFIST, FS-CATT, and Q36 and Q37 radar sets.

(r) SC8 – Unit Training and Equipment Sites (UTES), Maneuver and Training Equipment Sites (MATES), and Army Aviation Support Facilities (AASF).

(s) S12 – Storefront Recruiting Lease Space – Only used for lease costs for storefront recruiting space, provided that a copy of the lease is on file with NGB-ARI, the lease had been entered in PRIDE, and NGB-ASM has approved the lease. No operations and maintenance costs authorized, except that no more than 25 percent of the amount of first year lease costs may be spread over four years to do facility alteration with minor construction funds and except that utility costs may be reimbursed. However, utility costs may be reimbursed only in the case of utilities that are separately metered specifically for the leased space or that are separately billed based upon a pro-rata distribution including only the space occupied by the recruiters.

(2) 75% Federal Support/25% State Support, unless specified differently below except that specified, approved operations and maintenance minor construction projects are eligible for 100% Federal reimbursement.

(a) SC1 - Licensed readiness centers.

(b) SC5 - Lease Space (Non-readiness center): Utility costs only. Cost of lease reimbursed 100%.

(3) 50% Federal Support/50% State Support, unless specified differently below, except that specified, approved operations and maintenance minor construction projects are eligible for Federal reimbursement in accordance with 10 U.S.C. §18236.

S-15 - State owned readiness centers: Only utilities; maintenance and repair of AGR/technician offices and work areas; and repair of major building systems (e.g., heating, ventilating, air conditioning; boilers; roofs; windows; overhead doors; utility systems).

(4) 100% State Support. Costs associated with facilities with the following agreement support codes are not authorized reimbursement:

(a) A blank or other unrecognizable entry in the agreement support code field of the FISP.

(b) An agreement support code of “NO.”

(5) Federal support from other than NGB-ARI issued funds. (Amount of support is usually 100%, but that amount may vary for certain programs.) Expenditures must be executed through NGB-ARI AMSCOs except that funds provided by NGB-CD will normally be executed through their AMSCOs.

(a) T10 - National Guard youth program facilities, such as ChalleNGe: funded by NGB-AY.

(b) SC7 - Facilities used for special surface and aviation maintenance repair and rebuild programs, funded by NGB-AVS, NGB-ARL, or NGB-ART.

(c) SC9 - Controlled Environment Warehouse facilities, which provide controlled humidity storage for wheeled and tracked vehicles or civil disturbance contingency equipment: funded by NGB-ARL.

(d) S10 - Facilities used in support of counter drug programs: funded by NGB-CD or other, non-ARNG agencies.

c. Reimbursement for operations and maintenance construction. If a non-readiness center facility is on the FISP (or will be approved to be on the FISP for support after the completion of construction) and does not have an agreement support code of "NO," the rate of reimbursement for construction is 100%. (Otherwise, the State is not eligible for reimbursement.) Reimbursement, however, may not be for an area in excess of NGB criteria (as listed in NG Pam 415-12). As an exception, the rate of reimbursement for construction at State-owned readiness centers on the FISP, no matter what the agreement support code, is 75%, except that it is 100% in the following instances:

(1) Projects required to meet a change in Department of Defense construction criteria or standards related to the execution of the Federal military mission assigned to the unit(s) assigned to the facility.

(2) Projects made necessary by the NGB directed conversion, redesignation, or reorganization of unit(s) assigned to the facility .

(3) Projects for space jointly used by units of two or more reserve components of the armed forces.

d. Rates of Federal reimbursement for single use facilities are 100%, 75%, 50%, or 0%. Some facilities, however, receive reimbursement from other than FP funds. Some facilities have multiple uses and different reimbursement rates for separate parts of the facility.

e. In those cases where a facility, a Federally reimbursed State employee, or a purchase supports more than one type of agreement support code, reduce the requested level of reimbursement accordingly. For example, if an employee works on 20,000 square feet of 100% facilities, 40,000 square feet of 75% facilities, 30,000 square feet of 50% facilities, and 10,000 square feet of no support facilities, then the rate of reimbursement to the State shall be 65%.

f. NGB-AQ cooperative agreement directives list several exceptions to these rules. For example:

(1) Employees authorized for the Construction and Facilities Management Office may receive 100% of their allowable costs reimbursed.

(2) Certain construction projects at State owned readiness centers are reimbursed at 100%, as listed in paragraph 2-6c above.

(3) Approved Act of Nature damage repair projects are authorized as follows. The Federal share for damages to those readiness centers coded under the FISP as SC1 or SC2 shall be 100 percent.

	Federal Share	State Share
Readiness Center	75%	25%
Non- Readiness Center	100%	0%

2-7. Components of the FP Program

a. Operations and Maintenance Minor Construction.

(1) Construction is the erection, installation, or assembly of a new facility; the relocation of a facility; the complete replacement of an existing facility; or the addition, expansion, extension, alteration, or conversion (to a new type use) of an existing facility. This includes equipment (but not fixed or moveable personal property) installed and made a part of facilities and related site preparation, excavation, filling and landscaping or other land improvements. It also includes increases in components of facilities for functional reasons and the extension of utilities to areas not previously served.

(2) Operations and maintenance construction has a statutory limit of \$750,000, except that limit increases to \$1,500,000 , if the project is "solely to correct a deficiency that is life-threatening, health-threatening, or safety-threatening."

(3) Operations and maintenance construction may be executed via contract or troop labor or in-house work force.

b. Sustainment, restoration, and modernization.

(1) Sustainment provides resources for maintenance and repair activities necessary to keep an inventory of facilities in good working order. It includes regularly scheduled adjustments and inspections, preventive maintenance tasks, and emergency response and service calls for minor repairs.

(a) It also includes major repairs or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the life cycle of facilities. This work includes regular roof replacement, refinishing of wall surfaces, repairing and replacement of heating and cooling systems, replacing tile and carpeting, and similar types of work.

(b) It does not include mowing, soil stabilization, care of shrubs and plants, and similar activities.

(2) Restoration is the repair and replacement work necessary to restore facilities damaged by lack of sustainment, excessive age, natural disaster, fire, accident, or other causes. It reduces the backlog of facilities rated C-3 and C-4 on the Installation Status Report.

(a) Restoration may include overhauling, reprocessing, or replacing deteriorated component parts or materials.

(b) Restoration is also the relocation or reconfiguration of land and building components and utility systems and the upgrade of the same to current building and other codes.

(3) Modernization is the construction of new or alteration of existing facilities solely to implement new or higher standards (including regulatory changes), to accommodate new functions (or change the purpose of a facility), or to replace building components that typically last more than 50 years (such as foundations and structural members).

(4) This work may be executed via in-house work force, contract, or troop labor.

(5) Federal reimbursement for this work at State-owned readiness centers is limited to those coded for support and then only for the work space of Active/Guard/Reserve (AGR) personnel and Federal technicians and for repairs to major building systems. Examples of the latter are heating, ventilating, air conditioning; boilers; roofs; windows; overhead doors; utility systems, etc.

(6) Projects above \$3 million must be forwarded to NGB-ARI for transmittal to the Assistant Secretary of the Army (Installations and Environment) for approval.

c. Utilities. This includes either the operation of the following utility systems or the purchase of service: water, waste water, electricity, central heating/cooling, and natural gas. It also includes rental charges for portable latrines and communication charges exclusively in support of Appendix 1 of the Master Cooperative Agreement. The CFMO shall seek reimbursement from users who request additional rented portable latrines beyond those normally set at training centers.

d. Municipal Services. This includes purchase or operation of refuse services, indoor and outdoor pest control, custodial services, snow/ice/sand removal, street sweeping services, and mowing, soil stabilization, care of shrubs and plants, and similar activities.

e. Facilities Engineering Services

(1) Salaries and benefits of all Federally reimbursed State employees in the Construction and Facilities Management Office or working elsewhere in the State Military Department but considered part of the Construction and Facilities Management Office for Federal funding purposes in accordance with NGB-AQ cooperative agreement directives.

(2) Information management systems for the Construction and Facilities Management Office.

(3) Contracts for inspection, construction management, and engineering management.

(4) Equipment and supplies to support the Federally reimbursed portion of the Construction and Facilities Management Office.

(5) Housekeeping and cleaning supplies for the use of FP-PAS employees.

(6) Operational supplies (i.e., items consumed in support of Appendix 1 of the Master Cooperative Agreement).

(7) Purchase, repair, and rental of machines, tools, and equipment in support of Appendix 1 of the Master Cooperative Agreement.

(8) Administration of and accountability for real property, including payment of fees to the Army Corps of Engineers.

(9) Conduct of hydrology and other required site investigation and engineering studies, including required Environmental Baseline Surveys (EBS) and National Environmental Policy Act (NEPA) for readiness center military construction projects, but excluding studies associated with environmental restoration and the preparation of environmental plans such as Stormwater Management Plans and Spill Prevention, Control, and Countermeasures Plans. It is the responsibility of the military construction project proponent to fund NEPA requirements, including the EBS. DFAS Manual 37-100-XX expressly states that environmental funds cannot be used to fund NEPA unless it is part

of an environmental project. This means that surface maintenance, aviation maintenance, and training must fund the EBS and NEPA for military construction and SRM projects for which they are the proponent.

(10) Master planning, to include the production and update of the Real Property Development Plan and the maintenance of geographic information system and other digitized engineering files.

(11) Airport use agreements.

- f. Fire and emergency services.
- g. Demolition not associated with construction
- h. Leases

Chapter 3

Typical Organization

3-1. General

Each State differs in complexity and may be organized appropriately. Functionally, however, the Construction and Facilities Management Office divides into the organization shown in Figure 3-1. However, if the State is organized differently, the functions shown in the remainder of this chapter would shift accordingly. The CFMO exercises technical oversight over any training center engineering activity within the State. Figure 3-1 follows, see next page.

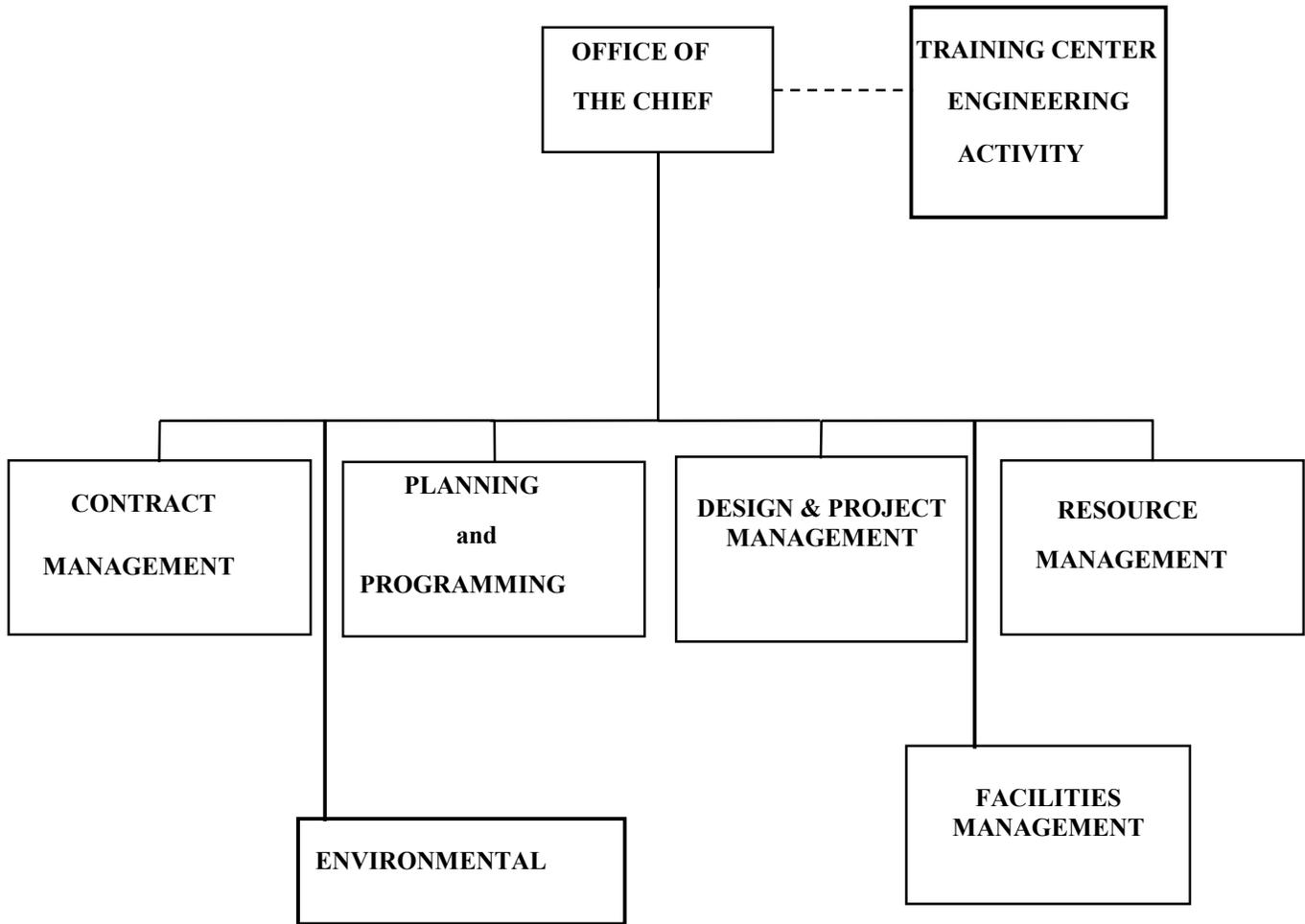


Figure 3-1. Construction and Facilities Management Office Organization
3-2. Primary Planning and Programming Tasks.

3.2. Primary Planning and Programming Tasks.

- a. Develops, maintains, and updates the Real Property Development Plan.
- b. Develops, maintains, and updates capital plans.
- c. Develops, maintains, and updates facility life-cycle plans.
- d. Develops the Adjutant General’s Federal capital program, to include the annual Long Range Construction Plan submitted to NGB-ARI.
- e. Develops, updates, and submits the State’s capital program.
- f. Develops, revises, and submits project programming documentation (DD Form 1390/1391, NGB Form 420-R, State documents).
- g. Develops, maintains, and updates the sustainment, restoration, and modernization program.
- h. Prepares annual Installation Status Report, Parts I and II. Provides engineering input to the Installations Status Report, Part III, and Service Based Costing.
- i. Develops, maintains and updates the energy program.
- j. Programs new systems and technologies (e.g., fire alarms, Distributed Training Technology Program facilities, Geographical Information System, physical security, DeLite, etc.)
- k. Coordinates the acquisition of legal interest in real property (title, lease, license, etc).
- l. Terminates legal interest in real property (title, lease, license, etc.)
- m. Manages out grants program (lease, licenses, use permits, etc.).
- n. Maintains real property accountability.
- o. Provides input to the Adjutant General’s validation of the Army Installation and Stationing Plan (ASIP).

3-3. Primary Design and Project Management Tasks

- a. Validates project documentation, to include project cost.
- b. Writes Architect-Engineering (A-E) scope of work; negotiates with and selects A-E firms for projects.
- c. Supervises design development.
- d. Requests construction funding.
- e. Bids projects.
- f. Supervises execution of sustainment, restoration, modernization, and construction projects, to include final inspection and satisfaction of warranty, including any required legal actions.

3-4. Primary Facilities Management Tasks

- a. Implements preventive maintenance program.
- b. Organizes, implements, and reviews sustainment, restoration, and modernization effort.
- c. Maintains and repairs CFMO vehicles, tools, and equipment.
- d. Ensures energy management program is implemented, to include utility conservation and any required energy reporting to higher headquarters.
- e. Manages the fire prevention program.
- f. Ensures performance of real property environmental requirements.
- g. Maintains physical security property.
- h. Maintains facility safety program.
- i. Manages custodial services.
- j. Manages utility services.
- k. Manages self-help program and coordinates troop projects.
- l. Performs regular facility inspections, to include those associated with the preparation of the Installation Status Report.
- m. Manages the terms of lease, shared-facility, and support agreement programs.

3-5. Primary Resource Management Tasks

- a. Initiates appendices to the master cooperative agreement, makes all required modifications, and closes out agreements.
- b. Projects cash flow and prepares allotment plans.
- c. Reviews for accuracy and processes State reimbursement vouchers to the USPFO. Completes reporting requirements required by NGB-AQ cooperative agreement directives regarding closeouts.
- d. Participates in all required audits of facility programs, no matter the agency.
- e. Prepares, executes, and closes out all budgets.
- f. Develops cost factors associated with all required reimbursement instruments and requests reimbursement based on these negotiated agreements.
- g. Completes facilities engineering portion of the Service Based Costing report.

3-6. Primary Contract Management Tasks

- a. Executes all service contracts, professional services contracts, construction/repair contracts and any other specialized contracts or separate purchases, identifying/verifying requirements, writing scopes of work, negotiating with bidders, requesting funds, awarding contracts, modifying contracts, coordinating inspections of work, and closing contracts.
- b. Initiates all military construction cooperative agreements; makes all required modifications, and closes out agreements.
- c. Performs title search and otherwise obtains required certificates of title.
- d. Enters into all necessary lease agreements.
- e. Coordinates warranty enforcement for all contracts/purchases.
- f. Ensures compliance with labor standards.
- g. Furnishes data for capitalization records.
- h. Maintains State contracting documents; updates State contracting policies, procedures, and formats.
- i. Maintains permanent project record files.

3-7. Environmental Tasks

- a. Implements and monitors the State's ARNG environmental programs including but not limited to: air and water quality management and permitting, NEPA, installation compatible use zones (ICUZ), solid and hazardous waste disposal and handling programs, pollution prevention and control, Polychlorinated Biphenyl (PCB) Management, underground storage tank management, Environmental Compliance and Assessment (ECAS) Program, Installation Restoration Program, cultural and natural resources management, threatened and endangered species, historic and archeology management..
- b. Reviews plans, specification designs, etc., to ensure they conform with environmental standards.
- c. Initiates, develops, and executes regulatory environmental guidance for the State, including detailed operating plans so that the State complies with Federal, State, and local regulations. Provides related environmental compliance guidance for the operation and maintenance of ARNG facilities and utility systems such as solid and hazardous waste disposal, fuel storage and dispensing, etc.
- d. Serves as the primary contact with regulatory agencies regarding environmental matters; with civilian authorities for installation project developments that have an impact on surrounding communities directed by NEPA; with Federal, State, and local agencies for notification of air and water quality construction, toxic and hazardous waste permits and other environmental projects; and for coordinating initial and ongoing Installation Restoration Program efforts.
- e. Directs the performance of surveys, inspections, and evaluation of activities to identify and initiate corrective action for deficiencies.
- f. Responsible for implementing, administering, and maintaining records of the hazardous waste management training program for State ARNG personnel. Program responsibilities include proper management, oversight of the hazardous waste management program, development of a working hazardous waste management plan, and directing a program for inspecting and maintaining all hazardous waste accumulation areas at ARNG facilities.
- g. Manages the environmental permit program which includes air, waste water discharge, pretreatment discharge, drinking water, and hazardous waste storage, disposal, or transportation.
- h. Reviews all environmentally related actions on work requests, real property actions, and proposed changes for environmental impact.
- i. Notifies Federal, State, and local agencies on matters dealing with legally binding reporting requirements.
- j. Establishes procedures for State ARNG under developments/interagency (State and local agencies) for coordination of land, facilities, environmental plans, and disagreements.

