

## CHAPTER 5

EQUIPMENT, SUPPLIES AND TRAINING GUIDELINES

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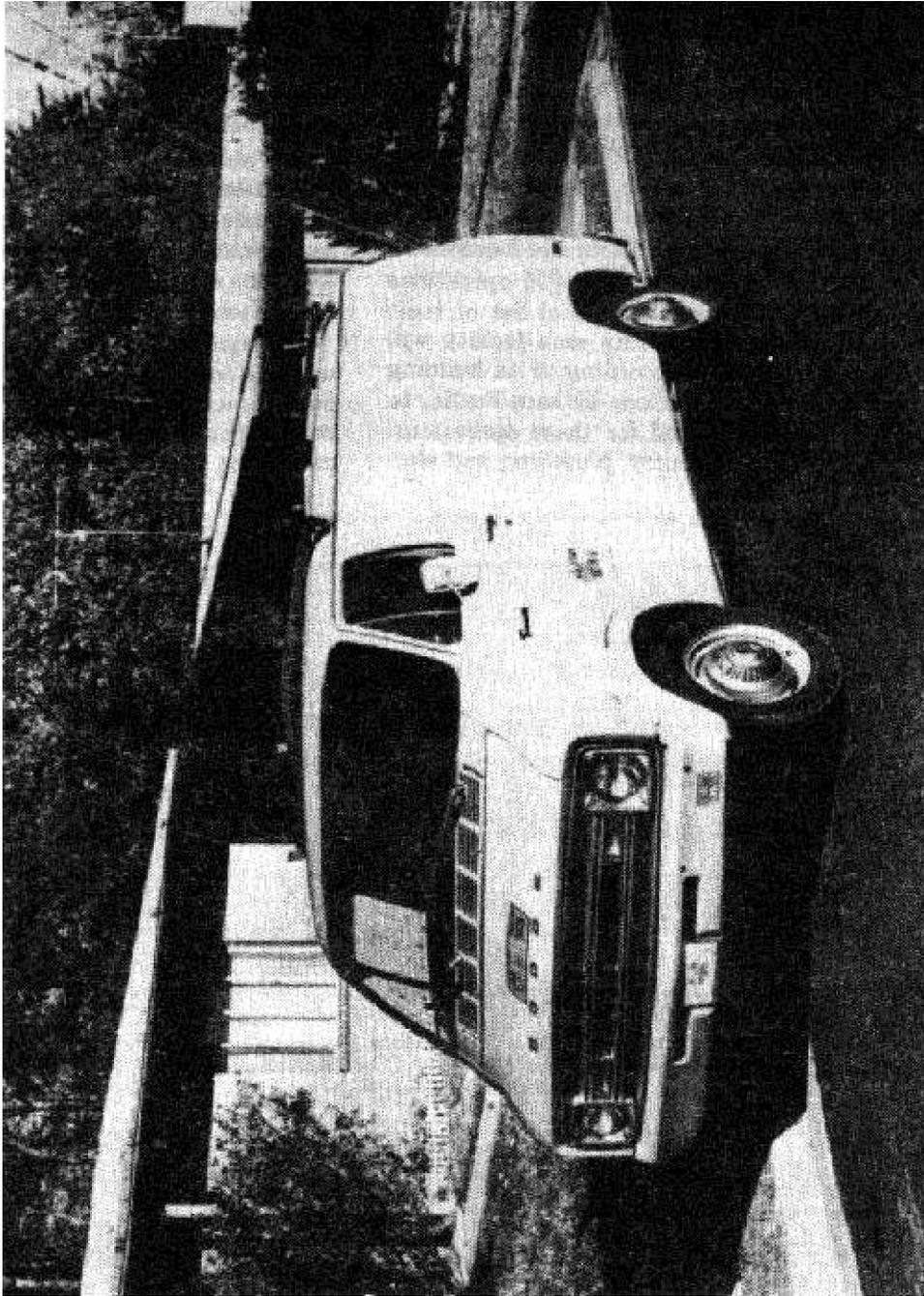
**5-1. General** Effective execution of a PM program requires equipment suited to the work, supplies, and proper training of PM workers. The Facilities Engineer is responsible for providing appropriate training and material support for PM to assure uniform performance of work.

**5-2. Preventive Maintenance Tools and Equipment** Tools and equipment necessary for PM operations must be available for use. No general list of tools will apply to all installations as each facility will have certain requirements according to its building types. Review the PM operations for each facility to determine the tools required for these operations. While basic tools for carpentry, plumbing and electrical work should

suffice for most minor maintenance and repair tasks, a record should be kept of facilities requiring special tools.

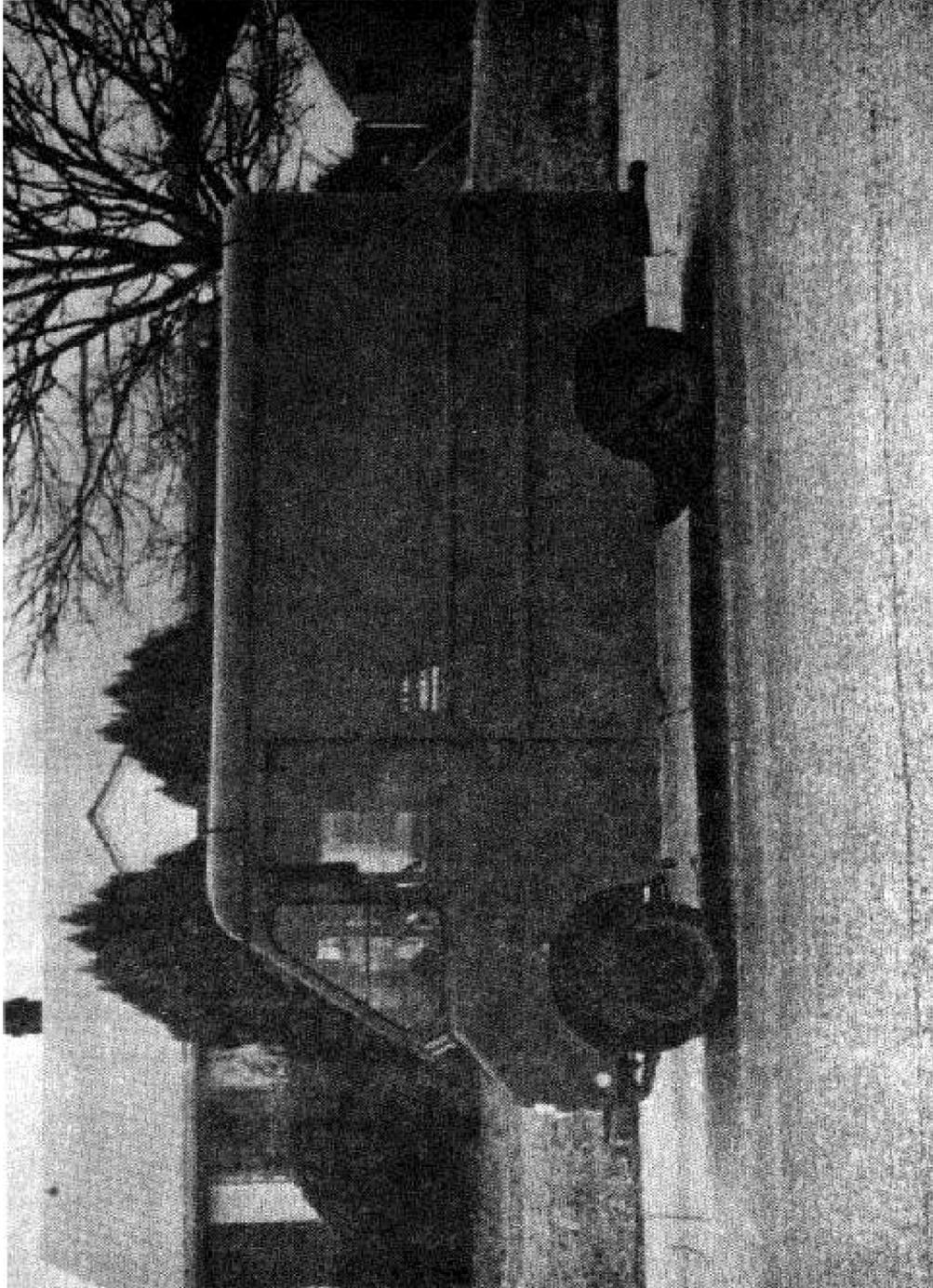
**5-3. Vehicles** Vehicle choice is an important consideration to transport personnel, supplies, and equipment, and to allow the maximum amount of maintenance and repair work to be performed away from the shop. The following types of vehicles are recommended for PM use.

a. *Econoline Vans*. These provide space for workers to perform minor maintenance under cover during inclement weather, have adequate room for supplies and equipment, and are best suited for two-man units. (Figure 5-1).