Chapter 4 Work Classification

4-1. General

- a. Real property facility projects include sustainment, restoration, modernization, demolition, and similar undertakings. The use of the terms sustainment, restoration, and modernization (SRM) is new, not readily applied in the civilian facilities engineering business. SRM has replaced the term Real Property Maintenance (RPM).
 - (1) The CFMO should look on SRM as a hierarchy that progresses from sustainment to restoration to modernization. Sustainment is the foundation effort for care and preservation of our facilities and includes those activities (repair or maintenance) that one would fully expect to accomplish during the projected life of the facility. Many of those sustainment activities become restoration activities (to restore deteriorated or damaged facilities) if one of three factors is present: an accident occurred, an "Act of Nature" occurred, or damage/deterioration occurred due to non-performance of sustainment activities. Modernization activities then encompass any action that constructs or alters existing facilities solely (or predominantly) to implement new or higher standards, to accommodate new functions, or to replace building components that typically last more than 50 years.
 - (2) Maintenance, repair, and construction are activities that the CFMO does. Sustainment, restoration, and modernization are programs that the CFMO administers.
 - (3) The advent of SRM has made the work classification of the CFMO much more complex.
 - (4) Because of statute, the CFMO must distinguish between construction and non-construction activities. Because of regulation, the CFMO must distinguish between repair and non-repair activities. Both of these actions require work classification.
 - (5) For financial and other reporting reasons, the CFMO must record program execution. That requires the CFMO to be able to distinguish among sustainment, restoration, and modernization. That is also work classification.

(6) In other words, the CFMO must be able to translate the activities of maintenance, repair, and construction into the programs of sustainment, restoration, and modernization.

(7) All maintenance activities (except mowing, soil stabilization, care of shrubs and plants, and similar activities, which are municipal services) are sustainment. All construction is restoration or modernization. However, repair may fall into any one of the three programs.

ACTIVITY	PROGRAM
Maintenance	Municipal Services
Maintenance	Sustainment
Repair	Sustainment
Repair	Restoration
Repair	Modernization
Construction	Restoration
Construction	Modernization

(8) In an attempt to ease the burden on the CFMO, this pamphlet discusses construction separately from the rest of SRM. This in no way implies that it is a separate program.

(9) Demolition that occurs during and because of an SRM project is funded with SRM funds, is considered part of the SRM project, and is included in any project/statutory limitations associated with the SRM project. Demolition that is not associated with an SRM project is considered its own project, is documented on its own NGB Form 420-R, and is funded from the demolition account. The demolition account may only be used for demolition not associated with an SRM project. Although the definition of demolition used in this and other Army National Guard facilities engineering and construction regulations and pamphlets is much more restrictive than that you may find in the commercial sector, the Army National Guard definitions of demolition and construction apply.

(a) Changes to building structural members and removal or replacement of existing building components are an integral part of an addition/alteration construction project, are accounted for on the NGB Form 420-R, and are funded only from the operations and maintenance construction account.

(b) Complete razing of existing structures on the site of a military construction project are part of the site preparation of that project, are documented on the NGB Form 420-R accordingly, and have their costs reimbursed at the same rate as other site preparation costs from operations and maintenance construction account.

(c) Although the complete razing of existing structures is part of the construction project, the rebuilding of those structures elsewhere is considered a separate project, unless those structures are completely functionally interdependent with the new facility.

(d) It is absolutely critical that all demolition projects be fully coordinated well in advance of their execution with all appropriate environmental staff, offices, and agencies, including the State Historical Preservation Office.

b. Real property facility projects constitute the basis for essentially all of a CFMO's activities. The management of real property facility projects is one of the most critical duties of the CFMO.

c. Because of the large amount of funds utilized in facilities engineering operations, the complexity of the work, and the size of the workforce, the CFMO is constantly required to interpret various regulatory restrictions on the utilization of funds and personnel. Many of these restrictions are in the form of statutory limitations enacted by the Congress, while other restrictions are regulatory or administrative in nature.

d. The determination of the proper source of appropriated funds to use on a specific project is governed by statutory and regulatory restraints and is subject to legal review. Violations of these rigid statutory and regulatory limitations are a serious offense. Therefore a clear distinction must be made between non-construction SRM projects and construction SRM projects.

e. Work classification definitions and rules apply to all facilities engineering work, regardless of who performs it and how it is funded.

4-2. Anti-Deficiency Act

a. Misclassification of construction as another SRM activity, errors in defining construction projects, and inappropriate applications of project change orders may result in a violation of the Anti-Deficiency Act, specifically 31 U.S.C. §§1301, 1341, 1501, 1502, and 1517. See DFAS-IN Regulation 37-1, Chapters 4 and 9, and DoD 7000.14-R, Volume 14, for details.

b. There are statutory limits on the use of operations and maintenance funds for construction. Normally the limit is \$750,000. However, if the project is “solely to correct a deficiency that is life-threatening, health-threatening, or safety-threatening,” the limit is \$1,500,000. (See 10 U.S.C. §18233a(b).)

c. The definition of construction includes installed building equipment (real property equipment) which is affixed and built into a facility as an integral part of the facility.

(1) See paragraph 5-6 for definitions of terms and examples of installed building equipment and other types of equipment (i.e., personal property).

(2) The cost of installed building equipment and its installation is part of the construction cost for that project. The same type of funds designated for the project must be used to purchase the equipment.

(3) Installed building equipment is not subject to the expense/investment threshold of \$250,000. For further details on this threshold, refer to DoD 7000.14-R, Volume 2A, para 010201.

(4) Installed building equipment is part of the funded cost of a construction project, increases the cost of the project, and thus may push a project over the statutory limit.

(5) The rules against incremental construction also apply to the purchase of installed building equipment. For example, if such equipment is required to make a facility complete and useable, then a CFMO may not delay purchase of the equipment to remain within the statutory operations and maintenance construction limit.

(6) Failure to properly distinguish between installed building equipment and personal property may lead either to violating the purpose of an appropriation or to exceeding an appropriation’s limits.

d. You may not increment or fragment construction for the purpose of circumventing statutory limitations. The end result of the construction project must be a complete” and usable facility(ies) or a complete and usable improvement to an existing facility. This also applies to land acquisitions, where you may not split your purchases across fiscal years (unless the desired parcel(s) are not on the market).

e. Initial project contracts may be obligated against a fiscal year’s funds only if a valid State obligation of the actual contract document takes place before the close of that Federal fiscal year. A change order against that contract may be obligated against the funds of the fiscal year of the original contract only if the funds have not yet expired (five years after the close of the fiscal year) and if the change order is within the scope of the original contract. Otherwise, the change order must be charged against current year funds.

f. The Anti-Deficiency statute states that any officer or employee of the United States (including members of the National Guard of the United States) who violates it is subject to appropriate administrative discipline, including suspension from duty without pay or removal. Those convicted of a knowing and willful violation may be fined not more than \$5,000 or imprisoned for not more than two years, or both.

g. Anti-deficiency violations are serious and affect the Army National Guard’s credibility. Department of Defense and Department of Army policy calls for disciplinary action in anti-deficiency violation cases. The fact that a violation was not willful only means that it did not constitute a crime, not that it does not warrant disciplinary action. Circumstances such as “a heavy workload at year-end” or an employee’s “past exemplary record ” generally are relevant only in determining the appropriate level of discipline, not in determining whether discipline should be imposed. CFMOs are encouraged to seek guidance from their USPFO and the Army Installations Division (NGB-ARI) if they have questions regarding an action that could potentially result in an antideficiency violation..

4-3. Program Descriptions

a. Sustainment. Sustainment is the work required to maintain and preserve a real property facility (RPF) in such condition that it may be effectively used for its designated functional purpose.

(1) Sustainment includes cyclic work done to prevent damage that would be more costly to restore than to prevent. Sustainment includes work to sustain components. Examples include renewal of disposable filters, painting, caulking, re-fastening loose siding and sealing bituminous pavements. Painting done in connection with restoration or modernization work (i.e., as a result of the restoration/modernization project) is properly classified as restoration or modernization.

(2) Sustainment also includes major repairs or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the life cycle of facilities. This work includes regular roof replacement, refinishing of wall surfaces, repairing and replacement of heating and cooling systems, replacing tile and carpeting, and similar types of work.

b. Restoration. Restoration is work that brings an RPF to such condition that it may effectively be used for its designated functional purpose. Restoration restores or replaces facilities damaged by lack of sustainment, excessive age, natural disaster, fire, accident, or other causes.

(1) Restoration may be overhaul, reprocessing, or replacement of deteriorated component parts or materials.

(2) Restoration corrects deficiencies in failed or failing components of existing facilities or systems to meet current Army standards and codes where such work, for reasons of economy, should be done concurrently with restoration of failed or failing components. Corrective work may involve incidental increases in quantities or capacities.

(3) A utility system or component may be considered “failing” if it is energy inefficient or technologically obsolete, provided:

(a) The utility system or component of such a system exists and is fact, energy inefficient or technologically obsolete.

(b) The system/component to be replaced has been in service for a minimum of 3 years.

(c) The project is estimated to have a payback period of 10 years or less.

(4) Regardless of the above paragraph, a utility system is also “failing” if it is in violation of environmental laws or regulations.

(5) Restoration may be major work (e.g., building interior gutting and replacement) required to restore a generally deteriorated facility to such a condition that it may be effectively used for its designated purpose.

(a) Such an undertaking may include, under the classification of restoration, the relocation or reconfiguration of utility systems and other building system components into arrangements to meet current standards and current code requirements to the extent that the total area or population served by the utility system being replaced is not increased. An increase in total area or population served is both the program of modernization and the activity of construction and must conform to the statutory limits and requirements of construction.

(b) In case of failed or failing systems, such an undertaking may also incorporate additional components, if based on good engineering practice and to meet current code requirements, to permit the efficient and safe use of the replacement system.

(6) When a restoration project replaces a destroyed facility or one that has aged beyond its useful life or is uneconomical to repair, it is the activity of construction and must conform to the statutory limits of construction.

c. Modernization. Modernization is the construction of new or the alteration of existing facilities solely to implement new or higher standards (including regulatory changes), to accommodate new functions (or change the purpose of a facility), or to replace building components that typically last more than 50 years (such as foundations and structural members).

(1) With the exception of the replacement of building components that last more than 50 years, which is repair, all of the program of modernization is the activity of construction. Construction is more explicitly discussed in paragraph 4-3d below.

(2) Modernization includes increases in quantities of components for functional reasons and the extension of utilities or protective systems to areas not previously served. This is the activity of construction, as is the increase in exterior building dimensions.

(3) Complete replacement of an RPF is construction and may be restoration or modernization depending on the purpose of the replacement. Replacement because the mission of the building has changed or it no longer meets space requirements for existing missions (e.g., changes in personnel or equipment of assigned units) is modernization. Replacement because the building has aged beyond its useful life is restoration.

d. Construction. (Note: Operations and Maintenance construction threshold is \$750,000, except that it is \$1,500,000 if the project is “solely to correct a deficiency that is life-threatening, health-threatening, or safety-threatening.”) Construction is a subset of the program “modernization.” However, to help the CFMO avoid statutory problems, it is defined separately.

(1) The erection, installation, or assembly of a new facility.

(2) The addition, expansion, extension, alteration, conversion (in the sense of facility modification caused by a change in facility utilization), or complete replacement of an existing facility.

(3) The relocation of a facility from one installation to another.

(4) Installed building equipment made a part of the facility.

(5) Related site preparation, excavation, filling, landscaping or other land improvements.

(6) Foundations, site work and utility work associated with the setup of relocatable buildings in accordance with AR 420-18.

e. Act of Nature Damage. Damage to real property as a result of natural disasters such as hurricanes, tornadoes, other windstorms, hail, lightning, flooding, avalanches, mud slides, tidal waves, and earthquakes.

4-4. Work Classification Applications

a. All actions must be based upon good faith, sound judgement and conformance with all regulatory requirements and limitations (e.g., 10 U.S.C. §§2801-2802, 10 U.S.C. §18233a(b), NGB-AQ cooperative agreement

directives, and NGR 420-10). The decision making process should be supported by clear examples in the project file. When doubt exists, the CFMO should request clarification from NGB-ARI.

b. The two principal considerations when performing work classification are:

(1) Strict adherence to the prohibition against incrementing or fragmenting construction for the purpose of circumventing approval authority limitations.

(2) An honest assessment of what constitutes a "complete" and "usable" facility(ies) or a "complete" and "usable" improvement to an existing facility.

(a) Example A. An airfield exists and is in use. There are concurrent requirements for a new control tower and an addition to the hangar. Each is properly a separate project, since each is independently "complete and usable" upon completion.

(b) Example B. A new airfield is to be constructed where none now exists. Assume the requirements for the airfield consists of a control tower, hangar, landing strip and taxiways. Classification of each facility as a separate project would be improper. While each may be "complete," such interrelated facilities are not, in fact, independently "usable."

(c) Example C. An administrative building exists and is in use. There are concurrent but unrelated alteration requirements in the basement's mechanical room and in the headquarters area of the facility. Each is properly a separate project, since each is independently "complete and usable" upon completion.

(d) Example D. A new commissary is to be established at an installation where none now exists. The installation is planning on using three existing vacant collocated buildings and the surrounding paved area for parking. The three buildings and parking area require restoration and modernization in order to convert the buildings into a complete and usable commissary facility. Classification of each building as a separate project would be improper. While each may be "complete," such interrelated facilities are not, in fact, independently "usable" until all four components of the commissary are completed, i.e., the sales store, the dry storage, the cold storage and the parking lot. In this case one modernization and one associated minor construction project should be developed and approved for all work needed to establish a commissary.

c. An SRM project by nature is a "single undertaking" (i.e., an activity which would be readily and separately identified as a logical task). A single undertaking could range from repairing one block in a sidewalk to all work required to repair a building. Its scope is dependent upon need for accomplishment, economical contracting practice, and good engineering judgment. Also, the scope may be limited by fund availability. However, when a finite project is to be funded (phased) over a number of years the entire project must be approved at one time. Project scope must be based on reason or logic that could not in any way be interpreted as intending to circumvent dollar approval levels. Restoration and modernization projects are further defined as involving "a finite scope." This could be restoring only the deteriorated wallboard in one building or restoring many items. If many items are of equal priority in the same facility, and good engineering judgment indicates that they should be accomplished simultaneously, they should be considered as a single undertaking of finite scope and therefore one project. However, when sustainment, restoration, modernization, and minor construction are to be done at the same time, sustainment, restoration, modernization (not construction), and minor construction work may be treated as four separate projects.

d. An analysis of work classification and project scope is essential in determining project approval level and adhering to statutory and regulatory requirements and limitations. The scope of a contract may include one or more projects or one project may be divided into several contracts. Project approval levels do not apply insofar as the packaging of contracts is concerned. A contract scope must be determined on the basis of good engineering principles, operational and administrative considerations, and contracting practices that are in the best interest of the government.

e. The availability of funds does not affect approval levels or what must be combined into a project. Additionally the type or source of funds does not effect the work classification rules or project scope determinations; however, approving officials must consider limitations when other than Operations and Maintenance National Guard funds are being used. Similar type restoration or modernization work need not be combined into a single project or a restoration or modernization project need not satisfy a total requirement. SRM projects that are single undertakings, of finite scope, and/or satisfy specific requirements, may stand alone. Work must not, however be divided into a number of projects solely to keep the projects within approval authority.

f. Restoration means that the facility or facility component has failed, or is in the stages of failing or is no longer performing the functions for which it was designated. Restoration may sometimes include repair work that under other circumstances would be considered as construction. For example, a partition relocated to provide clearance for a replacement of a failed or failing heating system of different physical dimensions, would be properly classified as repair, even if the wall itself did not need repair. Indeed, partitions relocated to provide a better interior

arrangement would be the activity of repair and not construction, as long as the project does not add additional square footage, create new facilities, or change the function use of the existing facility (i.e., the real property category code of the facility).

g. Restoration also means something exists which needs to be repaired and that major upgrading does not result. For example, replacing a 4-gallon fire extinguisher with an automatic sprinkler system is not restoration. Neither is replacing a long deteriorating electrical extension cord with conductors in conduit considered restoration or replacing a deteriorated ceiling-mounted light fixture with a chandelier. All are modernization and construction, because they upgrade beyond current code requirements.

h. In the case of component replacement, the above does not require that repairs must be in kind nor does it preclude the use of improved materials, equipment, methods or arrangements. As a matter of general policy, energy and water saving materials should be used in restoration projects. An economic analysis should be a routine decision making tool in the selection of materials or methods of SRM.

i. Standards change, and the Army National Guard will comply with current codes and practices. A broken or failing 4-inch sewer line may be replaced with a 6-inch line if the latter size is the current minimum standard permitted. However a replacement of a sewer line in good condition with a larger size to provide additional capacity to serve a proposed new facility would be modernization and construction.

j. Complete replacement of a facility is construction. Partial replacement may be restoration as long as the replaced components are failing or deteriorating and as long as the facility is not being completely replaced. For work classification purposes, a Real Property Facility is a separate and individual building, structure, utility system or other real property improvement identifiable in the three-digit Category Codes listed in DA Pam 415-28.

(1) Buildings. One enlisted personnel barracks (Category Code 721) represents a single RPF. A barracks facility damaged by fire may be restored as repair if the foundation and walls still exist, and do not require total replacement.

(2) Utilities. A single (physically or geographically identifiable) water supply, treatment, and storage facility (Category Code 841) represents a single RPF. Items such as failing wells or water storage tanks may be completely replaced as restoration and repair since they are considered component parts of a RPF.

(3) Surfaced Areas. All the real property improvements listed under the three digit category codes 851 (roads) or 852 (sidewalks and other pavement) are a single RPF. All contiguous airfield pavements, i.e., runways, taxiways, aprons, category code 110, represents a single RPF. Failing bridges or airfield runways may be completely replaced as restoration and repair since they are considered component parts of a RPF.

k. In the case of major facility restoration (e.g., interior gutting and removal), where building components, such as partitions, windows, doors, or utilities need to be replaced, such work is restoration and repair even though replacement items may be installed in a different location or configuration within the building than the original components. This applies to the replacement of utilities or protective systems, when such systems are not extended to areas within the building not previously served. However, an increase in quantities of building components, area served by utilities or protective systems, or exterior building dimensions, is modernization and construction.

l. A utility system or utility system component may be considered failed or failing when that item is energy inefficient, or technologically obsolete, has been in service for at least three years and the replacement has a savings to investment ration (SIR) of 1.25 or greater and/or a payback of 10 years or less. Projects that may qualify under technological obsolescence as restoration and repair include:

(1) Replacing T-12 fluorescent lamps (F40T12) and electromagnetic ballast with T-8 fluorescent lamps (F32T8) and electronic ballast.

(2) Replacing motors with premium efficiency motors

(3) Replacing air conditioning/heat pumps with high SEER equipment

(4) Replacing toilets, faucets and shower heads with low-flow fixtures (1.6 gallons per flush, for toilets; 2.5 GPM for faucets and shower heads).

(5) Replacing boilers/furnaces with high efficiency boilers to include modular boiler systems and condensing furnaces.

m. Energy Savings Performance Contracting (ESPC) Guidance. Although an ESPC contract is not in and of itself SRM, the effect of executing such a contract will more than likely result in SRM.

(1) ESPC is a contracting procedure in which a private contractor evaluates, designs, finances, acquires, installs and maintains energy savings equipment for an agency and receives compensation based upon the performance of that equipment. The conditions of the contract determine the level of compensation to the contractor, with the remainder of the savings retained by the agency. This type of contract provides an alternate method of implementing energy savings projects when installation resources such as manpower, technical expertise or funding are not available.

(2) Determination of project viability is based upon such factors as utility rates and costs, availability of conservation opportunities, projected building use requirements, ease of performance verification and support of the contracting, engineering and legal personnel. A preliminary technical and economic analysis must be conducted to determine if a proposed energy conservation measure has ESPC potential, which will be based on both the agency's ability to achieve a reduction in operating costs, and the contractor ability to obtain an acceptable return on investment.

(3) Examples are: a lighting retrofit, replacing existing inefficient fixtures with high efficiency light fixtures. The agency benefits from lower electrical usage and reduced maintenance. A large government chiller was old and inefficient and the government could not afford to replace it within its existing budget. The contractor replaces the chiller and the government pays the contractor for the chilled water produced by the chiller. The government benefits from the cost advantage offered by the high efficiency unit and pays the contractor over time, avoiding the large initial capital cost.

(4) Payments are generally out of the utilities accounts, not SRM accounts.

(5) This guidance applies to both Federal and State ESPC contracts.

n. Minor Constructions Prohibitions

(1) No project may be subdivided in order to reduce cost for the purpose of approval and circumventing statutory limits. Phasing of construction on an existing facility or a new facility is not permissible, unless each phase results in a complete and usable facility or the entire project is approved before the first phase begins and the entire project falls under the statutory limit. "Phasing" is the process of breaking a complete project into sequential tasks such as foundation, superstructure, and finish work. One "phase" is no good without the companion "phases" as far as producing a complete and usable facility. Incremental construction on an existing facility is not permissible. Incrementing is segmenting a complete project into usable "increments" as construction of an airfield could be broken into increments of runway, taxiways, aprons, control tower, and hangers. Each are complete and usable, but the total project is not complete until all increments are complete and the total requirement satisfied.

(2) Operations and Maintenance minor construction authority will not be used to begin or complete a major military construction project that is contained in the annual Military Construction Appropriation.

(3) Project cost limitations in effect at the time of approval of an Operations and Maintenance minor construction project remain effect throughout the life of the project. Any subsequent change in project cost limitations can not be applied to previously approved minor construction projects. The project must be resubmitted for approval.

(4) All work on a minor construction must be immediately halted as soon as it becomes apparent that the projected total funded cost of a project will exceed the statutory limitation (currently \$750,000, except that it is \$1,500,000 if the project is "solely to correct a deficiency that is life-threatening, health-threatening, or safety-threatening"). At that point first contact your USPFO and then NGB-ARI for assistance.

4-5. Calculating Funded and Unfunded Project Costs

a. Funded and unfunded project costs are defined in NGR 420-10, paragraphs 5-4b and 5-4e. Funded costs are those that determine statutory/approval limits. The sum of funded and unfunded costs for a project establishes the amount at which the CFMO shall capitalize the project in the Federal real property files and the Federal real property database and so enter it in "Facilities Center."

b. These costs apply whether a project is a construction SRM project or a maintenance or repair SRM project.

c. Proper calculation of these costs is essential to ensure that a CFMO accurately capitalizes a project and adheres to statutory and approval limits.

d. Because most projects, particularly the more substantial ones, will be executed via contract, the determination of project costs are merely a matter of tracking the separate disbursement of funds against the design contract and the construction SRM contract.

e. However, when the CFMO executes either the design or the construction SRM project in house, then he/she must keep complete and thorough records.

(1) For most types of costs, this is a matter of tracking time sheets or bills for services.

(2) However, if a CFMO uses Federal government furnished equipment (most likely during a troop labor project), then he/she must calculate the costs for maintenance and operation of government-owned equipment (including organic troop unit equipment). To cost these items use the USPFO published reimbursement rate for the use of such equipment by the State. If these rates do not exist, use the rates in Guard Knowledge Online (GKO) under the Army Logistics Division Logistics Support Branch (the cost factors spreadsheet). This will provide you the funded costs.

(3) Depreciation of government-owned equipment is an unfunded cost. If the equipment is more than 8 years old, the unfunded cost is zero. If the equipment is 8 or fewer years old, then the unfunded cost for that piece of equipment is 0.0342% times the acquisition price times the number of days the piece of equipment is used.

4-6. Real Property Improvements

a. Only certain projects are capitalized and the sum of their funded and unfunded costs entered into “Facilities Center.”

b. For all practical purposes only the capitalized amounts of construction, modernization, and certain sustainment projects are entered: all construction projects, and all sustainment and modernization projects of \$100,000 or more.

c. The critical question is whether the project constitutes a real property improvement. Only the costs for those projects are entered in “Facilities Center.”

d. By definition, a real property improvement is a project that increases a real property asset’s square footage, size, efficiency, or useful life. That is, if a replacement was undertaken to improve or expand the efficiency of an asset that was in good working order, then the replacement is an improvement to be capitalized. When a facility or facility component has failed, is in the incipient stages of failing or is no longer performing the functions for which it was designated, it is not a capital improvement.

e. The above constitutes the requirement. In actuality, the CFMO should also be tracking in “Facilities Center” at minimum all construction and all restoration projects.

Chapter 5

Work Classification Examples

5-1. General

a. All actions must be based on good faith, sound judgement, and conformance with all regulatory requirements and limitations.

b. There are two principal considerations when performing work classification determinations.

(1) Strict adherence to the prohibitions against incrementing or fragmenting construction for the purpose of circumventing approval authority limitations.

(2) An honest assessment of what constitutes a “complete” and “usable” facility(ies) or a “complete” and “usable” improvement to existing facility(ies).

c. Look at any work classification decision regarding SRM assuming you received an operator's manual for the facility. If the action you plan to take is in the Operator's Manual, it is sustainment. If the action is not in the operator's manual, then it probably is restoration, provided the criteria for modernization have not been met.

d. This chapter contains a few specific examples of construction and other type SRM work. Even though the restoration and modernization programs include both repair and construction components, all of the restoration examples consist only of repair, and all of the modernization examples consist only of construction.

e. This chapter does not attempt to determine funding sources for projects. As a rule of thumb the examples are for projects funded from the FP. If projects involve environmental compliance, then use environmental compliance funds if the project's purpose is to meet new or more stringent legal environmental requirements or to bring a system back into compliance if a regulatory agency has issued an enforcement action that requires corrective action. Otherwise, use FP funds, even if along the way you incidentally resolve an environmental compliance issue.

5-2. Buildings & Roads

a. Sustainment.

(1) Buildings:

(a) Painting of building exterior or interior.

(b) Pointing of masonry joints and sealing masonry walls.

(c) Reroofing.

(d) Overlay of wood floors in kind, or overlaying with hardboard and resilient flooring or carpeting.

(e) Overlay of concrete floors with concrete topping, resinous floor coating, ceramic or quarry tile.

(f) Replacement of wood steps and platforms with concrete.

(g) Replacement of windows, doors, screens, siding, trim, skirting, stair treads and risers, railings, ladders, fire escapes, and shelves.

(2) Roads and Railroads:

- (a) Seal coat, asphalt rejuvenation and a single surface treatment of asphalt roads and hard stands.
- (b) Cleaning and sealing of cracks and joints in pavements.

b. Restoration.

(1) Buildings. Restoration includes incidental interior rearrangements, including utilities, as long as the project does not add additional square footage, create new facilities, or change the function use of the existing facility (i.e., the real property category code of the facility). In general, deteriorated materials or unserviceable surfaces may be replaced or overlaid with the same materials or current standard materials. This is restoration and not sustainment provided that the replacement occurs because of a failure to maintain the facilities to a C-1 standard whether for lack of funds or other reasons (such as a fire, accident, or Act of Nature damage). On the other hand, if you execute such work when the original materials have reached the end of their useful life, the work is sustainment. Restoration also includes interior rearrangements, including utilities, as long as the project does not add additional square footage, create new facilities, or change the functional use of the existing facility (i.e., the real property category code of the facility). In that case the work would be modernization.

(a) Replacement of wall linings that have deteriorated because of a failure to properly maintain them.

(b) Replacement of sheathing and framing that have deteriorated because of a failure to properly maintain them.

(c) The replacement of failing wood trusses or installation of supplemental trusses, beams or columns to augment the existing failing roof structural system. Note: Significant strengthening of structural systems, specifically to increase the load carrying capacity beyond initial design capacity to accommodate changed usage, is modernization.

(d) Installation of prefabricated siding over deteriorated siding or siding which will not economically retain paint is restoration. For the latter, replacement of the siding must be cost effective with respect to painting over the expected life of the facility. Installation of insulation, where none exists, to meet current criteria would be considered restoration if it was accomplished in conjunction with residing or replacement of a wall liner, ceiling or roof. In case of the wall liner or ceiling, these must exist and be in a failed or deteriorated condition, otherwise the installation of only insulation, where none exists, is properly classified as construction. In a similar situation, even though it is proven to be more cost effective to paint building interiors by first covering the unlined ceilings and walls with gypsum board than to paint bare studded walls and exposed trusses, the installation of the gypsum board ceiling and painting must be classified as modernization.

(e) When the restoration of a generally deteriorated building requires the replacement of partitions, such replacements do not have to be reinstalled at the original location or in the same configuration to be considered restoration. However, the increase in the amount of linear feet of partitions over the amount previously removed is modernization.

(f) Replacing insulation that has become ineffective or hazardous is restoration. However, adding additional insulation just to reduce energy costs is modernization.

(g) Replacing exhaust systems in indoor ranges with multiple air filters in series and pressure drop meters across each filter (or any other project to comply with ventilation and air quality standards) is restoration.

(2) Roads and Railroads:

(a) Work necessary to restore a pavement to serve its designated purpose including replacement of constituent materials (surface course, base course, sub-base, etc.) is restoration. Asphalt concrete overlays to repair failed or failing pavements may be accomplished to accommodate accumulated normal growth and evolutions in missions, equipment, and facilities; however an overlay that is used to convert unsurfaced roads or roads with only a surface treatment to an asphalt or concrete surface is modernization. Asphalt concrete overlays to increase pavement strength to accommodate a change in mission is modernization and may not be accomplished as restoration. Restoration of a pavement following deterioration, damage, or failure, which comprises complete reconstruction of the pavement facility (i.e., a complete road or parking lot, to include subgrade and subbase), is modernization and construction and may not be accomplished as restoration and repair.

(b) Work necessary to repair failed or failing storm drainage systems including reshaping, seeding or sodding ditches or channel slopes, and replacing damaged or deteriorated drainage structures is restoration and repair.

(c) Paving of the invert of an open drainage ditch, to increase hydraulic efficiency or as an erosion control measure, is restoration. When paving sidewalls and the invert concurrently, the entire undertaking is classified as modernization. Paving of sidewalls only is modernization.

c. Modernization.

(1) Buildings. Work pertaining to the conversion, addition, expansion, extension, alteration, or total replacement of a building is classified as modernization.

(a) New partitions, lining of unlined walls and ceilings, including the necessary painting and associated insulation is modernization.

(b) Initial permanent installation of equipment, adding doors, windows, for functional reasons is modernization. However, in case of conversions, restoration of the facility that would have been done regardless of its functional use and irrespective of the conversion project, is classified as restoration.

(c) Adding extra insulation to reduce energy costs is modernization.

(d) Adding energy efficient windows or adding a reflective coating on the windows to reduce energy transfer is modernization.

(e) Any energy project or project to improve energy efficiency is modernization, unless the building component is already failing or has reached the end of its service life (in which case the project is restoration).

(2) Roads and Railroads:

(a) Work which will increase the base data of surfaced areas (widening, extending and enlarging) is modernization; except, however, an increase in road, street or bridge lane width to meet current minimum standards if accomplished incidental to major repair of the existing facility, is properly classified restoration.

(b) Installation of additional appurtenances, such as drainage structures, curbs, and combination curb and gutters is modernization, except as follows: concrete curb and gutters which are added incidental to major street and parking lot repair are classified as restoration of existing pavement edges and shoulder. Any extensions to storm drainage systems to accommodate the curbs and gutters is classified as modernization.

5-3. Grounds

Any work that involves planting grass and other ground cover, flowers, shrubs, or trees, caring for these items, or replacing them is considered a municipal service and not part of the sustainment, restoration, and modernization program. The only exception is that landscaping that is an integral part of a construction project is considered restoration or modernization, depending on the classification of the construction project.

a. Sustainment.

(1) Upkeep of structural measures and non-vegetative surface treatments to control dust, erosion, and surface water.

(2) Removal of sediment from erosion control structures, barriers or catchments and from constructed ranges and real property facilities.

(3) Application and cleaning of crushed rock and gravel blankets and other measures to keep manmade drainage systems in good order.

b. Restoration. Erosion control measures such as the replacement of rip-rap, gabion structures or small check dams that have deteriorated because of failure to properly maintain them is repair. However, the initial placement of these items to prevent or contain erosion is modernization, and their day-to-day upkeep is sustainment.

c. Modernization.

(1) Extending subsurface or surface drainage systems to include additional drainage area is modernization.

(2) Creation of an erosion control structure for grade control and channel lining where no previously constructed erosion control structure existed is modernization.

5-4. Utilities

a. Sustainment.

(1) Periodic replacement of filters, belts and brushes in heating, pumping, ventilation, air conditioning and refrigeration systems.

(2) Flushing and cleaning of boilers

(3) Relamping

b. Restoration.

(1) Replacement of failed or failing light fixtures with fixtures which provide the correct level of illumination prescribed by current Army standards or codes is restoration.

(2) Replacement of a failed or failing manual control system with an automatic state of the art control system is still restoration.

(3) The replacement of a heating system that is failed or failing with a heat pump will be part restoration (for heating) and part construction (for air-conditioning) if air-conditioning does not exist. Any sound engineering method of establishing modernization and construction allocation of project costs between construction and non-construction components may be used.

(4) Replacement of a failed or failing direct bury system with a shallow trench or overhead system is restoration.

c. Modernization.

(1) A fuel conversion on a serviceable furnace, boiler, or water heater, unless the existing equipment is obsolete.

(2) Installation of new installed building equipment or systems, such as, kitchen equipment, space heating, water heaters or plumbing systems.

(3) The alteration of any serviceable air-conditioning or ventilation system to improve or increase operating characteristics.

(4) Upgrading lighting systems, whether for anti-terrorism/force protection or for energy efficiency.

(5) Adding energy efficient windows or adding a reflective coating on the windows to reduce energy transfer.

(6) Any energy project or project to improve energy efficiency, unless the component is already failing or has reached the end of its service life (in which case the project is restoration).

5-5. Asbestos

a. Restoration.

(1) If asbestos containing material (ACM) is in a failed or failing condition, abatement work is considered restoration. This includes any required encapsulation.

(2) If ACM is not failed or failing by itself but is removed in connection with repairs to failed or failing building components or systems, the asbestos abatement is considered an integral part of the restoration project and is therefore restoration.

b. Modernization.

(1) If ACM is not failed or failing but is removed in connection with alteration or construction work, the asbestos abatement is an integral part of the construction project and is therefore construction.

(2) If ACM is not failed or failing but is removed anyway as a matter of policy, such abatement is construction.

5-6. Equipment

a. Installed Building Equipment (IBE). Installed building equipment (real property) are items that are affixed or built into the facility and become an integral part of the facility. IBE is normally provided as a part of the construction contract, its costs are included as a funded construction cost, and funds come from CFMO accounts. Later additions or replacements of IBE are also construction and subject to statutory limits. IBE is not, however, subject to the expense/investment threshold of \$250,000. (For further details on this threshold, refer to DoD 7000.14-R, Volume 2A, para 010201.) Sustainment and restoration of IBE follows the classification guidance contained in the previous paragraphs. Examples of IBE follow. They are not complete nor do they always apply. Use common sense and let the definition rule.

(1) Amplifiers, splitters, couplers, etc. for government master antenna systems, electronic security systems, visual information systems, etc.

(2) Antenna (master antennas for non-paid subscriber entertainment television systems)

(3) Bead blast booth

(4) Bedside headwall units

(5) Benches (built-in)

(6) Bleachers (built-in)

(7) Boilers

(8) Bookcases (built-in)

(9) Cabinets (built-in)

(10) Cabling (as defined in the glossary) for telephone systems, computer networks, and other electronic networks, including electronic security/ detection systems

(11) Carpet (wall to wall)

(12) Chapel seating, baptisteries, altars, pulpits, communion rails and tables, and raised platforms (built-in)

(13) Central clock system (built-in)

(14) Closets

(15) Conduit, raceway, ductwork, riser system, manholes, poles, etc. associated with telephone systems, computer networks, and other electronic networks (as defined in the glossary)

(16) Desks and tables (built-in)

(17) Dishwasher equipment (built-in)

(18) Drinking water coolers (built-in)

- (19) Electrical (built-in electric fixtures and power utilization and distribution equipment)
- (20) Elevators and elevator doors
- (21) Energy management systems
- (22) Escalators
- (23) Exhaust systems
- (24) Fiber optic line drivers, multiplexers, interface devices, etc. (wired-in)
- (25) Fire alarm and detection systems
- (26) Fire extinguisher cabinets (built-in)
- (27) Food service equipment (built-in)
- (28) Gas fittings
- (29) Generators (built-in)
- (30) Hardware and fixtures for handicapped access
- (31) Heating, ventilating and air conditioning equipment and control systems
- (32) Hoists (crane and crane rails)
- (33) Incinerators
- (34) Key cabinets and safes (built-in)
- (35) Key control systems
- (36) Laboratory sinks, tables, and benches (built-in)
- (37) Lockers (built-in)
- (38) Meat cutting equipment (built-in)
- (39) Medical automated gas conveyors
- (40) Medical gas systems
- (41) Medical material handling systems
- (42) Paging systems
- (43) Paint booth
- (44) Panel boards
- (45) Plumbing
- (46) Pneumatic tube systems
- (47) Pot and pan washing equipment
- (48) Protective construction features
- (49) Radio and public address system (built-in)
- (50) Refrigeration equipment (built-in)
- (51) Safety Signs
- (52) Screens
- (53) Shelving and racks (built-in)
- (54) Signs and markings for boundaries, building room, and unit identification.
- (55) Sprinklers
- (56) Sterilizers (built-in)
- (57) Storage bins (built-in)
- (58) Storm sash and doors
- (59) Testing and diagnostic equipment dedicated to installed building equipment
- (60) Theater and auditorium railings
- (61) Theater stage and fire curtain
- (62) Traffic railings
- (63) Uninterruptible power supplies dedicated to installed building equipment
- (64) Utility monitoring and control systems (including real time clocks)
- (65) Vaults (built-in)
- (66) Vehicle and pedestrian traffic control and direction signs.
- (67) Venetian blinds and window shades
- (68) Wardrobes (fixed)
- (69) Waste disposers
- (70) Other similar non-severable items

b. Personal Property (Fixed). Personal property consists of capital equipment and other equipment of a movable nature that has been fixed in place or attached to real property, but which may be severed or removed from buildings without destroying the usefulness of the facilities. Personal property (fixed) is subject to the expense/investment threshold of \$250,000 and is to be procured with non-construction Operations and Maintenance National Guard or

Other Procurement Army funds, as appropriate. (For further details on this threshold, refer to DoD 7000.14-R, Volume 2A, para 010201.) The staff element which is the primary user of the item shall fund the procurement of the item. Examples follow. They are not complete nor do they always apply. Use common sense and let the definition rule.

- (1) Antennas and antenna towers for point-to-point communications
- (2) Blast furnaces
- (3) Blasters and roto blasters
- (4) Bleachers (portable)
- (5) Chain and tractor equipment
- (6) Conveyor systems
- (7) Demountable partitions
- (8) Dental Chairs and pedestal units
- (9) Dies
- (10) Dish antenna and receivers
- (11) Drills
- (12) Dryers
- (13) Educational television systems
- (14) Electronic repair laboratory and shop equipment
- (15) Electronic security equipment
- (16) Fixed facilities for radio and meteorological stations
- (17) Fixed navigational aids
- (18) Fixed target range systems
- (19) Forges
- (20) Frequency converters
- (21) Grinders
- (22) Heat treating machines
- (23) Intrusion detection systems and closed circuit TV sensors, monitors, cameras, consoles, and similar items
- (24) Jigs
- (25) Lathes
- (26) Laundry equipment
- (27) Medical and dental equipment
- (28) Metal plating equipment
- (29) Microscopes (fixed)
- (30) Molders
- (31) Organs
- (32) Ovens and furnaces
- (33) Paint sprayers
- (34) Photographic equipment
- (35) Power conditioning equipment and power filters
- (36) Presses
- (37) Prewired workstations
- (38) Printing presses and related equipment
- (39) Punches
- (40) Riveters
- (41) Scientific measuring instruments
- (42) Sewing machines
- (43) Sheet metal equipment
- (44) Stamping and cleaning equipment
- (45) Steam cleaning equipment
- (46) Stills
- (47) Stitchers
- (48) Telescopes
- (49) Testing equipment
- (50) Training equipment and simulators
- (51) Vats

- (52) Wash tanks
- (53) Welding machines
- (54) Woodworking equipment

c. Personal Property (Moveable). Equipment that is movable and not affixed as an integral part of the facility is generally accounted for as personal property rather than real property. Personal property (moveable) is subject to the expense/investment threshold of \$250,000 and is to be procured with non-construction Operations and Maintenance National Guard or Other Procurement Army funds, as appropriate. (For further details on this threshold, refer to DoD 7000.14-R, Volume 2A, para 010201.) The staff element which is the primary user of the item shall fund the procurement of the item. Examples follow. They are not complete nor do they always apply. Use common sense and let the definition rule.