*Figure 5-1. Econoline Vans*

*b. Step Vans.* These are useful for larger PM units requiring more work space i.e. repairing doors. (Figure 5-2)



*Figure 5-2. Step Van*

c. *Mobile Shop Van.* Use of this vehicle allows repair work that is normally accomplished at the shop to be done in the PM area. The van is

provided with electrical hookup and power tools and equipment. Its use is limited to those areas where power is available (Figures 5-3 and 5-4).

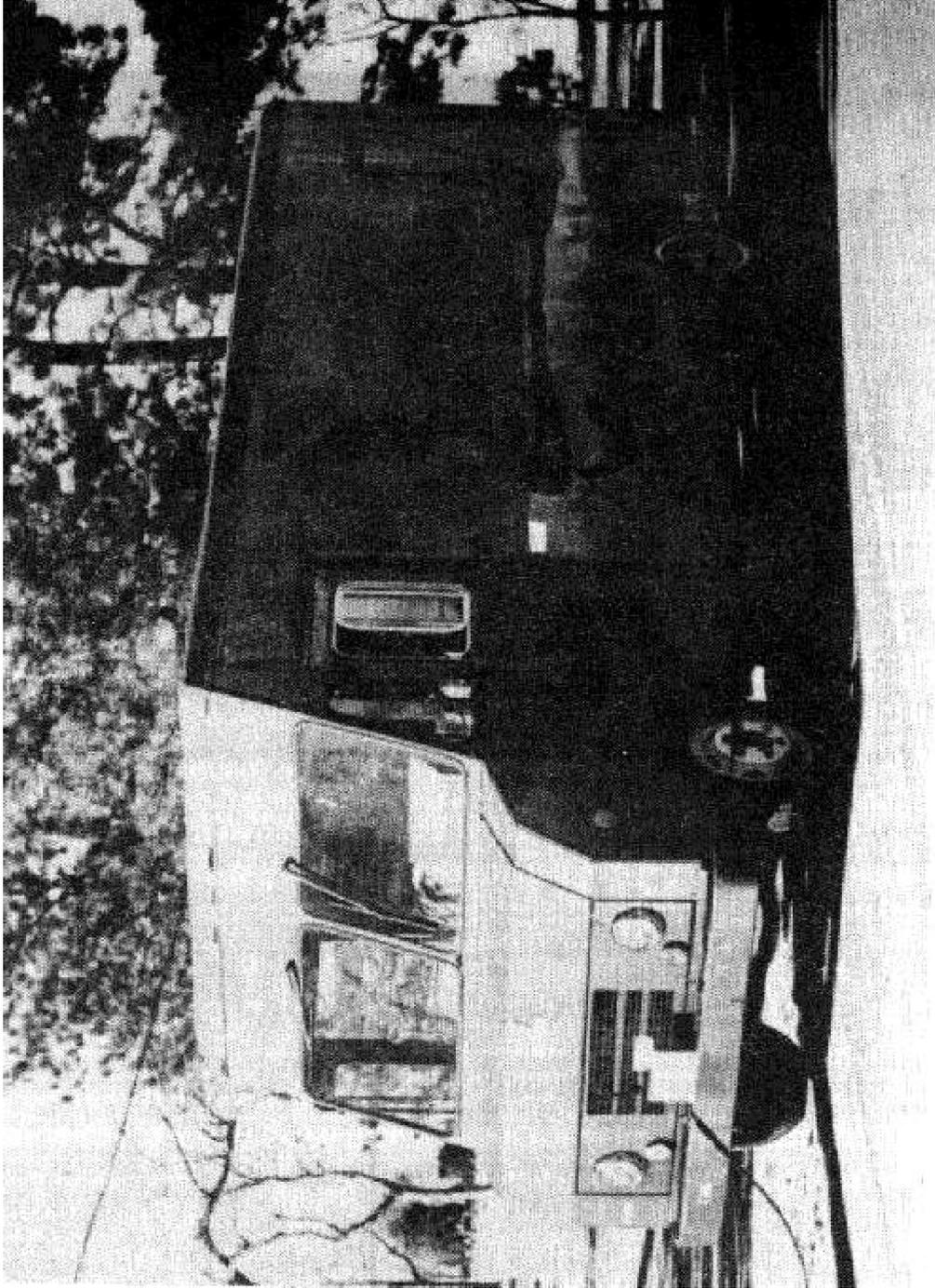


Figure 5-3. *Mobile Shop Van*

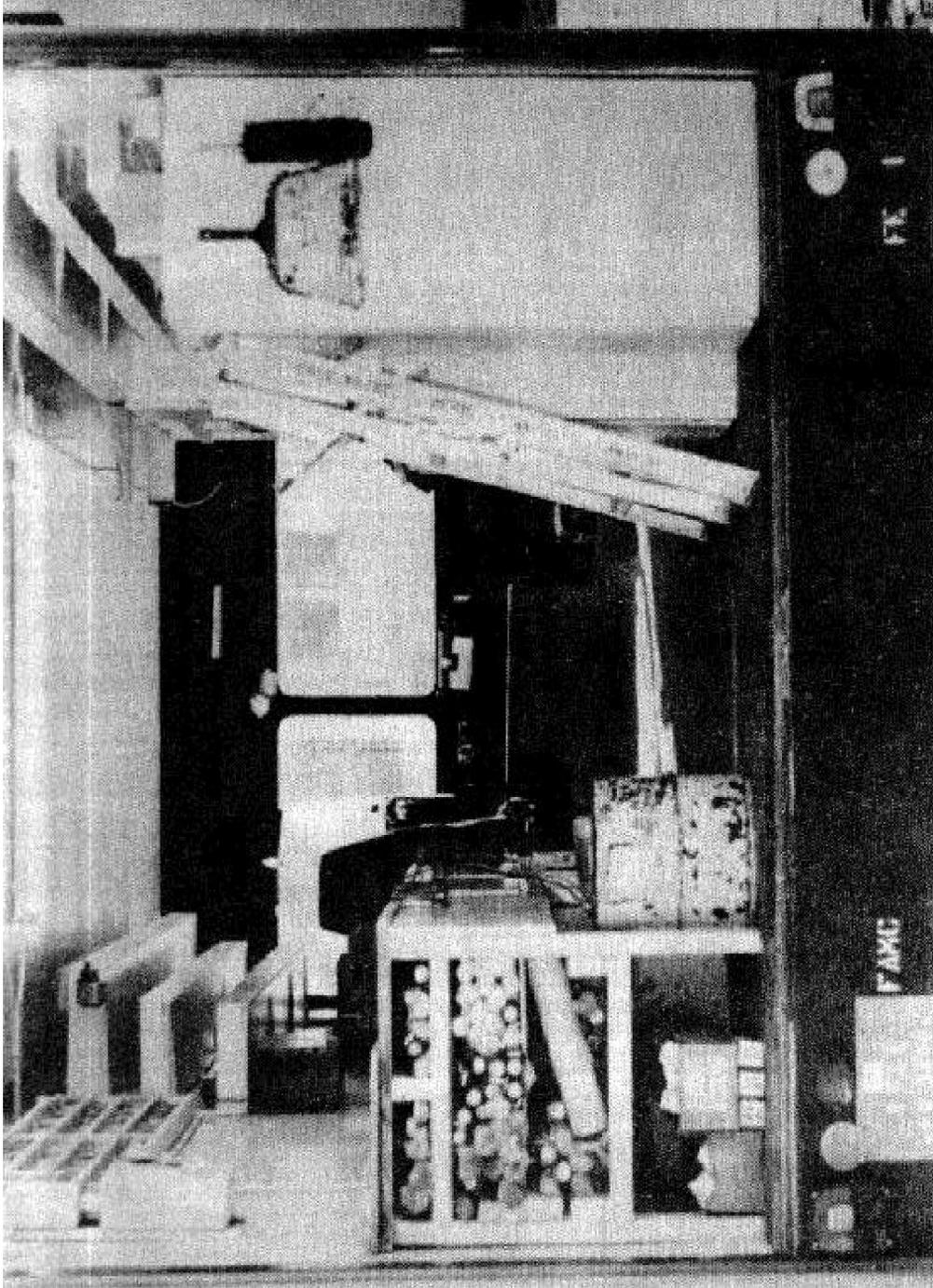


Figure 5-4. Interior of Mobile Shop Van

d. *Mobile Shop Units (Towed)*. These sheds are towed to areas where there is a relatively long term requirement for storage of tools and supplies (Figure 5-5).