(1) Automated data processing equipment, including personal computers, computer room equipment, visual information system equipment, etc.

- (2) Facsimile, teletype, and similar equipment items
- (3) Fiber optic line drivers, etc. that are not exterior to the walls and not affixed to a building
- (4) Filing cabinets and portable safes
- (5) Food service equipment (portable)
- (6) Furnishings, including rugs
- (7) Furniture (such as chairs, tables, beds, desks, and partitions)
- (8) Modems
- (9) Office machines
- (10) Photographic equipment (portable)
- (11) Reproduction, printing, and similar hard-copy developing and processing equipment
- (12) Shop equipment
- (13) Telephone instruments and telephone system equipment, including central office equipment
- (14) Testing and diagnostic equipment not dedicated to installed building equipment
- (15) Training aids and equipment, including simulators
- (16) Uninterruptible power supplies dedicated to personal property (fixed or moveable)
- (17) Voice/data switching equipment, including line and trunk cards
- (18) Wall clocks

d. Costs. Costs associated with installing personal property fixed and personal property moveable are "not construction" and will not be funded as a construction cost. The cost of this equipment and the cost of its procurement (including such items as transportation, packing, unpacking, assembly and attachment) are not construction and are funded from the owning property book holder, using the same appropriation that purchased the equipment when the installation is in an existing building or facility. That is, CFMO accounts fund these items only when they are supportable under NGB-AQ cooperative agreement directives. However, when installed in new facilities, the following items are construction and funded from the same appropriation funding the construction project:

(1) Installation of required shielding for electromagnetic radiating devices. Structural changes including new partitions related to installing shielding are construction.

(2) Installation of dedicated secondary utility work to connect the equipment to utility services within a facility. This work lies between the utilities primary entry or source within the structure and the equipment to be served.

(3) Installation of air conditioning under the following circumstances:

(a) To meet manufactures specifications for equipment temperature, humidity, particulate matter, and air circulation.

(b) In clean rooms installed in non-air conditioned spaces or when the building central system cannot meet the temperature and humidity requirements of the clean room operations.

(4) Installation of mechanical ventilation and separate exhaust systems when needed for personnel safety or for the proper functioning of the equipment as required by the manufacture.

(5) Installation of conduit and boxes for an intrusion detection equipment.

(6) Installation of specialty fire extinguishing systems for rooms that contain substantial amounts of automatic data processing equipment.

e. Uninterruptible Power Supply (UPS) System. A UPS system which occupies a specific area of a building and is structurally, mechanically and electrically affixed as an integral part of that facility is classified as real property and the system should be operated, maintained and repaired by the CFMO. A UPS which requires no structural

changes and is not affixed or built into a facility and can be moved and relocated without destroying the usefulness of the facility is classified as personal property.

5-7. Facility Replacement Value

a. A critical element requiring careful analysis on all SRM projects is the determination of the percentage of total repair cost or repair plus alteration cost for a combined undertaking to replacement value for a new facility. The replacement value of the affected facility generally being used is for a facility of the same type (permanent, semi-permanent, or temporary) and identical size (i.e., same square footage) at current construction standards and unit cost (with applicable adjustments) contained in the current DoD costing guide published by the Deputy Undersecretary of Defense for Installations. This cost comparison is to be used to determine whether the project exceeds 50 percent of the replacement value and must be submitted to NGB-ARI for approval. Note, in determining replacement value, cost of demolition, asbestos removal, site work, and historical considerations may be included if applicable.

b. TM 5-800-4 provides guidance and procedures for computing the replacement facility value. The following supplementation guidance is provided for use in conjunction with TM 5-800-4 to ensure uniform application when computing the replacement facility cost estimate.

(1) The replacement facility must be of the same square footage at current construction standards.

(2) Support costs will be based on the existing conditions at the site. Site cost can include utility work, paving, landscaping, clearing and site preparation and any other work which is done outside the building's five foot line.

(3) The use of standard Supervision, Inspection, and Overhead (SIOH) and contingency factors should be added.

(4) Additional cost for demolition and environmental restoration related to the siting of the project and any historical documentation cost may be added.

(5) Additional cost for temporary accommodations during construction may be added.

Chapter 6

Project Documentation

6-1. The NGB Form 420-R

a. Funding Authority/Limitations.

(1) The NGB Form 420-R is utilized for all construction projects greater than \$25,000 and up to the statutory threshold of \$750,000 (in Federal share) (\$1,500,000 if "solely to correct a deficiency that is life-threatening, health-threatening, or safety-threatening"). If a construction project is joint with a non-ARNG entity and complex, the CFMO shall document the project on DD Forms 1390/1391 to better delineate scope and the appropriate cost share of the parties to the construction.

(2) The NGB Form 420-R is utilized for all SRM projects (less construction) between \$100,000 and \$3,000,000 except that if the project is joint with a non-ARNG entity and complex, the CFMO shall document the project on DD Forms 1390/1391 to better delineate scope and the appropriate cost share of the parties to the construction.

(3) The NGB Form 420-R is utilized for all demolition projects greater than \$100,000 that are not associated with construction. As an exception, however, an NGB Form 420-R is required for all demolition projects on Federally owned land no matter what the project cost.

(4) The USPFO is the final approval authority for all projects up to these limits, except for land acquisition projects as stated in paragraph 6-4 below and except that the CFMO may approve all construction projects costing less than \$25,000 and all SRM (less construction) and demolition projects costing less than \$100,000. (As an exception, however, the USPFO is the approval authority for all demolition projects on Federally owned land no matter what the project cost.) No NGB Form 420-Rs are required for projects within CFMO approval authority provided that the CFMO maintains an auditable trail, satisfactory to the USPFO, on those projects.

(5) The CFMO may document any complex project on DD Forms 1390/1391.

b. The NGB Form 420-R is utilized to track current and future FP projects and to serve as an audit trail for all past projects. Currently "Facilities Center" is the database and report generator for the NGB Form 420-R. The form is required for all projects (except those listed in paragraph 6-1a above), no matter the funding source or project initiator, including troop construction projects. This includes all environmental activities that involve sustainment, restoration, and modernization (including construction).

c. Procedures.

(1) Projects are validated by the CFMO and then a NGB Form 420-R is initiated for every project within the authority and limitation of the USPFO (except those listed in paragraph 6-1a above).

(2) Each project will be entered in "Facilities Center" for programming.

(3) In approving the NGB Form 420-R, the USPFO shall verify that proper staffing has taken place within the State Military Department (to include environmental, safety, and occupational health), that the project complies with NEPA, that the CFMO has signed the form, that the CFMO has cited proper authority for the project and its scope, and that construction projects don't result in buildings that exceed by more than 10% the overall requirements for that facility type as shown on DA Forms 2369-2-R in the current Real Property Development Plan (unless the CFMO has provided an explanation, which should reference NG Pam 415-12) or that otherwise exceed NGB criteria as shown in NG Pam 415-12.

(4) Upon completion, the project completion date and final costs will be annotated on the NGB Form 420-R and in "Facilities Center." It is particularly important to enter capitalization costs accurately.

d. Instructions. For instructions on completing the NGB Form 420-R see Appendix C.

6-2. DD Forms 1390/1391

DD Forms 1390/1391 are required for repair projects over the USPFO's approval authority of \$3,000,000. They must be submitted to NGB-ARI. DD Forms 1390/1391 are also required for complex projects that are joint with a non-ARNG entity to better delineate scope and the appropriate cost share of the parties to the construction. The USPFO conveys approval for the latter type projects via a memorandum back to the CFMO. In this case, the CFMO shall sign the page that contains his/her name as the engineering point of contact for the project.

6-3. Act of Nature (AON) Damage Projects

a. AON damage projects are special types of repair or construction projects resulting from sudden, unexpected, major damage. The TAG must demonstrate that a project meets all of these criteria to receive required NGB-ARI approval that this constitutes an AON project and should receive an exception to the reimbursement rates authorized in the FISP and additional funds. Just because damage occurred or was noticed at the same time a storm or flood was taking place does not mean the proposed project is an AON project.

b. Due to the urgency of the requirements, execution shall be accomplished in the most expeditious manner. Accordingly, AON damage projects may be funded from either the operations and maintenance or military construction appropriations. Approval authority shall be according to that required for normal repair or construction projects funded under the selected fund source. The justification for AON damage projects shall include:

(1) Statements certified by the CFMO that the projects are, in fact, restorations or replacements of facilities that have been damaged by an AON.

(2) Statements certified by the CFMO that the scope is the minimum to satisfy current and projected missions.

(3) Statements certified by the CFMO that the quality of construction proposed is comparable with that originally damaged or destroyed; allowing, however, for improved materials and equipment to conform with current design practice and to minimize the possibility of future damage. It is essential that all AON damage project submissions include the above statements in the justification.

(4) Newspaper clippings relative to the AON causing the damage or photographs of the damaged areas should accompany the request for repairs or reconstruction.

(5) Requests shall be submitted within 30 calendar days of the incident to NGB-ARI.

6-4. Land Acquisition Projects

a. Land acquisition is a State responsibility, except that the State may request reimbursement for land acquisition projects that expand the size of the training center. (As an exception to this authority, the State may not request reimbursement if the purpose of the land acquisition is to procure land for readiness centers or for surface and air logistics and maintenance facilities.)

b. The approval authority for such projects is NGB-ARI, except that the USPFO is the approval authority for acquisition of less than 100 acres or \$100,000, whichever is greater.

c. In addition to the NGB Form 420-R, the CFMO shall document the project on an enclosed Real Estate Action Plan (as described in the ARNG Real Estate Manual) and both an NGB-ART approved Land Use Requirements Study (LURS) and an NGB-ART approved Analysis of Alternatives Study (AAS). AR 210-21 provides guidance on completion of both the LURS and the AAS.

6-5. Project Documentation and Approval Matrix

See Appendix B for the matrix.

Chapter 7 Contracting

7-1. General

This chapter provides a description for the Federal and State contracting procedures for FP projects. Projects that are task orders under a Job Order Contract (or similar contract vehicle) are not as elaborate in procedure.

7-2. Federal Contracting

a. Normally military construction contracting for SRM projects at Army National Guard facilities on State property is to be done by the State, using State procedures and State personnel. The USPFO may perform Federal contracting on State property only if: (1) the State law authorizes the Federal government to perform Federal contracting on State land and (2) the State Attorney General provides a written opinion to that effect. Unless your State has this authorization and a written opinion from its State Attorney General, Federal contracting can only be utilized on Federal land. However, the State is not required to use Federal contracting for projects on Federal land.

b. The most essential element of successful Federal contracting is the relationship between the CFMO and the contracting officer. The contracting officer is the resident expert on the Federal Acquisition Regulation (FAR), which outlines the guidelines and limitations for federal contracting.

c. The submission process for Federal contracting for maintenance/repair or construction projects is:

(1) Project Approval Form. This is a NGB Form 420-R or DD Forms 1390/1391.
(2) Detailed Independent Government Estimate (the estimated cost for the entire project). It must be signed and dated by the person who prepared the estimate.

(3) Proposed Synopsis of the Project. This is a brief statement that describes the salient characteristics of the project, type of construction, estimated square footage of the project, quantities, special nature of the work, HVAC systems and any other information that would be necessary or helpful for a contractor to determine an interest in bidding the project.

(4) Performance Period. This is the estimated number of days it should take the contractor to complete the work from Notice to Proceed to final completion.

(5) Advertisement. If the project is to be acquired under an Invitation For Bid (IFB) and the estimated cost of the project will exceed \$25,000, the project must be synopsized in the Commerce Business Daily (CBD) at least 15 calendar days prior to issuing the formal solicitation (IFB).

(6) Acquisition Plan. Jointly develop the acquisition plan between the CFMO and the Contracting Officer. This includes pricing, options, bid items, additive bid items, priority of additive bid items, contract type (Multiple Award Task Order Contract, Job Order Contract, Invitation For Bid, Request For Proposal etc.).

(7) Plans and Specifications. Submit a copy of the plans and specifications for the project. (Development of Division I of the specifications must be jointly reviewed and coordinated with the Contracting Officer early in the project development/design phase.)

(8) Liquidated Damages. The estimate of liquidated damages that would be assessed against the contractor if the contract were not completed within the required performance period. Consideration should be given to the cost of any facilities that must be rented or leased on an extended period until the project is completed and any cost the government would incur if the project is not completed with the performance period. This can not be blanket amount but must be calculated for every project. The contracting office will normally have a liquidated damages worksheet to calculate this amount.

(9) Special scheduling requirements (e.g., Critical Path Method of scheduling, if applicable).

(10) Consolidated list of material submittals (i.e., numerical list of materials identified by specification section that the Government wants to approve prior to use on the project). It is customary that the Architect-Engineer (A-E) prepares this list during the design process.

(11) Funding document (DA Form 3953) certifying that funds are available for the project and will be committed to the project until bid opening report is submitted. (The document may not be required on Task Order Contracts if funds are not currently available to the activity for that project. A written statement should be made to the contracting officer that funds are not currently available for the project, but there is a high likelihood that funds will become available by a certain date.)

(12) Contracting Officer's Technical Representative (COTR). Identify to the Contracting Officer who will be the COTR on the project.

(13) Performance Requirements. Identify any special past performance requirements the contractor must have in order to successfully perform the contract. (May not be applicable to all projects.)

(14) Single (Sole) Source Items. Written justification for a specified single source item(s) that are referenced in the specifications and/or drawings.

(15) Material Qualifications. The Contracting Officer must be advised in writing of any submittal requirements the construction contractor is required by the specifications to submit with his bid.

7-3. State Contracting

a. State contracting procedures vary from State to State. However several of the items required for Federal contracting also apply in most States. Contact your State Contracting Officer for specific requirements.

b. The items normally required for State contracting are:

(1) Project approval. What authorizes you to contract for this construction, maintenance or repair project (e.g. approved budget, legislative approval, Adjutant General approval, NGB Form 420-R and/or DD Forms 1390/91).

(2) Estimated project cost. This is a detailed government estimate of all project costs.

(3) Synopsis of the project. This is a statement about the characteristics of the project, the type of construction or repair, estimated square footage or other quantities of the project, mechanical systems and any other items that would necessary for a contractor to determine an interest in the project.

(4) Performance Period. The estimated number of days it should take the contractor to complete the work from Notice to Proceed to final completion.

(5) Liquidated Damages. The estimated amount of liquidated damages that would be assessed against a contractor if the contract is not completed within the performance period.

(6) Material Qualifications. Any material submittal requirements that must have approval for their use prior to bid opening.

(7) Fund Certification. Certification that funding is available to bid and award a contract.

(8) Plans and Specifications. The contracting office may require a copy of the plans and specifications.

(9) Bid and Contract Requirements. Any special bid or contract requirements your State may require, usually these items are found in the General Conditions or Supplemental General Conditions of the project. These could include any mandatory Federal provisions for Federally-supported funded State contracts.

c. All State construction and repair contracts must include the applicable clauses from Article VIII of the Master Cooperative Agreement. These clauses do not include any reference to the Davis-Bacon Act.

7-4. Contracting for Architect-Engineering Services

a. Types of Architect-Engineering (A-E) Services.

(1) Type A. Field surveys and investigations required to obtain data that is essential to the performance of Type B services and that are not available from Federal or State government resources. These surveys and investigations may include topographical surveys, soil borings, soils, chemical and mechanical surveys and investigations, determination of utility locations and capacities, and similar fact-finding investigations, technical studies concept cost estimates, or concept development studies.

(2) Type B. Services provide production of complete designs, including preliminary and final plans, outline and final specifications, design analyses, and preliminary and final cost estimates.

(3) Type C. Provides construction supervision and inspection services, testing, shop drawing review, and management services.

b. The CFMO shall determine whether to use in-house resources or to contract for A-E services for FP projects.

c. Type A and Type B A-E costs do not count against FP project limitations but are part of the total project cost reported in "Facilities Center." (Type C services are considered part of project execution and count against regulatory and statutory project limitations.) They will be charged to the same Army Management Structure Code (AMSCO) as the project. However, A-E services and studies associated with planning, site selection, and generic (not specific) project requirements determination are not reported against a specific project in "Facilities Center" and are charged to the appropriate Facilities Engineering Services AMSCO.

d. The CFMO may use the NGB Uniform Standards for the Payment of Architect-Engineering Services fee schedule (See Appendix E), a State fee schedule, or a negotiated fixed fee contract. Normally, the fees for a State fee schedule or a fixed fee contract should not exceed 3% for Type A and 3% for Type C services, and must not

exceed 6% for Type B services. The percentages are calculated against the estimated project cost and apply no matter what the source of funding or type of sustainment, restoration, or modernization project being executed.

e. CFMOs may use Federally contracted A-E services for projects on Federal land or they may use State procedures. Firm Fixed Price and Indefinite Delivery/Indefinite Quantity (IDIQ) are available through the USPFO contracting office for use on Federal property.

f. The selection process for Federally contracted A-E services is similar for both Firm Fixed Price and IDIQ contracts. See Appendix E for the Federal A-E selection process. The following items are required to be submitted to the contracting officer:

(1) Statement of Work (SOW). A SOW is required to identify project requirements for A-E services. Use the description of work from NGB Form 420-R or DD Forms 1390/91.

(2) Government Cost Estimate is a detailed cost estimate of A-E services. It must be prepared, dated and signed by the CFMO and submitted to the contracting office.

(3) CBD Synopsis. The CBD synopsis is a critical event. It serves as the solicitation for A-E contract services. As such, it must identify to the public what A-E services are needed. The CFMO must provide to the contracting officer a brief general statement of all key elements to publish in the CBD for those elements to be included in the resultant A-E service contract. These key elements include:

(a) Project title and a brief description of major facility features or project components sufficient to convey the span of A-E special disciplines/skills that may be required. Do not use military abbreviations. (For an A-E IDIQ solicitation, list the typical types of projects that are expected to be accomplished.)

(b) Location of project site. (For an A-E IDIQ solicitation, list the geographic area to which the solicitation would apply.)

(c) Project construction cost estimate in which the contracting officer will publish the cost range of the intended project. (For an A-E IDIQ solicitation, list task order funding limitations and number of option years.)

(d) Types of A-E services required, such as investigative Type A, design Type B, and construction administration Type C. Code and criteria reviews may be included as an option. The option for Type C services will not be exercised until the pertinent construction contract has been awarded.

(e) Funding document for the estimated A-E fees will be submitted to the contracting officer. This is a DA Form 3953. The account classification will be from the appropriate FP AMSCO.

(f) Selection criteria. The CFMO will assist the contracting officer in tailoring A-E selection criteria in accordance with the current FAR and its supplements (including the DoD supplement, DFARS) and provide, within the context of the professional qualifications rating criteria, the A-E special disciplines considered important to the project and list them in the order of importance they will be given in the A-E selection process.

(g) Contracts over \$25,000. For each contract over \$25,000, the contracting officer is required by FAR 36.604 to prepare an A-E performance evaluation report. Ordinarily, the evaluating official should be the person responsible for monitoring contract performance. The CFMO is relied upon to provide contracting officer support to this end. DFARS 236.604 requires a separate report by the contracting officer after the actual construction of the project. The evaluation official should be the person most familiar with the A-E's performance.

(h) A Criteria Review Conference with the selected A-E firm, the CFMO, the contracting officer, and the user will be held prior to fee negotiation and contract award. This meeting will be conducted by the contracting officer or CFMO to clarify for the A-E firm the design criteria in sufficient detail for the A-E to prepare a fee proposal for doing the project, to understand the project scope and any special requirements that may not be obvious, to explore peculiarities of the site or local conditions, and to establish a professional relationship and good lines of communications among the A-E, contracting officer, and the CFMO. The conference also permits discussion of design review and approval procedures and their impact on timely performance of work.

g. A-E Indefinite Delivery Services.

(1) Contracts may be established for one base year plus an additional 1-year option period. Contracts with up to four additional option years require approval of the Office of the Principal Assistant Responsible for Contracting (NGB-AQ).

(2) Where work load dictates, CFMOs may have more than one A-E Indefinite Delivery contract, preferably overlapping. The contract shall support geographically separated units under a CFMO's purview. When more than one A-E IDIQ contract is active/available, the CFMO shall document by written memo to the contracting officer which A-E IDIQ contractor is ranked #1 for a particular requirement. Among the considerations to be addressed in the memo are:

(a) That the requirement is within scope of the IDIQ contract.

(b) That the most technically qualified IDIQ contractor is being chosen.

(c) The volume of work the IDIQ contractor has (i.e., does the contractor have the capacity for this requirement?)

(d) That the independent government estimate addresses travel cost for firm not near work site.

(e) That fees to be negotiated shall be based on level of effort by the A-E firm.

(3) Contracts for Federal A-E Services shall be issued by the USPFO. Dollar thresholds and maximum dollar amounts per delivery order are established in the FAR and the National Guard Bureau supplement to the FAR. Current amounts are \$300,000 per delivery order and \$1,500,000 total per year.

h. A-E IDIQ contracts, where projected workloads exist, should be established for a geographic area.

i. Changes to A-E Contracts. Requests for changes to A-E contracts shall be sent to the USPFO for approval, along with justification and an estimate of additional A-E fees. When approved, notification of request for funding action will be sent along with the approval to change the A-E's contract. The contracting officer may not issue a change order unless he has in his/her possession a DA Form 3953.

Chapter 8 Federally Reimbursed State Employees

8-1. General

a. The basis for determining the number and type of State employees authorized Federal reimbursement is the Real Property Operations and Maintenance Personnel Allocation Standard (FP-PAS).

b. FP-PAS applies only to the FP, not to any other NGB program.

c. FP-PAS is the automated system developed by NGB and the States, Commonwealths, and Territories to identify authorized manpower requirements for Federally reimbursed FP State or contract employees. It standardizes the maximum number and types of employees required to provide the necessary manpower for engineering, maintenance, and administrative functions at the Construction and Facilities Management Office, training sites, and logistical facilities to support Army National Guard real property services and sustainment, restoration, and modernization requirements.

d. FP-PAS is intended to provide authorizations for trades workers, management and supervision of trades workers, management of contract services, and construction and facility management support services. FP-PAS is not a replacement for Federal Technician requirements, which are inherently governmental and serve to provide for Federal oversight of the Federal programs. It provides the States with a flexible, effective, and decentralized personnel system to support those requirements as defined in the terms and conditions of Appendix 1 to the Master Cooperative Agreement.

e. No FP-PAS position has funds directly linked to it. The Construction and Facilities Management Officer shall allocate funds from within the FP Annual Funding Guidance among personnel and other requirements authorized Federal reimbursement and determine which positions to fund and which positions to leave unfunded.

f. Environmental State employee manning will be determined through the Personnel Allocation Model provided by NGB-ARE. States are authorized to hire at 100% of validated requirements.

8-2. Types of FP-PAS Employees

a. Trades Workers. Employees who perform skilled tasks associated with facility maintenance and repair.

b. Engineering Administrative Employees. Employees whose duties include, but are not limited to, supervision and administration of Appendix 1 of the Master Cooperative Agreement, rental and service contracts, and maintenance and repair and/or minor construction projects; or whose duties include, but are not limited to, custodial services or supply, accounting, and administrative support of Appendix 1 of the Master Cooperative Agreement.

c. Construction and Facilities Management Office Employees. Employees whose duties in or in direct support of the Construction and Facilities Management Office include, but are not limited to, the planning, coordinating, budgeting, designing, programming, inspecting, scheduling, and clerical support for construction and maintenance and repair projects throughout the State in support of Appendix 1 of the Master Cooperative Agreement.

d. Firefighters. Employees whose duties are the protection of life and real property from the dangers of fire.

8-3. Calculating Allowable Employees

a. Full-Time Equivalents. Personnel positions as validated by FP-PAS are Full-Time Equivalents (FTE) and are based on a work year of 2,080 man-hours with a productive work year of 1,740 man-hours. It is the discretion of the TAG as to how the positions and the people who fill them are utilized. However, the total number of reimbursed FTE for each job title cannot exceed the number validated by FP-PAS for that job site.

b. Part-time Employees. Part-time employees may be hired so long as the productive man-hour totals do not exceed the authorized requirements. For example, the approved FP-PAS document authorizes 10 full-time carpenters x 1,740 man-hours = 17,400 man hours per year. Eight (8) full-time carpenters hired equal 13,920 man-hours. 17,400 minus 13,920 equal 3,480 man-hours available to hire temporary part-time, or seasonal carpenters for the remainder of the current fiscal year.

c. The calculation of authorizations is an automated NGB-ARI program. Questions concerning formulas and algorithms used for calculating authorizations should be forwarded to NGB-ARI.

8-4. Basics of Administration

a. There is a separate FP-PAS electronic document for each State training site, logistical facilities Statewide, and the Construction and Facilities Management Office.

b. Each document establishes FTE limits for each authorized job title. As an exception, the document for the Construction and Facilities Management Office sets overall limits for the office, and the CFMO allocates the requirements by job title.

c. The CFMO submits FP-PAS concurrently with the annual State FP operating budget. Prior to submission, the CFMO conducts an annual review of FP-PAS by verifying and, if necessary, modifying data in the automated system.

d. NGB-ARI's approval of this submission becomes the basis for determining the maximum FTEs by position title and location.

e. A single person may be a fraction of an FTE. This can occur if the person is only a part-time employee, only supports the FP for a small part of the year, or fills multiple job titles at one or more locations (or a single job title at multiple locations).

f. For people who fill multiple job titles at one or more locations (or a single job title at multiple locations), the rate of reimbursement is based on percentage of time spent working on 100% facilities plus percentage on 75% facilities plus percentage on non-supported facilities.

g. In some States, Construction and Facilities Management Office FP-PAS employees may include the following two groups of people. In both instances, they must be recorded in both FP-PAS and the annual FP budget submission. These individuals may be reimbursed for training, travel, and other authorized activities in so far as these activities support Appendix 1 of the Master Cooperative Agreement.

(1) Individuals who work in other parts of the State Military Department if they are part of the Centralized Personnel Plan (as discussed in NGB-AQ cooperative agreement directives) and otherwise fit the criteria of authorized FP-PAS. These are usually fractional FTEs.

(2) Individuals who normally are not Federally reimbursed but support Appendix 1 of the Master Cooperative Agreement on an occasional basis, almost always for less than a month out of a year.

h. A State may choose one of three methods of compensating its FP-PAS employees: State civilian personnel payments for salary and benefits of a like State civil service position in that geographical area; military technician salary and benefits of an equivalent grade and series; or private sector employee salary and benefits for an equivalent job rating in that geographic area.

8-5. Limitations on Use

a. The CFMO shall try to allocate no more than 55 percent of its Annual Funding Guidance (AFG) to employee costs. The CFMO must receive a waiver from NGB-ARI to exceed this amount.

b. FP-PAS employees, in their status as FP-PAS employees, may not operate ranges, dining facilities, Non-Commissioned Officers or Officers Clubs, communication facilities, billeting operations or any other activity or facility that does not support the real property infrastructure.

8-6. List of FP-PAS Positions

At Appendix D you will find generic position descriptions for FP-PAS positions which may be allocated to the Construction and Facilities Management Office (CFMO), training sites, and Statewide logistics facilities. These position descriptions are not all-inclusive, but provide general guidance as to employee duties.

Appendix A**References**

Most of these references are available electronically as listed below:

1. United States Code: www4.law.cornell.edu/uscode/ or www.access.gpo.gov/congress/cong013.html or <http://uscode.house.gov/usc.htm>.
2. Code of Federal Regulations: www.access.gpo.gov/nara/cfr/cfr-retrieve.html#page1.
3. Executive Orders: www.nara.gov/fedreg/eo.html. However, this reference, except for recent executive orders, only provides a summary and citations to the Federal Register. The address of the Federal Register is www.access.gpo.gov/nara/index.html.
4. Office of Management and Budget Circulars: www.whitehouse.gov/omb/circulars/.
5. Acquisition Regulations: www.arnet.gov/far/ or www.acq.osd.mil/dp/dars/dfars.html or <http://acqnet.sarda.army.mil/library/zpafar.htm>.
6. Department of Defense Publications: www.dtic.mil/whs/directives/.
7. Department of Defense Financial Management Regulation: www.dtic.mil/comptroller/fmr/.
8. DFAS Publications: www.asafm.army.mil/secretariat/document/dfas37-100/dfas37-100.asp and <https://dfas4dod.dfas.mil/centers/dfasin/library/ar37-1/>.
9. Army Regulations and Pamphlets: www.usapa.army.mil/.
10. Technical Manuals: www.usace.army.mil/inet/usace-docs/armytm/.
11. National Guard Regulations and Pamphlets: www.ngbpd.c.ngb.army.mil/.

Section I**Required Publications****AR 210-21**

Army Ranges and Training Land Program. (Cited in para 6-4c.)

AR 420-18

Facility Engineering Materials, Equipment, and Relocatable Building Management. (Cited in para 4-3d(6).)

Army Supplement to the Federal Acquisition Regulation

(Cited in para E-1b.)

The ARNG Real Estate Manual. (Cited in para 6-4c.)

DA Pam 415-28

Guide to Army Real Property Codes. (Cited in para 4-4j.)

Defense Federal Acquisition Regulation Supplement (DFARS)

(Cited in paras 7-4f(3)(f), 7-4f(3)(g), and E-1b.)

DFAS-IN Regulation 37-1

Finance and Accounting Policy Implementation. (Cited in para 4-2a.)

DoD 7000.14-R, Volume 2A

Department of Defense Financial Management Regulation (Budget Formulation and Presentation). (Cited in paras 4-2c(3), 5-6a, 5-6b, and 5-6c.)

DoD 7000.14-R, Volume 14

Department of Defense Financial Management Regulation (Administrative Control of Funds And Antideficiency Act Violations). (Cited in para 4-2a.)

DoD 7000.14-R, Volume 15

Department of Defense Financial Management Regulation (Security Assistance Policies and Procedures). (Cited in para 4-5e(2).)

Federal Acquisition Regulation (FAR)

(Cited in paras 7-2b, 7-4f(3)(f), 7-4f(3)(g), 7-4g(3), E-1b, E-4a, E-4e(1), E-4e(3), and E-6g.)

Master Cooperative Agreement, Appendix 1

(Cited in paras 2-1b, 2-5d, 2-7c, 2-7e(6), 2-7e(7), 8-2c, and 8-4g.)

Military Construction Cooperative Agreement

(Cited in para 7-4d.)

NGB Supplement to the Federal Acquisition Regulation

(Cited in para 7-4g(3).)

NG Pam 415-12

Army National Guard Facilities Allowances. (Cited in paras 2-6c, 6-1a, 6-1c(3), and C-1.)

NGR 415-5

Army National Guard Military Construction Program Development and Execution. (Cited in para 1-4c.)

NGR 415-10

Army National Guard Facilities Construction. (Cited in para 1-4d.)

NGR 420-10

Construction and Facilities Management Office Operations. (Cited in paras 1-4b, 4-4a, and 4-5a.)

TM 5-800-4

Programming Cost Estimates for Military Construction. (Cited in para 5-7b.)

10 U.S.C. §§2801-2802

Military Construction. (Cited in para 4-4a.)

10 U.S.C. §18233a(b)

Facilities for Reserve Components, Limitation on Certain Projects. (Cited in paras 4-2b and 4-4a.)

10 U.S.C. §18236

Facilities for Reserve Components, Contributions to States; other use permitted by States. (Cited in para 2-6b(3).)

31 U.S.C. §§1301, 1341

Appropriations, Application, and Limitations on expending and obligating amounts. (Cited in para 4-2a.)

31 U.S.C. §§1501, 1502, 1571

Appropriation Accounting, Documentary evidence required for Government obligations, Balances available, and Prohibited obligations and expenditures. (Cited in para 4-2a.)

Section II**Related Publications****AR 1-33**

Memorial Programs

AR 11-2

Management Control

AR 11-18

The Cost and Economic Analysis Program

AR 11-27

Army Energy Program

AR 37-60

Pricing for Materials and Services

AR 40-5

Preventive Medicine

AR 40-61

Medical Logistics Policy and Procedures

AR 55-80

Highways for National Defense

AR 190-13

The Army Physical Security Program

AR 190-51

Security Of Unclassified Army Property (Sensitive And Nonsensitive)

AR 200-1

Environmental Protection and Enhancement

AR 200-2

Environmental Effects of Army Actions

AR 200-3

Natural Resources

AR 200-4

Cultural Resources Management

AR 200-5

Pest Management

AR 210-14

The Army Installations Status Report Program

AR 215-1

Morale, Welfare, and Recreation Activities and Nonappropriated Fund Instrumentalities.

AR 350-4

Integrated Training Area Management

AR 385-10

The Army Safety Program

AR 385-16

System Safety Engineering and Management

AR 385-63

Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat

AR 385-64

US Army Explosives Safety Program

AR 405-10

Acquisition of Real Property and Interests Therein

AR 405-45

Inventory of Army Military Real Property

AR 405-70

Utilization of Real Property

AR 405-80

Management of Title and Granting Use of Real Property

AR 405-90

Disposal of Real Estate

AR 415-15

Army Military Construction Program Development and Execution

AR 415-28

Real Property Category Codes

AR 415-32

Engineer Troop Unit Construction in Connection with Training Activities

AR 420-10

Management of Installation Directorates of Public Works

AR 420-49

Utilities Services

AR 420-70

Buildings and Structures

AR 420-72

Transportation Infrastructure and Dams

AR 420-90

Fire Protection

AR 735-5

Policies and Procedures for Property Accountability

ASHRAE Standard 90.1-1999

Energy Standard for Buildings Except Low-Rise Residential Buildings

29 CFR Part 1900.2 – Part 1925.3

Occupational Safety and Health Administration, Department of Labor

31 CFR Part 205

Rules and Procedures for Funds Transfers

32 CFR Part 33

Uniform Administrative Requirements For Grants And Cooperative Agreements To State And Local Governments

36 CFR Part 800

Protection of Historic Properties

DA Energy Resources Management Plan.

(This publication may be obtained from the Commander, U.S. Army Logistics Evaluation Agency, ATTN: LOEA-PL, New Cumberland, PA 17070-5007.)

DA Pam 385-64

Ammunition and Explosive Safety Standards

DA Pam 405-45

Real Property Inventory Management

DA Pam 415-3

Economic Analysis: Description and Methods

DA Pam 420-7

Natural Resources - Land, Forest, and Wildlife Management

DA Pam 420-11

Project Definition and Work Classification

Deputy Secretary of Defense Memorandum 13 September 1990 (amended 1 December 1994)

Land Acquisition in the United States

DFAS Manual 37-100-XX

The Army Management Structure

DoDD 1225.7

Reserve Component Facilities Programs and Unit Stationing

DoDD 3210.6

Defense Grant and Agreement Regulatory System

DoDD 6055.9

DoD Explosives Safety Board (DDESB) And DoD Component Explosives Safety Responsibilities

DoDD 7600.10

Audits of State and Local Governments, Institutions of Higher Education, and Other Nonprofit Institutions

DoDI 1225.8

Programs and Procedures for Reserve Component Facilities Programs and Unit Stationing

DoDI 4000.19

Interservice and Intragovernmental Support

Executive Order 11988

Flood Plain Management

Executive Order 12056

Federal Compliance with Pollution Prevention and Emergency Planning-Community Right to Know Acts

Executive Order 12088

Federal Compliance with Pollution Control Standards

Executive Order 12873

Federal Acquisition, Recycling, and Waste Prevention

Executive Order 13123

Greening the Government Through Efficient Energy Management

International Energy Conservation Code

ISO 14001

Environmental Management Systems – Specification with Guidance for Use

NG Pam 25-1

Training Site General Information

NG Pam 385-16

Guidelines for Converting Indoor Firing Ranges to Other Uses

NGR 5-3

ARNG Training Centers

NGR 11-27

ARNG Energy Conservation Plan

NGR 130-6

United States Property and Fiscal Officer: Appointment, Duties and Responsibilities

NGR 200-3

State and Federal Environmental Responsibilities

NGR 335-10

Army National Guard Management Control System

NGR 385-10

Army National Guard Safety and Occupational Health Program

NGR 385-15

Policy, Responsibilities, and Procedures for Inspection/Evaluation, and Use of ARNG Indoor Ranges

NGR 405-80

Army National Guard Real Estate Program

OMB Circular A-87

Cost Principles for State, Local, and Indian Tribal Governments

OMB Circular A-89

Federal Domestic Assistance Program Information

OMB Circular A-102

Grants and Cooperative Agreements with State and Local Governments

OMB Circular A-123

Internal Control Systems

OMB Circular A-133

Audits of States, Local Governments, and Non-Profit Organizations

TM 5-634

Solid Waste Management

TM 5-654

Gas Distribution Systems Operation Maintenance

TM 5-683

Electrical Interior Facilities

TM 5-684

Electrical Exterior Facilities

TM 5-785

Engineering Weather Data

TM 5-815-2

Utility Monitoring and Control Systems

TM 5-853-1

Security Engineering: Project Development

Uniform Building Code

10 U.S.C. §2306

Kinds of Contracts

10 U.S.C. Chapter 159

Real Property

10 U.S.C. Chapter 169

Military Construction and Military Family Housing

10 U.S.C. Chapter 1803

Facilities for Reserve Components

16 U.S.C. §470 et. seq.

National Historic Preservation Act

31 U.S.C. Chapter 65

Intergovernmental Cooperation

31 U.S.C. Chapter 75

Requirements for Single Audits

40 U.S.C. §541 et seq

Selection of Architects and Engineers

42 U.S.C. §§4321-4370a

National Environmental Policy Act

Section III

Prescribed Forms

This section contains no entries.

Section IV
Referenced Forms

DA Form 11-2-R
Management Control Evaluation Certification Statement

DA Form 2369-2-R
Tabulation of Existing and Required Facilities – Facilities Requirements

DA Form 3953
Purchase Request and Commitment

DD Form 1390
FY__ Military Construction Program

DD Form 1391
FY __ Military Construction Project Data

NGB Form 420-R
OMNG Project Request

SF 254
Architect-Engineer & Related Services Questionnaire

SF 255
Architect-Engineer & Related Services Questionnaire for Specific Project

Appendix B

Project Documentation and Approval Matrix

Action	CFMO	USPFO	NGB	ASA (I&E)	Congress
Constr <\$25K	X				
\$25K <= Constr <= \$750K		X			
\$750K <= Constr <= \$1.5M (only if life/health/safety)		X			
SRM < \$100K	X				
\$100K <= SRM <= \$3M		X			
\$3M <= SRM <= \$7.5M				X	
SRM > \$7.5M					X
Act of Nature Projects			X		

Note 1: SRM = Sustainment, Restoration, and Modernization that is not Construction

Note 2: Constr = Operations and Maintenance Minor Construction

Note 3: NGR Form 420-R only required for projects within USPFO approval authority and Act of Nature projects.

Note 4: DD Form 1390/1391 only required for projects requiring approval by ASA (I&E) or Congress or if complex construction joint with a non-ARNG entity.

Appendix C
NGB Form 420-R Preparation

C-1. Instructions (by block)

FY - Refers to the fiscal year the project is to be initiated.