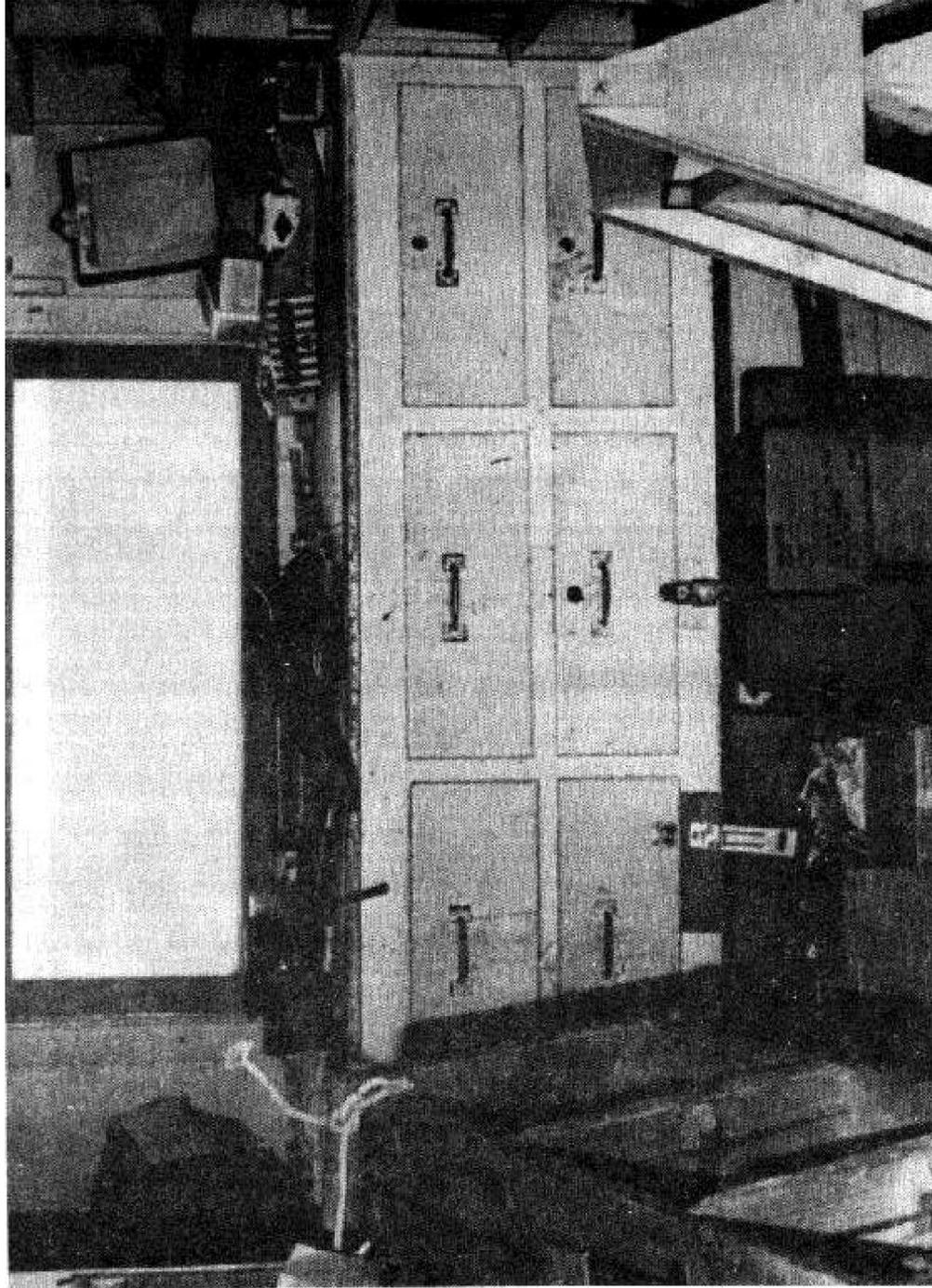


Figure 5-5. Interior of Mobile Shop Unit

*e. Scooters.* Scooters are used extensively by one man performing repetitive PM or covering large interior areas such as warehouses.

*f. Modified Push Carts.* These may be used in hospitals and multi-story buildings such as high-rise bachelor quarters.

**5-4. Materials and Supplies** Supplies must be readily available if the work is to be accomplished economically. Each unit should have required supplies in a specific place, preferably in individual vehicles with bins and compartments.

*a. Preventive Maintenance Supplies.* Prepare a master supply list of materials required in each PM area. Keep a fifteen-day supply of parts and materials in the PM vehicle, in accordance with this master supply list. The list should be kept in accordance with AR 420-17, Paragraph 7-24 "Shop/Truck Stock," and updated every three months.

*b. Self-Help Supplies.* Supplies will be made available to program participants.

(1) Maximum use should be made of the Self-Service Supply Center (SSSC) and/or Facilities Engineering Self-Service Section as a supply source for authorized personnel. These supply sources should be readily available to occupants of

family housing and bachelor housing. Additional supply facilities may be provided to serve isolated or remote areas.