DATE - Date form is initiated

1. Project Title - Use the project title from "Facilities Center." Title must clearly identify the work to be completed.
2. Project Number - Use the project number "Facilities Center."
3. Location - Include the city and the State as listed in the FISP.
4. Installation - Use the installation name and number from the FISP.
5. Criteria - List the source document (including paragraph number) that authorizes you to execute the project. For non-construction projects, be sure to include references to NGB-AQ cooperative agreement directives and the Installation Status Report. Check the block only if the project will exceed the criteria in NG Pam 415-12 or will exceed (for buildings only) by more than 10% the requirements shown on DA Forms 2369-2-R in the current Real Property Development Plan. Justify any exceptions in block 11.
6. Program of the Project - Check whether the project is for sustainment, restoration, modernization, or demolition (as defined in the glossary). If more than one SRM category applies, check all that apply, and on the reverse of the form, show the cost breakout.
7. Activity of the Project - Check whether you will be doing maintenance, repair, construction, or demolition (not associated with construction). If this is a land acquisition construction project, attach a copy of the Real Estate Action Plan. If more than one activity applies, check all that apply, and on the reverse of the form, show the breakout.
8. Facilities Inventory and Support Plan (FISP) Data - Enter the appropriate FISP data for the facility. If the facility is not existing or has not been included on the FISP, enter as much information as possible. This information is all contained in the real property data base. Your real property clerk can provide help in getting this information. When a project is for more than one installation (i.e., Armory Roof Repair - various locations) use the back of the form to identify each installation's FISP data. Also identify costs for each facility.
9. Project Description - Describe the project in as much detail as required and in plain language. Include the scope of the project, single line drawings, detailed cost estimate and any attachments necessary to clearly define the project. Scope should include at a minimum the project area (SF, LF, CF, etc.); major components to include electrical, mechanical and structural; and any specialty items. Use the reverse side or additional pages as necessary. Remember, *"You may understand and know the project but the person after you will not if it is not clearly described."*
10. Justification - Why is the project needed? Will the project solve safety, environmental, and/or health problems? Indicate where all construction projects over \$100,000 and all restoration and modernization projects over \$300,000 fit within the most current approved Real Property Development Plan for your State. For construction projects that require an exception to criteria, cogently justify the exception. Extract from the plan to show that buildings you are constructing do not exceed by more than 10% the requirements shown on DA Forms 2369-2-R in the current Real Property Development Plan. If you are or are otherwise proposing an exception to criteria, attach an explanation, which should include calculations from NG Pam 415-12.
11. To be accomplished by - Select the appropriate type of method or funding that will be used to accomplish the project. You may check more than one box.

12. Estimated Cost. Break the cost down by Federal and State shares.
13. AMSCO - Use the appropriate SRM or demolition AMSCO(s) for the facility type. For operations and maintenance construction there is only one AMSCO to be used (132G76.L1). For demolition not associated with construction, there is also only one AMSCO to be used (132G93.00). Note: The Support Code under FISP DATA guides you to the Federal share of the estimated cost.
14. The project qualifies/does not qualify for a categorical exclusion IAW AR 200-2 Environmental Effect of Army Action. A Record of Environmental Consideration is not required/is enclosed. - The Environmental Protection Specialist (EPS) determines and certifies whether or not the project meets the requirements to exclude it from requiring a Record of Environmental Consideration (REC). If one is required, then the EPS prepares one and the CFMO encloses it. In making his/her certification, the EPS lines through the two phrases that do not apply.
15. Supplemental Certification (Optional) - The project manager can certify the project as completed or as valid. However, in the case of projects funded with other than FP funds, including troop labor projects, then the block becomes mandatory and the appropriate funding official must sign in the block (e.g., EPS, Plans, Operations and Training Officer, etc.)
16. Certification - CFMO reviews and certifies that the project requirements and all entries are complete and accurate.
17. USPFO Approval - The USPFO signs his/her approval to the project and agreement to use Federal funds for the project. If the USPFO disapproves, he/she shall return the form unsigned.

C-2. Sample of Form

The following two pages show the front and back of a blank form.

OMNG PROJECT REQUEST Proponent is NGB-ARI.		DATE _____
FY _____		
1. PROJECT _____		2. PROJECT NUMBER _____
3. LOCATION (City and State) _____		4. INSTALLATION (Name and Number) _____
5. CRITERIA: _____		<input type="checkbox"/> Exception to Criteria (justification in block 10)
6. PROGRAM OF PROJECT <input type="checkbox"/> Sustainment <input type="checkbox"/> Restoration <input type="checkbox"/> Modernization <input type="checkbox"/> Demolition		9. PROJECT DESCRIPTION: (Include single line drawing; use reverse if necessary)
7. ACTIVITY OF PROJECT <input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Construction <input type="checkbox"/> Demolition		
8. FISP DATA Facility _____ Support Code _____ Cat. Code _____ Type Facility _____		
11. TO BE ACCOMPLISHED BY: <input type="checkbox"/> Contract <input type="checkbox"/> Training Project <input type="checkbox"/> Time and Materials <input type="checkbox"/> Gvt. Furnished		
12. ESTIMATED COST Federal _____ State _____ Other _____ See back page for details and cost estimation.		10. JUSTIFICATION: (Use reverse side if necessary)
13. AMSCO _____		
14. This project <input type="checkbox"/> qualifies <input type="checkbox"/> does not qualify for a categorical exclusion IAW AR 200-2 Environmental Effects of Army Action. A record of Environmental Consideration is <input type="checkbox"/> not required <input type="checkbox"/> is attached.		
NAME _____		GRADE _____
		EPS (only) _____
		SIGNATURE _____
15. SUPPLEMENTAL CERTIFICATION: (Optional)		
NAME _____		GRADE _____
		TITLE _____
		SIGNATURE _____
16. CERTIFICATION: I certify that all entries are accurate and complete and that all Federal, State, and local statutory requirements		
NAME _____		GRADE _____
		CFMO (only) _____
		SIGNATURE _____
17. USPFO APPROVAL:		
NAME _____		GRADE _____
		USPFO (only) _____
		SIGNATURE _____

NGB Form 420-R, DEC 02, (EF), (Adobe v 4.0)

(REPLACES NGB FORM 420-R, DATED OCT 96, WHICH IS OBSOLETE)
Approval and Acceptance Documentation must be kept with this form.

9. PROJECT DESCRIPTION: (continued)

10. JUSTIFICATION: (continued)

Appendix D FP-PAS Position List

D-1. General

a. This appendix contains brief position descriptions for all position titles potentially required for each of the three types of FP-PAS documents.

(1) Training Center. A State generates a separate FP-PAS document for each training site it has on the FISP.

(2) Statewide Logistics Facilities. A State generates a single FP-PAS document that combines requirements for all logistics facilities, facilities with an agreement support code beginning with S, except SC4, SC6, S15, and S16 facilities generate no personnel requirements.

(3) Construction and Facilities Management Office.

b. Each of the succeeding paragraphs in the appendix is organized the way the FP-PAS document is: first by broad area, and then by individual work center.

D-2. Training Center – FP-PAS

a. Engineering Administration

(1) Plans and Services

(a) Engineering Specialist.

Provides appropriate engineering data to programmers; reviews plans and specifications; reviews bids and makes recommendations for award; inspects construction projects and recommends payments.

(b) Engineering Aide.

Assists the Engineering Specialist in obtaining routine field data; verifies quantities and measurements, performs labor interviews, and accomplishes other tasks as required by the Engineering Specialist.

(2) Facility Management

(a) Engineer Management Specialist.

Responsible for the continuous progress of various construction and other type SRM projects, both present and future.

(b) Planner-Estimator.

Forecasts previously identified valid projects and requirements, estimates all inclusive costs, and recommends methods of resourcing and budgeting.

(c) Project Scheduler.

Reviews approved work orders, assures that required supplies and materials are in stock or purchased and schedules the accomplishment of the work order within the availability of appropriate personnel and/ or tradesmen.

(d) Production Controller.

Receives work order request, verifies requirement is authorized, completes work order form, and forwards to Planner-Estimator and/or Project Scheduler. Receives, reviews, and files completed work orders.

(3) Resource Management

(a) Fiscal Accounting

1. Accountant.

Serves at the senior level and is responsible for general accounting, bookkeeping, auditing, revenue forecasting and budgeting functions in preparation and maintenance of State and Federal records and accounts. Involved in the disbursement of funds and assists in the preparation and maintenance of the training center's overall fiscal programs.

2. Bookkeeper.

Performs any combination of routine calculating, posting, and verifying duties in processing financial data for use in maintaining accounting records.

3. Accounting Specialist.

Maintains records for receipt and issue of funds. Provides detail accounting of available funds and project expenditures. Provides funding status reports as required.

4. Reimbursement Specialist.

Receives documents and reports that require processing to obtain reimbursement for goods and/or services rendered. Receives actual reimbursements and deposits into appropriate accounts. Ensures that all request for reimbursements are liquidated.

(b) Payroll

1. Payroll Specialist.

Process time and attendance (T&A) reports, maintains records, prepares payroll documents, and prepares documentation to obtain salary reimbursement for agreement employees. Also, prepares salary estimates for budgeting. Provides payroll reports as required.

2. Not Used.

(c) Purchasing and Contracting

1. Purchasing and Contracting Clerk.

Responsible for advanced administrative support in the purchase of commodities and services.

2. Purchasing and Contracting Agent.

Responsible for processing commodities and services in a cost effective manner and on a timely basis. Contributes to procurement objectives by serving as a liaison between the training center and vendor by providing a service to the training center and assisting vendors to enter into fair and open competition.

3. Purchasing and Contracting Officer.

Senior level person responsible for formal and informal contracting.

(4) Personnel

(a) Personnel Specialist.

Administers all personnel records, to include employment forms, T&A reports, performance standards, appraisal reports, and other related documents within a personnel file.

(b) Personnel Officer.

Supervises activities of positions and possesses the proper skills to perform each job under his or her purview. Responsible for supervision, scheduling and monitoring of personnel assigned to Personnel Specialist positions.

b. Maintenance of Training Range Real Property

(1) Maintenance of Range Real Property

(a) Range Maintenance Worker.

Responsible for the maintenance upkeep of Federally supported range facilities. This position does not open, close or operate federally supported ARNG ranges.

(b) Equipment Operator.

Responsible for the removal of snow, leaves and other refuse and debris from the range area, walks, roads, and parking areas. Responsible for seeding, sodding, mowing, and cleaning of Federally supported ARNG ranges.

(c) Trades Helper.

Laborer assisting the Range Maintenance Worker in the fulfillment of his or her duties.

(d) Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervision, scheduling and monitoring of personnel assigned to the positions of Range Maintenance Worker, Equipment Operator, and Trades Helper.

(2) Not Used.

c. Trades Workers

(1) Supply and Storage

(a) Supply Specialist.

Responsible for the supply activity associated with the FP. Receives stocks, and issues engineer maintenance and operations supplies and equipment. Completes supply documents, performs warehouse management inventories, and forwards completed documents to Supply Clerk.

(b) Supply Clerk.

Accomplishes supply management actions, to include recording receipt, warehouse location, and issues, and maintaining inventory control records.

(c) Warehouseman.

Responsible for storage of FP materiel and supplies.

(d) Equipment Operator/Driver.

Responsible for operation and maintenance of material handling equipment and vehicles associated with the FP.

(e) Property Specialist.

Responsible for accountability of all State and government-furnished property utilized under Appendix 1 of the Master Cooperative Agreement

(2) Custodial Services

(a) Custodian.

Responsible for cleaning facilities. Work entails sweeping and mopping floors, cleaning windows, etc. In the case of BEQ/BOQ space, does not duplicate or perform maids' duties (making beds, laundry, sweeping/vacuuuming

floors, etc). Provides simplified maintenance to facilities such as cleaning filters, changing light bulbs, painting, and minor carpentry or plumbing.

(b) Foreman (Custodian).

A working foreman who possesses the proper skills to perform each job under his or her purview.

(c) Supervisor.

Supervises activities of positions and possesses the proper skills to perform each job under his or her purview. Responsible for supervision, scheduling and monitoring personnel assigned to positions of Custodian and Foreman (Custodian).

(3) Buildings and Grounds

(a) Supervisor.

Supervises activities of positions and possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to all Buildings and Grounds positions as listed below.

(b) Carpentry

1. Carpenter.

Works with wood and other materials, nails, screws, glue and other fasteners, saws, hammers and various power tools to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the carpenter in his or her duties. May be considered an apprentice.

3. Mason.

Works with bricks, CMUs, cement, concrete, mixers and appropriate finishing tools to repair masonry structures on Federally supported ARNG facilities.

4. Locksmith.

Works with locks, door hardware, and appropriate tools to change or repair locks and hardware on Federally supported ARNG facilities.

5. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to the positions of Carpenter, Trades Helper, Mason, and Locksmith.

(c) Electrical

1. Electrician.

Works with electrical circuits, motors, outlets, lights, wiring, etc., and appropriate tools and meters to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the electrician in his or her duties. May be considered an apprentice.

3. Lineman. Works with low and high voltage electricity, above or below ground wiring, street and area security lighting, and appropriate tools and meters to repair Federally supported ARNG facilities.

4. Helper, Lineman.

Assists the lineman in his or her duties. May be considered an apprentice.

5. Cable Repairman.

Works with telephone, coaxial, fiber-optic, etc. cable and appropriate tools and meters to repair Federally supported ARNG facilities.

6. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to the positions of Electrician, Trades Helper, Lineman, Helper (Lineman), and Cable Repairman.

(d) Mechanical

1. HVAC Mechanic.

Works with heating, ventilating, and air conditioning systems. Possesses some skills in electrical circuits. Uses appropriate tools and meters to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the HVAC Mechanic in his or her duties. May be considered an apprentice.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of HVAC Mechanic and Trades Helper.

(e) Painting

1. Painter.

Works with paints, stains, sealers, thinners, brushes, rollers and pneumatic spray apparatus to repair Federally supported ARNG facilities.

2. Sign Painter.

Works with paints, stains, sealers, thinners, brushes, rollers and pneumatic spray apparatus to repair signs on Federally supported ARNG facilities.

3. Trades Helper.

Assists the Painter and Sign Painter in the execution of their duties. May be considered an apprentice.

4. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Painter, Sign Painter, and Trades Helper.

(f) Plumbing1. Plumber.

Works with copper, PVC, black iron, galvanized pipe and appropriate plumbing equipment and tools to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the Plumber in the execution of his or her duties. May be considered an apprentice.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Plumber and Trades Helper.

(g) Water Treatment1. Plant Operator.

Responsible for maintaining the distribution of water on a military installation. Monitors water pressure, reads meters, and maintains water towers and supporting pump stations, where applicable.

2. Maintenance Technician.

Responsible for the maintenance and repair of all Federally supported water treatment plants and their in-place equipment.

3. Laboratory Technician. Performs daily chemical tests at the water treatment plants and adjusts levels accordingly. Collects water samples and may deliver them to State and/or country labs for analysis. Maintains records for total production and chemicals used; maintains test results; and prepares and all required reports to country and State health agencies as required.

4. Foreman.

Supervises maintenance and repair of all plant equipment (e.g., pumps, motors, moving parts; removes and replaces worn parts). Ensures adjustments on equipment to meet Board of Health, EPA, and OSHA requirements. Organizes and conducts training in plants to ensure 24-hour coverage by qualified personnel. Instructs in proper plant procedures, laboratory tests, safety techniques and equipment.

(h) Wastewater Treatment1. Plant Operator.

Responsible for maintaining the distribution of sewage treatment on a military installation. Maintains, repairs, and replaces communicator, treatment plants, pumps, sludge returns, skimmers; lubricates equipment.

2. Maintenance Technician.

Responsible for the maintenance and repair of all Federally supported wastewater treatment plants and their in-place equipment.

3. Laboratory Technician.

Performs daily chemical tests at the wastewater treatment plant and adjusts levels accordingly. Collect sewage samples and may deliver them to State and/or country labs for analysis. Maintains records for total projection and chemicals used; maintains test results; and prepares and submits all required reports to county and/or State health agencies as required.

4. Foreman.

Supervises activities of wastewater treatment activity positions of Plant Operator, Maintenance Technician, and Laboratory Technician. Supervises and performs maintenance and repair of all plant equipment (e.g., replaces complete pumps and motors, lubricates moving parts, adjusts and changes packing, and removes and replaces worn parts). Makes adjustments on equipment to meet Board of Health, EPA, and OSHA requirements. Organizes and conducts training to ensure 24-hour coverage by qualified personnel; instructs in proper plant procedures, laboratory tests, safety techniques and equipment.

(i) Central Heating Plant

1. Plant Operator.

Responsible for maintaining the central heat plant on a military installation. Maintains, repairs, and replaces plumbing and or fixtures as required for safe operation.

2. Maintenance Technician.

Responsible for the maintenance and repair of all Federally supported heating plants and their in-place equipment.

3. Foreman.

Supervises activities of central heating plant activity positions of Plant Operator and Maintenance Technician. Supervises and performs maintenance and repair of all plant equipment (e.g., replaces complete pumps and motors, lubricates moving parts, adjusts and changes packing, removes and replaces worn parts). Makes adjustments on equipment to meet requirements. Organizes and conducts training in both plants to ensure 24-hour coverage by qualified personnel; and instructs in proper plant procedures, laboratory tests, safety techniques and equipment.

(j) Automated Central Wash Facility

1. Electronics/Electrical Technician.

Provides electrical and instrumentation maintenance services in support of post central track-vehicle wash facilities, such as control panels, pumps, alarms, etc.

2. Operations and Maintenance Technician.

Serves as the operator and general maintenance technician for the post central track vehicle wash facility. Typical duties include repair and trouble shooting of pumps, electronic controls and electrical systems, low and high-pressure piping systems and lines.

(4) Roads and Grounds

(a) Supervisor.

Supervises activities of positions and possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to Roads and Grounds positions as listed below

(b) Roads and Railroads

1. Machine Operator.

Responsible for operation of backhoe, dump truck, road graders, bulldozers, and other heavy equipment required in the maintenance and repair of Federally supported roads and railroads.

2. Laborer.

Responsible for providing the hand labor required for the execution of the Machine Operators duties. May use hand shovel, pick, rake, wheelbarrow, and other appropriate tools. May be considered an apprentice.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Machine Operator and Laborer.

(c) Land Management

1. Light Equipment Operator.

Responsible for operation of farm tractors, dump trucks, bush hogs, rototillers, and other light equipment required for maintenance and repair of Federally supported land.

2. Heavy Equipment Operator.

Responsible for operation of road graders, bulldozers, scrapers and drag lines and other heavy equipment required for maintenance and repair of Federally supported land.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Light Equipment Operator and Heavy Equipment Operator.

(d) Grounds Maintenance

1. Equipment Operator.

Responsible for the removal of snow, leaves, and other refuse and debris from walks, roads, parking, and hutment areas. Responsible for seeding, sodding, mowing, and cleaning to maintain and repair Federally supported grounds.

2. Fence Repairman.

Responsible for repairing fences and for wood and/or metal construction.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Equipment Operator and Fence Repairman.

(e) Refuse

1. Refuse Handler.

Responsible for pickup and emptying of outdoor refuse containers.

2. Refuse Vehicle Operator.

Responsible for operating equipment related to refuse container pickup and discharging refuse at the landfill, tipping station or other collection points.

3. Equipment Operator.

Responsible for distributing refuse in a landfill environment, utilizing mechanical equipment.

4. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Refuse Handler, Refuse Vehicle Operator, and Equipment Operator.

(f) Equipment Maintenance

1. Mechanic.

Responsible for the maintenance and repair of all Federally supported roads, railroads, grounds, and refuse/landfill equipment used in support of Appendix 1 of the Master Cooperative Agreement.

2. Equipment Records Clerk.

Responsible for maintaining property book and maintenance records of all Federally supported roads, railroads, grounds, and refuse/landfill equipment used in support of Appendix 1 of the Master Cooperative Agreement.

3. Welder.

Responsible for the maintenance and repair of all Federally supported roads, railroads, grounds, and refuse/landfill equipment used in support of Appendix 1 of the Master Cooperative Agreement.

4. Trades Helper.

Assists the Mechanic and Welder in the execution of their duties. May be considered an apprentice.

5. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to the positions of Mechanic, Equipment Records Clerk, Welder, and Trades Helper.

d. Fire Prevention and Protection

(1) Fire Chief.

Responsible for the operation and conduct of fire suppression operations for Federally supported facilities.

(2) Assistant Fire Chief.

Assists the Fire Chief in the conduct of fire suppression and assigns tasks to ensure proper maintenance on all fire suppression equipment and vehicles.

(3) Fireman.

Performs fire suppression operations under the leadership of the Fire Chief and Assistant Fire Chief.

(4) Fire Protection Inspector.

Responsible for providing fire plans and fire suppression procedures within ARNG facilities at the training site.

(5) Systems Repairman.

Responsible for the maintenance of all fire suppression equipment assigned to the training site.

D-3. Statewide Logistics Facilities – FP-PAS

a. Engineering Administration

(1) Plans and Services

(a) Engineering Specialist.

Provides appropriate engineering data to programmers; reviews plans and specifications; reviews bids and makes recommendations for award; inspects construction projects and recommends payments.

(b) Engineering Aide.

Assists the Engineering Specialist in obtaining routine field data; verifies quantities and measurements, performs labor interviews, and accomplishes other tasks as required by the Engineering Specialist.

(2) Facility Management

(a) Engineer Management Specialist.

Responsible for the continuous progress of various construction and other type SRM projects, both present and future.

(b) Planner-Estimator.

Forecasts previously identified valid projects and requirements, estimates all inclusive costs, and recommends methods of resourcing and budgeting.

(c) Project Scheduler.

Reviews approved work orders, assures that required supplies and materials are in stock or purchased and schedules the accomplishment of the work order within the availability of appropriate personnel and/ or tradesmen.

(d) Production Controller.

Receives work order request, verifies requirement is authorized, completes work order form, and forwards to Planner-Estimator and/or Project Scheduler. Receives, reviews, and files completed work orders.

(3) Resource Management

(a) Fiscal Accounting

1. Accountant.

Serves at the senior level and is responsible for general accounting, bookkeeping, auditing, revenue forecasting and budgeting functions in preparation and maintenance of State and Federal records and accounts. Involved in the disbursement of funds and assists in the preparation and maintenance of the training center's overall fiscal programs.

2. Bookkeeper.

Performs any combination of routine calculating, posting, and verifying duties in processing financial data for use in maintaining accounting records.

3. Accounting Specialist.

Maintains records for receipt and issue of funds. Provides detail accounting of available funds and project expenditures. Provides funding status reports as required.

4. Reimbursement Specialist.

Receives documents and reports that require processing to obtain reimbursement for goods and/or services rendered. Receives actual reimbursements and deposits into appropriate accounts. Ensures that all request for reimbursements are liquidated.

(b) Payroll

1. Payroll Specialist.

Process T&A reports, maintains records, prepares payroll documents, and prepares documentation to obtain salary reimbursement for agreement employees. Also, prepares salary estimates for budgeting. Provides payroll reports as required.

2. Not Used.

(c) Purchasing and Contracting

1. Purchasing and Contracting Clerk.

Responsible for advanced administrative support in the purchase of commodities and services.

2. Purchasing and Contracting Agent.

Responsible for processing commodities and services in a cost effective manner and on a timely basis. Contributes to procurement objectives by serving as a liaison between the training center and vendor by providing a service to the training center and assisting vendors to enter into fair and open competition.

3. Purchasing and Contracting Officer.

Senior level person responsible for formal and informal contracting.

(4) Personnel

(a) Personnel Specialist.

Administers all personnel records, to include employment forms, T&A reports, performance standards, appraisal reports, and other related documents within a personnel file.

(b) Personnel Officer.

Supervises activities of positions and possesses the proper skills to perform each job under his or her purview. Responsible for supervision, scheduling and monitoring of personnel assigned to Personnel Specialist positions.

b. Trades Workers

(1) Supply and Storage

(a) Supply Specialist.

Responsible for the supply activity associated with the FP. Receives stocks, and issues engineer maintenance and operations supplies and equipment. Completes supply documents, performs warehouse management inventories, and forwards completed documents to Supply Clerk.

(b) Supply Clerk.

Accomplishes supply management actions, to include recording receipt, warehouse location, and issues, and maintaining inventory control records.

(2) Custodial Services

(a) Custodian.

Responsible for cleaning facilities. Work entails sweeping and mopping floors, cleaning windows, etc. Provides simplified maintenance to facilities such as cleaning filters, changing light bulbs, painting, and minor carpentry or plumbing.

(b) Foreman (Custodian).

A working foreman who possesses the proper skills to perform each job under his or her purview.

(3) Equipment Maintenance

(a) Mechanic.

Responsible for the maintenance and repair of all Federally supported roads, railroads, grounds, and refuse/landfill equipment used in support of Appendix 1 of the Master Cooperative Agreement.

(b) Equipment Records Clerk.

Responsible for maintaining property book and maintenance records of all Federally supported roads, railroads, grounds, and refuse/landfill equipment used in support of Appendix 1 of the Master Cooperative Agreement.

(c) Welder.

Responsible for the maintenance and repair of all Federally supported roads, railroads, grounds, and refuse/landfill equipment used in support of Appendix 1 of the Master Cooperative Agreement.

(d) Trades Helper.

Assists the Mechanic and Welder in the execution of their duties. May be considered an apprentice.

(e) Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to the positions of Mechanic, Equipment Records Clerk, Welder, and Trades Helper.

(4) Buildings and Grounds

(a) Supervisor.

Supervises activities of positions and possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to all Buildings and Grounds positions as listed below.

(b) Carpentry

1. Carpenter.

Works with wood and other materials, nails, screws, glue and other fasteners, saws, hammers and various power tools to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the carpenter in his or her duties. May be considered an apprentice.

3. Mason.

Works with bricks, CMUs, cement, concrete, mixers and appropriate finishing tools to repair masonry structures on Federally supported ARNG facilities.

4. Locksmith.

Works with locks, door hardware, and appropriate tools to change or repair locks and hardware on Federally supported ARNG facilities.

5. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to the positions of Carpenter, Trades Helper, Mason, and Locksmith.

(c) Electrical

1. Electrician.

Works with electrical circuits, motors, outlets, lights, wiring, etc., and appropriate tools and meters to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the electrician in his or her duties. May be considered an apprentice.

3. Lineman. Works with low and high voltage electricity, above or below ground wiring, street and area security lighting, and appropriate tools and meters to repair Federally supported ARNG facilities.

4. Helper, Lineman.

Assists the lineman in his or her duties. May be considered an apprentice.

5. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to the positions of Electrician, Trades Helper, Lineman, and Helper (Lineman).

(d) Mechanical

1. HVAC Mechanic.

Works with heating, ventilating, and air conditioning systems. Possesses some skills in electrical circuits. Uses appropriate tools and meters to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the HVAC Mechanic in his or her duties. May be considered an apprentice.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of HVAC Mechanic and Trades Helper.

(e) Painting

1. Painter.

Works with paints, stains, sealers, thinners, brushes, rollers and pneumatic spray apparatus to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the Painter and Sign Painter in the execution of their duties. May be considered an apprentice.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Painter and Trades Helper.

(f) Plumbing

1. Plumber.

Works with copper, PVC, black iron, galvanized pipe and appropriate plumbing equipment and tools to repair Federally supported ARNG facilities.

2. Trades Helper.

Assists the Plumber in the execution of his or her duties. May be considered an apprentice.

3. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling, and monitoring personnel assigned to the positions of Plumber and Trades Helper.

(g) Grounds Maintenance

1. Grounds Maintenance Worker.

Responsible for the maintenance and upkeep of grounds at Federally supported logistics facilities.

2. Equipment Operator.

Responsible for the removal of snow, leaves and other refuse and debris from range areas, walks, roads, and parking areas. Responsible for seeding, sodding, mowing and cleaning to maintain and repair at Federally supported logistics facilities.

3. Trades Helper.

Hand laborer for the Grounds Maintenance Worker in the fulfillment of his or her duties.

4. Fence Repairman.

Responsible for repairing fences and for wood and/or metal construction.

5. Foreman.

A working foreman who possesses the proper skills to perform each job under his or her purview. Responsible for supervising, scheduling and monitoring personnel assigned to the positions of Grounds Maintenance Worker, Equipment Operator, Trades Helper, and Fence Repairman.

D-4. Construction and Facilities Management Office FP-PAS

a. Accounting Specialist.

Responsible for maintaining accounting and fiscal records; prepares, reviews, and analyzes a variety of accounts and records of financial transactions.

b. Administrative Specialist.

Performs administrative functions in support of the FP.

c. Agreements Manager.

Responsible for cooperative agreements, inter-agency agreements, and other support agreements.

d. Architect. Technically responsible for the architectural aspects of real property projects.

e. Architectural/Engineering Technician.

Skilled in different disciplines to assist architects or engineers in the performance of their duties and responsibilities.

f. Budget Analyst.

Prepares, submits and analyzes the execution of the FP State operating budget.

g. Civil Engineer.

Technically responsible for the civil engineering aspects of real property projects.

h. CADD Technician.

Responsible to the various technical disciplines for drafting and/or updating plans for real property projects.

i. Contract Administrator.

Responsible for overall administration and supervision of the contracting function for real property activities.

j. Contracting Specialist.

Assists contract administrator as required.

k. Data Transcriber.

Provides office automation and data transcription services in an automated environment.

l. Electrical Engineer.

Technically responsible for the electrical engineering aspects of real property projects.

m. Energy Conservation Manager.

Responsible for the development, coordination and implementation of a Statewide energy program.

n. Estimator.

Responsible for estimating cost factors related to real property projects.

o. Facilities Coordinator.

Provides direct facilities oversight on matters concerning maintenance, repair and construction activities, to include funding and personnel.

p. Industrial Engineer.

Performs engineering studies relative to the design and installation of systems that will improve the operation of federally supported facilities; conducts utilization studies relative to setting workload standards; conducts surveys and develops measurement techniques to simplify work and improve product quality.

q. Information Systems Manager.

Provides technical management of automated hardware and software systems in support of Construction and Facilities Management Office operations. Supports standardized programs associated with FP, such as FP-PAS, Budget Organization and Tracking System (BOATS), "Facilities Center," Information Status Report (ISR), and others.

r. Information Technology Manager.

Provides technical management of automated hardware and software systems in support of real property activities.

s. Information Technology Specialist.

Assists the Information Technology Manager as required.

t. Master Planner.

Responsible for the development, coordination and maintenance of a statewide Real Property Development Plan. Coordinates and conducts all required planning studies.

u. Master Planning Specialist.

Assists the Master Planner in developing, coordinating and maintaining the Real Property Development Plan.

Responsible for collecting and incorporating data into database system(s).

v. Maintenance Manager.

Manages maintenance and repair activities for real property.

w. Mechanical Engineer.

Technically responsible for the mechanical engineering aspects of real property projects.

x. Personnel Officer.

Responsible for the overall administration and supervision of the personnel functions for real property activities.

y. Personnel Specialist.

Assists personnel officer as required.

z. Production Controller.

Receives, verifies and processes work orders for real property.

aa. Project Inspector.

Responsible for project inspections to ensure compliance with project plans and specifications.

ab. Project Manager. Responsible for the identification, administrative development, coordination, and the execution of real property projects.

ac. Project Specialist.

Assists the project manager as required. Responsible for collecting and incorporating data into database system(s).

ad. Program Analyst.

Performs a wide variety of consultative and analytical staff assignments such as program evaluation, policy analysis and formulation, systems development, budgeting, planning, and personnel analysis.

ae. Program Coordinator.

Responsible for program management of acquisition, construction, disposal, other type SRM, and similar activities for all real property facilities.

af. Purchasing Agent. Within delegated authority directly procures goods and services in support of real property activities.

ag. Real Property Manager.

Coordinates all real property transactions to include leases, licenses and other real property instruments.

ah. Real Property Specialist.

Assists the Real Property Manager in real property transactions. Responsible for collecting and incorporating data into database system(s) and responsible for maintaining real property files.

ai. Resource Specialist.

Performs analysis involving areas of fiscal and financial requirements, personnel, workload data, and organizational requirements.

aj. Specification Writer. Responsible for writing technical specifications for various real property projects.

ak. Structural Engineer.

Technically responsible for the structural engineering aspects of real property projects.

al. Surveyor.

Responsible for topographical surveys, establishing legal metes and bounds, and research and development of legal descriptions.

Appendix E
The NGB Uniform Standards for the Payment of Architect-Engineering Services Fee Schedule

Estimated Project Cost or Lowest Responsible Bid Awarded for Contract (cost of construction changes not to be included)	NEW WORK			SITE ADAPTATION		
	Total Percent	Col A (75%)	Col B (25%)	Total Percent	Col C	Col D
Less than \$100,000	12.60	8.60	4.00	10.60	6.60	4.00
\$100,000 and under \$150,000	12.00	8.00	4.00	10.00	6.00	4.00
\$150,000 and under \$200,000	11.70	7.70	4.00	9.70	5.70	4.00
\$200,000 and under \$250,000	11.40	7.40	4.00	9.40	5.40	4.00
\$250,000 and under \$300,000	11.25	7.25	4.00	9.25	5.25	4.00
\$300,000 and under \$350,000	11.10	7.10	4.00	9.10	5.10	4.00
\$350,000 and under \$400,000	10.95	6.95	4.00	8.95	4.95	4.00
\$400,000 and under \$500,000	10.80	6.80	4.00	8.80	4.80	4.00
\$500,000 and under \$600,000	9.65	6.65	3.00	7.65	4.65	3.00
\$600,000 and under \$700,000	9.58	6.58	3.00	7.58	4.58	3.00
\$700,000 and under \$800,000	9.50	6.50	3.00	7.50	4.50	3.00
\$800,000 and under \$1,000,000	9.43	6.43	3.00	7.43	4.43	3.00
\$1,000,000 and under \$1,500,000	9.35	6.35	3.00	7.35	4.35	3.00
\$1,500,000 and under \$2,000,000	9.28	6.28	3.00	7.28	4.28	3.00
\$2,000,000 and under \$2,500,000	9.20	6.20	3.00	7.20	4.20	3.00
\$2,500,000 and over	9.13	6.13	3.00	7.13	4.13	3.00

NOTES:

1. Column A percentages equal the total allowed for four (4) items of work consisting of investigation of site soil conditions, topographic survey of the project site, original design, and reproduction of bidding documents.
2. The portion of any Column A percentage allocated only to original design work (i.e., exclusive of soil investigation, topographic survey, and bidding document costs) cannot exceed 6.00 percent.
3. Columns B and D percentages equal the total allowed for supervision and inspection services during the construction period of the project.
4. Column C percentages equal the total allowed for the same four (4) items of work as Column A but with a 2 percent reduction to reflect reduced design work required (including design of exterior supporting features needed for the facility) to adapt a previously designed facility to a different location.
5. For alteration and rehabilitation work, A-E fee percentages listed under New Work (Col A) may be increased by a factor of 25 percent (25%) to support required reproduction and investigative services other than design. Note that design services are limited in all cases to 6.00 percent.

Appendix F Federal A-E Selection Actions

F-1. Scope

a. This appendix contains the general roles and relationships of the CFMO to the evaluation board(s) formation, and operation involved in contracting for A-E services for Operations and Maintenance minor construction on Federally owned or leased land.

b. These provisions are procedures enumerated in the FAR, Section 36, and as supplemented. The FAR can be accessed electronically at www.arnet.gov/far/, the DFARS can be accessed at www.acq.osd.mil/dp/dars/dfars.html, and the Army supplement can be accessed at <http://acqnet.sarda.army.mil/library/zpafar.htm>.

F-2. Responsibility

All A-E selection actions shall be under the cognizance of the Chief, National Guard Bureau, or his designee, generally the host ARNG CFMO. Throughout the remainder of this appendix, CFMO will be used to denote the position delegated the A-E selection authority.

F-3. Indefinite Delivery/Indefinite Quantity Contract

If your contracting office does not have a Federal indefinite delivery/indefinite quantity (IDIQ) A-E contract, suggest you have them solicit for one or add all your Federal facilities to the synopsis for the Air National Guard IDIQ in your State.

F-4. CFMO and Evaluation Board Requirements

a. The CFMO must develop a detailed Government Estimate for A-E Services and selection qualifications for the project. These qualifications must include the qualifications required by FAR 36.602-1 and indicated on the work sheet, plus special project specific qualifications, such as size and expertise of staff, special design and conceptual experience, etc. The CFMO will determine the importance of each element as it applies to the project.

b. If the Government Estimate for A-E Services is below \$2,500, the CFMO may select the most qualified firm from the available A-E qualification forms (SF 254 and SF 255) on file in the CFMO's office.

c. If the Government Estimate for A-E Services is between \$2,500 and \$25,000, the A-E Evaluation Board or the board chair may select the most qualified firm from SF 254 and SF 255 A-E qualification forms on file.

d. If the Government Estimate for A-E Services exceeds \$25,000, the CFMO shall prepare a draft synopsis describing the salient characteristics of the project and of the A-E services, as required by the contracting officer, in preparation for the synopsis to be published in the CBD.

e. If the Government Estimate for A-E Services exceeds \$100,000 (including phases and options) and after publication of the synopsis notice and receipt of the submittal packages from the contracting officer; the CFMO may approve the selection process to be performed by the chairperson of the board, if the evaluation board decides that formal action is not necessary in connection with a particular selection. The following procedures shall be followed:

(1) The chairperson of the evaluation board shall perform the functions specified in FAR 36.602-3.

(2) The CFMO shall review the report and approve it or return it to the chairperson for appropriate revision.

(3) Upon receipt of an approved report, the CFMO shall following the guidance contained in FAR 36.602-4 and furnish the contracting officer a copy of the report, which will serve as an authorization for the contracting officer to commence negotiations in accordance with FAR 36.606.

F-5. A-E Evaluation Board Formation and Composition

a. The CFMO shall select and have placed on orders at least three board members who, collectively, have experience in architecture, engineering, construction, and Government and related acquisition matters.

(1) Members shall be appointed from among highly qualified professional employees of the agency or other agencies, and private practitioners of architecture, engineering, or related professions.

(2) One senior Government member of each board shall be designated as the chairperson. No firm shall be eligible for award of an architect-engineer contract during the period in which any of its principals or associates are participating as members of the awarding agency's evaluation board.

(3) Staff from other ARNG, ANG, Army, or Air Force facilities may be used if there are insufficient resources within the unit.

b. The primary factor in A-E selection is the determination of the most highly qualified firm.

F-6. Functioning of the A-E Evaluation Board

- a. An evaluation board shall not be convened prior to notification by the USPFO that proper notice/advertising time in the CBD has elapsed.
- b. The evaluation board shall be convened by the CFMO on those projects whose total design fee is expected to be in excess of \$2,500.
- c. A pre-evaluation board may be used to identify to the evaluation board the qualified firms that have a reasonable chance of being considered as most highly qualified by the selection board. Members who serve on the pre-evaluation board may also serve on the final evaluation board.
- d. A-E Firms considered by the evaluation board shall be those responding to the notice/advertisement initiated by the USPFO and having a current SF 254 and SF 255 on file with the CFMO.
- e. Items for consideration in evaluating firms shall only be those listed in the CBD and ranked in the same order as in the advertisement.
- f. Evaluation board members will evaluate firms on an evaluation work sheet using criteria in paragraph F-7 below.
- g. Board members shall tabulate their evaluation scores totaling each A-E's points and shall summarize their findings in ranking form 1, 2, 3, etc. Their rankings will then be tabulated to make the final evaluation in rank order of firms. Documentation of the tabulation of the ranking shall be forwarded to the CFMO for final selection in accordance with FAR 36.602-4.

F-7. Criteria for A-E evaluation

- a. The board(s) will evaluate the A-E firms using the criteria established in the FAR and supplements thereto.
- b. The assigned values for each rating factor should be carefully selected for each project prior to advertisement (e.g., paving project will require different expertise than a building; a new building design will require fewer field trips than an alteration project). Thus, the importance of the firm's location will be more important for an alteration project. The assigned values may vary from 0-3 to 0-10 points. Rating factors should be listed in the CBD in order of importance. In the absence of specific information, the rates on pre-evaluation board will rate within mid-range.
- c. Criteria should be established for each rating factor. The following is a sample criteria only. It is used to aid the evaluator in the application of the selection criteria.

(1) The various assigned rating values have been broken down into Low Range, Mid Range, and High Range as follows:

Rating Values	Range		
	Low	Mid	High
0-10	0-3	4-7	8-10
0-8	0-2	3-5	6-8
0-7	0-2	3-5	6-7
0-6	0-2	3-4	5-6
0-3	0-1	2	3

(2) The following criteria have been established to guide the evaluator in assessing each rating factor. Since the assigned rating values for each factor vary from project to project, the rating values have been stated in ranges rather than in specific points values.