(2) At remote locations, operating personnel should be provided with service stocks and authorized to use small purchase procedures to obtain supplies not normally stocked. (This can be accomplished within the framework of small purchase procedures as prescribed in Section III, Part 6, Army Procurement Procedures.)

(3) Supplies obtained, issued, or furnished for use by program participants will be costed to the applicable Army Management Structure Account (AR 37-100-XX) as prescribed in AR 37-108. The DFAE will be reimbursed by family housing funds for the issue of all items of supplies, material, and tools used in family housing areas.

(4) *Family Housing Authorized/Unauthorized Self-Help Supply List.* Self-Help Supply Centers will stock and issue supplies, equipment and tools authorized on the Family Housing Authorized Unauthorized Self-Help Supply List. This list and appropriate work orders are the authorization for issue. Figure 5-6 shows a sample Self-Help Supply List, which may be used by Facilities Engineers.

<u>Sample Family Housing Authorized/Unauthorized Self-Help Supply List</u>		
<p><b><u>AUTHORIZED ITEMS</u></b></p> <p><b><u>Electrical:</u></b>                      Adapter, electric                      Fluorescent starters                      Fuses/fusestats                      Miscellaneous gloves                      Wall plates/receptacle                      Wall plates/switch                      *Fluorescent tubes</p> <p><b><u>Door/Window Hardware Items:</u></b>                      Cabinet (catches, pulls, hinges)                      Closet door knobs                      Door stops                      Glass (misc. sizes)                      Glazing clips                      Glazing points                      Glazing putty                      Screen door (springs, catches, closers, pulls)                      Screen wire and screen retaining moulding                      Weatherstripping                      Window locks                      Window screen hangers</p> <p><b><u>Plumbing Items:</u></b>                      Aerators                      Ball (water closet tank)                      Basin stopper                      Beaded stopper chains                      Faucet (washers, screws, handles)                      Flush tank valve unit                      Liftwire (toilet tank)                      Plumbers force cup                      Shower head                      Sink spray head                      Sink spray hose                      Sink strainer                      Soap holders                      Toilet paper dispensers                      Toilet seat                      Towel bars                      Tub and tile caulking                      Water hose washers</p>	<p><b><u>Miscellaneous</u></b>                      Approved insecticides                      Clothesline wire                      *Curtain rods                      Fasteners (nails, screws, etc.) required for authorized work                      Fertilizer, lime mulch                      *Garbage cans                      Grass seed                      HVAC filters                      Spackling powder                      Spackling putty                      Venetian blind repair kits                      *Window shades</p> <p><b><u>Unauthorized Items</u></b>                      Decorative exterior lighting                      Drapes and curtains                      Fasteners (other than authorized work)                      Fencing materials                      Flood or spot lights                      Gasoline                      Hanger devices (for wall hung items)                      Intercoms                      Lawn ornaments                      Light bulbs                      Locksets                      Padlocks                      Paint                      Patio covers                      Patio lights                      Planters/flower boxes                      Play enclosures                      Sandpaper                      Shelving (for personal effect)                      Shower curtains                      Tarps                      Tools (all hand and power types)                      Traverse rods                      Venetian blind units</p>	<p>Wall hangers                      Wastepaper containers                      Wheelbarrows                      Window screen units</p> <p><b><u>Expendable Items</u></b>                      (included in quarters inventory)                      **Cutter, weed, swing blade                      Garden hoe                      Garden hoses                      Garden rake                      Garden shears                      Garden spade                      **Grass shears                      **Hedge shears                      Lawn rake                      Lawn sprinkler                      **Pruning shear</p> <p>*Direct exchange items                      **Where applicable</p>

Figure 5-6. Sample Family Housing Authorized/Unauthorized Self-Help Supply Lists

**5 5. Training of Personnel** PM personnel should have broad general knowledge of building construction and maintenance. They must be familiar with building fixtures and appurtenances and have experience with the performance standards established for all building trades. Training should be conducted in regularly scheduled sessions with a definite plan of instruction, including record keeping, obtaining cooperation of occupants, and all other details required for properly accomplishing the work. Signed evidence of satisfactory com-

pletion of training should be furnished to the unit leader. Training in the basic crafts normally is the responsibility of the foremen of appropriate sections or shops. Methods which may be used for training personnel:

(a) *Shop Training.* Training by job rotation among specialty shops within the FE organization.

(b) *On-The-Job Training.* Training received on the job with an active PM unit.