(a) Location of A-E (Main or Branch Office).

- 1. High Range. Firm has office within ___ miles of project area.
- 2. Mid Range. Firm has office within ___ and ___ miles from the project area.
- 3. Low Range. Firm has office beyond ___ miles from project

(b) Experience with this type of facility.

- 1. High Range. Personnel have designed one or more projects of the same type and scope as this project.
- 2. Mid Range. Personnel have designed one or more projects similar to the type and scope of this project.
- 3. Low Range. Personnel have little or no experience in this type of project.

(c) Specialized experience (related to this project) in each of the following disciplines: Architectural, Civil Engineering, Structural Engineering, Mechanical Engineering, Electrical Engineering, and other disciplines. Rate each discipline separately.

- 1. High Range. Firm has highly competent in-house or consultant expertise in the particular discipline with considerable experience on projects requiring the same types of services as this project. (The number of consultants in a firm should not give a firm a higher rating. Most ARNG projects will only require one consultant of each specialty.)

2. Mid Range. Firm has competent in-house or consultant expertise in the particular discipline with a moderate amount of experience on projects requiring the same types of services as this project.

3. Low Range. Firm has in-house or consultant expertise in the particular discipline with little or no experience on projects requiring similar types of services as this project.

(d) Availability of key personnel.

1. High Range. Highly qualified supervisor and designers in this type construction are available for this project. A highly qualified inspector experience in this work is available.

2. Mid Range. Qualified supervisors and designers are available to supervise the project, and a qualified inspector experienced in this type work is available.

3. Low Range. Qualified personnel will be assigned the work but are not experienced in this type of project.

(e) Ability to accomplish required services. (Grade rating factors 1, 2, and 3 based upon evaluator's personal experience or upon information supplied by other Government agencies and clients listed in SF 254.)

1. Meets schedules.

a. High Range. Consistently meets schedules.

b. Mid Range. Occasionally does not meet schedules.

c. Low Range. Seldom meets schedules.

2. Quality of work.

a. High Range. Consistently produces high quality work.

b. Mid Range. Occasionally produces work that is not of the highest quality.

c. Low Range. Frequently produces work that is not of the highest quality.

3. Workload.

a. High Range. Shows evidence of steady workload; has ability to accommodate this project and meet schedules.

b. Mid Range. Shows evidence of erratic workload; may possibly be overloaded at the time of this project, thereby affecting his ability to meet schedules.

c. Low Range. Shows evidence of work overload; probably will not be able to meet schedules.

(f) Volume of DOD work.

1. High Range. Fees for DOD work during the current calendar year are between \$0 and \$100,000.

2. Mid Range. Fees for DOD work during the current calendar year are between \$100,000 and \$200,000.

3. Low Range. Fees for DOD work during the current calendar year exceed \$200,000.

d. The pre-evaluation board, if required, will recommend to the final evaluation board a number of qualified firms, normally not less than six.

e. The evaluation board is convened by CFMO for all selections in which an A-E fee is expected to exceed \$2,500. It will normally recommend not less than three qualified firms.

(1) When the A-E fee(s) is expected to exceed \$2,500 but is expected to be less than \$25,000, the board evaluates SF254 from their current SF254 on file in the CFMO's office.

(2) When the A-E fee(s) is expected to exceed \$25,000, the CFMO provides the board, through the USPFO, an approved list and the SF254s and SF 255s which he/she has received from the responding firms and from current SF 254s/SF 255s on file in the CFMO's office.

(3) When the expected A-E fee(s) exceed \$100,000, the evaluation board will conduct oral or written discussions with all firms then list in order of preference recommending the most highly qualified firm-using format described above.

Appendix G Management Control Checklist

G-1. Function

The function covered by this checklist is overall Construction and Facilities Management Office management and control. It includes activities covered by this pamphlet, NGB-AQ cooperative agreement directives, and NGR 420-10. It does not include activities covered by NGR 415-5.

G-2. Purpose

The purpose of this checklist is to assist the State Construction and Facilities Management Officer in evaluating the key management controls listed below. It is not intended to cover all controls.

G-3. Instructions

Answers must be based on the actual testing of key management controls (for example, document analysis, direct observation, sampling, simulation). Answers that indicate deficiencies must be explained and corrective action must be identified in supporting documentation. These key management controls must be evaluated at least once every five years. Certification that this evaluation has been conducted must be accomplished on DA Form 11-2-R (Management Control Evaluation Certification Statement).

G-4. Test Questions

- a. Are State organizational and operational responsibilities for facilities engineering, housing, and environmental support activities clearly assigned? Are procedures firmly in place that the CFMO is the one individual within the State who must approve in advance any action taken to real property?
- b. Is all real property for which the CFMO is responsible recorded on the FISP completely and accurately? Is the category code, agreement support code, size, and capitalization data for each piece of real property correct? Did the CFMO and the USPFO complete and certify their required annual review of the FISP?
- c. Is master planning for the State being accomplished, and has the CFMO kept the Real Property Development Plan (RPDP) complete, thorough, accurate, and up to date?
- d. Does the RPDP guide the State's real property resourcing decisions?
- e. Do the appointments of the CFMO and staff reflect facilities management or engineering background and experience and provide for program stability, continuity, and institutional knowledge?
- f. Does the CFMO receive sufficient lead time to plan, program, and execute projects to support changes in equipment, doctrine, and mission?
- g. Are only valid items on State vouchers reimbursed? That is,
 - (1) Is the facility associated with the reimbursement request authorized support on the FISP and at the rate indicated on the voucher?
 - (2) Is the operations and maintenance minor construction or other type SRM project for a supported facility (or, for construction, a facility that will be supported upon completion of the project)?
 - (3) Are vouchers for people either for those repairing a supported facility or directly supporting a trades worker or the agreement?
 - (4) Is the engineering equipment/supply/ service/purchase/rental in direct support of a supported facility?
 - (5) Is the rate of reimbursement requested in direct proportion to the percentage of Federal support times percent effort consumed on supported facility?
 - (6) Is the reimbursement request only for or in support of facility construction or other type SRM and not facility operation?
- h. Do Federally reimbursed State employee levels stay at or under 55% of the CFMO operating budget and not exceed FP-PAS generated allocations?
 - i. Are up-to-date support agreements established with tenants and customers?
 - j. Is there a work management system, including customer service standards, in place and operating properly within the State?
 - k. Does the CFMO use a data base for work requirements and a tracking system to account for project work?
- l. Do all operations and maintenance minor construction and other type SRM projects requiring an NGB Form 420-R begin only when proper staffing has been completed and documented on appropriate forms by the proper approval authority?
- m. Do specified range, explosives, and other training site projects stop at the preliminary site planning stage until they receive required DDESB and/or NGB-AVS approval?

- n. Does no restoration or modernization project concerning an indoor range begin until it has been reviewed by the Joint Service Reserve Component Facility Board?
- o. Are all requests for exceptions to criteria properly documented and clearly justified?
- p. Is it only the CFMO who classifies, approves, and oversees all operations and maintenance minor construction and other type SRM projects?
- q. Are manual or electronic SRM project files established to provide complete historical records of projects? Does each file contain all the appropriate documents, including required project approvals and reapprovals, necessary documentation on work classification, and required coordination with environmental, security, health, safety, and code officials? Are files maintained for at least two years after completion of the project?
- r. Are proper funding sources and estimated costs identified and separated for construction and other type SRM projects?
- s. Are obligations and expenses for work on real property facilities being recorded accurately in official finance and accounting records?
- t. Are obligations and expenses for work on real property facilities being recorded accurately and in enough detail to ensure compliance with project approval authority and the Chief Financial Officer Act, to develop accurate rates for reimbursable services, and to support review and analysis of work accomplished?
- u. Are State controls established to prevent project costs from exceeding approval limits? Are there controls to ensure that projects are not improperly incremented and statutory limits on use of operations and maintenance funds for construction exceeded?
- v. Are estimators, designers, and project managers trained adequately in work classification and project and dwelling unit limitations to ensure that work is classified properly and that costs are charged accurately to the correct account?
- w. Are expedited procedures established for projects to repair facilities damaged by natural occurrences?
- x. Are inspectors and other personnel appointed for monitoring and evaluating contractor performance trained adequately in quality assurance surveillance and reporting methods?

G-5. Supersession

This checklist is new and does not supersede any existing list.

G-6. Comments

Help make this a better tool for evaluating management controls. Submit comments and recommendations to Chief of Installations (NGB-ARI), 111 South George Mason Drive, Arlington, VA 22204-1382.

Glossary

Section I Abbreviations

AAFES

Army and Air Force Exchange Service

AAS

Analysis of Alternatives Study

AASF

Army Aviation Support Facility

ACM

Asbestos Containing Material

A-E

Architect-Engineering

AFG

Annual Funding Guidance

AGR

Active/Guard/Reserve

AMSCO

Army Management Structure Code

ANG

Air National Guard

AON

Act of Nature

AR

Army Regulation

ARNG

Army National Guard

ASA (I&E)

Assistant Secretary of the Army (Installations and Environment)

AVCRAD

Aviation Classification Repair Activity Depot

BEQ

Bachelor Enlisted Quarters

BOATS

Budget Organization and Tracking System

BOQ

Bachelor Officer Quarters

CADD

Computer-Aided Design and Drawing

CBD

Commerce Business Daily

CCTV

Closed Circuit Television

CFMO

Construction and Facilities Management Officer

CFR

Code of Federal Regulations

CIDS

Commercial Intrusion Detection System

CMU

Concrete Masonry Unit

COFT

Conduct of Fire Trainer

CONUS

Continental United States

COTR

Contracting Officers Technical Representative

DA

Department of the Army

DD

Department of Defense

DDESB

Department of Defense Explosives Safety Board

DFARS

Defense Federal Acquisition Regulation Supplement

DFAS

Defense Accounting and Finance Service

DoD

Department of Defense

DoDD

Department of Defense Directive

DoDI

Department of Defense Instruction

EBS

Environmental Baseline Survey

ECAS

Environmental Compliance and Assessment

EPA

Environmental Protection Administration

EPS

Environmental Protection Specialist

ESPC

Energy Savings Performance Contracting

FAR

Federal Acquisition Regulation

FISP

Facilities Inventory and Support Plan

FP

Facilities Programs

FP-PAS

Facilities Programs Personnel Allocation Standard

FS-CATT

Fire Support Combined Arms Tactical Trainer (Field Artillery Training Device)

FTE

Full Time Equivalent

GKO

Guard Knowledge Online

GPM

Gallons per Minute

GUARDFIST

Forward Observer Interactive Simulation Trainer (Field Artillery Training Device)

HVAC

Heating, Ventilating, Air Conditioning

IBE

Installed Building Equipment

ICUZ

Installation Compatible Use Zones

IDIQ

Indefinite Delivery/Indefinite Quantity

IFB

Invitation for Bid

ISO

International Organization of Standards

J-SIIDS

Joint Services Interior Intrusion Detection System

LURS

Land Use Requirements Study

MATES

Maneuver Area Training and Equipment Site

MWR

Morale, Welfare, and Recreation

NEPA

National Environmental Policy Act

NG

National Guard

NGB

National Guard Bureau

NGB-AQ

National Guard Bureau Acquisition

NGB-ARI

Army Installations Division

NGB-ARL

Army Logistics Division

NGB-ART

Army Training Division

NGB-AVS

Army Aviation and Safety Division

NGB-AY

National Guard Bureau Athletics and Youth Development

NGB-CD

National Guard Bureau Counterdrug Division

NGB-PAH

National Guard Bureau Historical Services Division

NGR

National Guard Regulation

OMB

Office of Management and Budget

OPR

Office of Primary Responsibility

OSD

Office of the Secretary of Defense

OSHA

Occupational Safety and Health Administration

Pam

Pamphlet

PCB

Polychlorinated Biphenyl

PVC

Poly-vinyl choride

REC

Record of Environmental Consideration

RPDP

Real Property Development Plan

RPF

Real Property Facility

RPM

Real Property Maintenance

RTI

Regional Training Institute

SF

Standard Form

SIOH

Supervision, Inspection, and Overhead

SIR

Savings to investment ratio

SOW

Statement of Work

SRM

Sustainment, Restoration, and Modernization

T&A

Time and Attendance

TASS

The Army School System

TM

Technical Manual

UPS

Uninterruptible Power Supply

U.S.C.

United States Code

USPFO

United States Property and Fiscal Officer

UTES

Unit Training and Equipment Site

WMD-CST

Weapons of Mass Destruction Civil Support Team

Section II**Terms****Budget Organization and Tracking System (BOATS)**

Software used by the State to prepare, submit, receive NGB-ARI approval of, and track the execution of their FP budget.

Cabling

Includes cable and the fittings, connectors, terminal strips, and similar devices needed to install cable. Cabling also includes wired-in equipment such as multiplexers and interface devices built into the system up to the outlet device plate when required to complete the transmission path to the user outlet. Cabling does not include servers, routers, brouters, gateways, and other user-specific equipment associated with local area networks and wide-area networks. Plug-in and other devices and wiring external to the user outlet are also not cabling.

Canceled Funds

An appropriation, five years after the entire period of availability for its obligation has ended. In the case of almost all operations and maintenance appropriations this is at midnight on 30 September five years after the fiscal year named on the appropriation. At this time the appropriation shall be closed and any remaining balance (whether obligated or unobligated) in the account shall be canceled and thereafter shall not be available for obligation or expenditure for any purpose.

Construction

The erection, installation, or assembly of a new facility; the relocation of a facility; the complete replacement of an existing facility; or the addition, expansion, extension, alteration, or conversion (to a new type use) of an existing facility. This includes installed building equipment and related site preparation, excavation, filling and landscaping or other land improvements. It also includes increases in components of facilities for functional reasons when a facility is not being repaired and the components are not required to meet current standards, and it includes the extension of utilities to areas not previously served. Construction is an activity that may be a part of either the restoration or modernization program.

Demolition

The complete dismantling, tearing down, razing, wrecking, or burning of a fixed building or facility, to include the removal of foundations, utilities, and all debris, the backfill of all areas excavated by the work to maintain site grades and contours, and the reseeded of the property.

Expired Funds

An appropriation, when balances no longer are available for incurring new obligations, because the time available for making such obligations has expired. In the case of almost all operations and maintenance appropriations this is at midnight on 30 September of the fiscal year named on the appropriation. At this time the appropriation is only available for making obligations within the scope of the contracts in force at the time the appropriation expired.

Facility

A separate and individual building, structure, utility system, or other real property improvement identifiable with a category code from DA Pam 415-28. Supporting elements for structures, such as sidewalks, fire hydrants, gasoline and diesel fuel dispensing systems, flammable materials buildings, roads, fencing, and hard stand, are all separate facilities.

Facilities Center

A customized version of a commercial off the shelf computer integrated facilities management system. It serves as the ARNG's information management system used by NGB and the CFMOs to manage real property assets from cradle to grave and to track and maintain all facilities related data, including project data.

Facilities Inventory and Support Plan (FISP)

An electronic document to provide detailed information on all Federally/State owned, State operated, ARNG facilities within each individual State, Commonwealth, or Territory. It details information on structures, activities, locations, and lists other pertinent data required for Federal participation for support. It identifies facilities, to include those that are eligible for support with Federal funds.

Installation

An aggregation of contiguous or near contiguous, common mission-supporting real property holdings under the jurisdiction of the State, the District of Columbia, territory, or commonwealth controlled by and at which an ARNG unit or activity is permanently assigned. For the purpose of Installation Status Report reporting and the calculation of programming inventory, each State shall be considered a separate installation. However, for real property inventory reporting, each entity with a FISP number will be reported as an installation.

Installed Building Equipment (IBE)

Installed building equipment (real property) are items that are affixed or built into the facility and become an integral part of the facility.

Maintenance

The work required to preserve and maintain a piece of real property or a real property facility in such condition that it may be effectively used for its designated functional purpose. It includes work done to sustain existing components (such as renewal of disposable filers, painting, caulking, refastening loose siding, and sealing asphalt pavement) and cyclic work done to prevent damage which would be more costly to restore than to prevent. Maintenance is an activity that is part of the sustainment program.

Modernization

The construction of new or alteration of existing facilities solely to implement new or higher standards (including regulatory changes), to accommodate new functions (or change the purpose of a facility), or to replace building components that typically last more than 50 years (such as foundations and structural members). Modernization is a program, and as such must be distinguished from the activities that make it up: repair and construction.

Personal Property (Fixed)

Capital equipment and other equipment of a movable nature that has been fixed in place or attached to real property, but which may be severed or removed from buildings without destroying the usefulness of the facilities.

Personal Property (Moveable)

Equipment that is movable and not affixed as an integral part of the facility.

Pre-Wired Workstations

A workstation which should include posts, panels, partitions, wiring for electricity and communications, task lighting, and partition-hung components to support individual and group efforts. Both panel-to-panel and post-to-panel systems are acceptable. Additional system components are ambient lighting and partition supported files. A pre-wired workstation should, at a minimum, provide for the following functions: (1) An acoustically treated enclosure defining the limits of an individual or a shared use workstation. (2) Adequate work surfaces to accommodate the individual's equipment, writing, and work layout needs. (3) Storage space for individual files and supplies. (4) Task lighting and electrical and communications outlets to support the individual's equipment. Pre-

wired workstations do not include movable furniture and furnishings such as chairs, stand alone file cabinets, coat hooks or racks, name tags, in and out file trays, and other similar accouterments.

Primary Facility

Main facility or facility complex required to perform an essential mission or function.

Real Property Development Plan (RPDP)

The constantly updated end product of the State's real property master planning process. It identifies the Adjutant General's goals and objectives for development and operation of the State and its supported installations and shall identify the major work to be done to real property to ensure continued mission performance. It becomes the basis to support acquisition, management, accountability, and disposal of real property and serves as a framework for allocating available sustainment, restoration, and modernization resources and to support requested military construction projects.

Real Property Improvement

An improvement which increases a real property asset's square footage, size, efficiency, or useful life. That is, if a replacement was undertaken to improve or expand the efficiency of an asset that was in good working order, then the replacement is a construction activity that needs to be capitalized. When a facility or facility component has failed, is in the incipient stages of failing or is no longer performing the functions for which it was designated, it is considered a repair activity and should not be capitalized.

Real Property Operations and Maintenance

That part of the facilities program that consists of the following activities: sustainment, restoration, and modernization; operations and maintenance minor construction; demolition not associated with construction; leases; identifiable incremental costs associated with facility activities; utilities; municipal services; facilities engineering services; and fire and emergency services.

Repair

The restoration of a piece of real property or a real property facility to such condition that it may effectively be used for its designated functional purpose. Repair may be to overhaul, reprocess, or replace deteriorated component parts or materials. It may also include the relocation or reconfiguration of land and building components and utility systems and the upgrade of the same to current building and other codes. Repair is an activity that may be a part of the sustainment, restoration, or modernization programs.

Restoration

Repair and replacement work to restore facilities damaged by lack of sustainment, excessive age, natural disaster, fire, accident, or other causes. It reduces the backlog of facilities rated C-3 and C-4 on the Installation Status Report. Restoration may be to overhaul, reprocess, or replace deteriorated component parts or materials to current industry standards. Restoration is also the relocation or reconfiguration of land and building components and utility systems and the upgrade of the same to current building and other codes. Restoration is a program, and as such must be distinguished from the activities that make it up: repair and construction.

Sustainment

Maintenance and repair activities necessary to keep an inventory of facilities in good working order. It includes regularly scheduled adjustments and inspections, preventive maintenance tasks, and emergency response and service calls for minor repairs. It also includes major repairs or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the life cycle of facilities. This work includes regular roof replacement, refinishing of wall surfaces, repairing and replacement of heating and cooling systems, replacing tile and carpeting, and similar types of work. It does not include landscaping, mowing, soil stabilization, and similar activities, which are municipal services. The activities of maintenance and repair make up the program sustainment.

Section III**Special Abbreviations and Terms**

This section contains no entries.