

# **MANUAL FOR SPACE UTILIZATION**



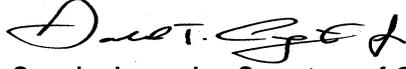
**BUREAU OF REAL ESTATE  
DEPARTMENT OF GENERAL SERVICES  
JANUARY 2004**

**260.1 AMENDED**

# Commonwealth of Pennsylvania

## GOVERNOR'S OFFICE

# MANUAL

Subject:		Manual for Space Utilization		Number: <b>M260.1</b> <b>Amended</b>	
Date: <b>March 11, 2004</b>	Distribution: <b>Special</b>	By Direction of:  <b>Donald T. Cunningham, Jr., Secretary of General Services</b>			

In accordance with *Sections 701(l) and 2402(a) and (d) of The Administrative Code of 1929*, the Department of General Services is responsible for carrying out the responsibilities assigned to the Governor and to the department regarding control and supervision of buildings, assignment of space, leasing of space, and modifications to existing buildings.

This manual provides guidance to all agencies occupying space in Commonwealth-owned or leased buildings; outlines standards for determining space requirements; provides guidelines for office planning and layout; and establishes procedures for allocating space and partition modifications.

Each Agency Head should designate a Space Coordinator to be responsible for handling all correspondence and inquiries concerning requests for space allocation, leases, partition modifications, and all other space related matters. This manual is intended for use primarily by Space Coordinators and others, as needed.

The Department of General Services, Bureau of Real Estate, Space Management Division, will assist agencies in designing office layouts, partitioning and building modifications, and all other areas of space utilization.

This manual can be accessed on the Internet site **www.state.pa.us**. Go to the State's home page. Click on "Government in PA," scroll down to "OA Directives Management System" and click on Manuals. When the screen appears, scroll down to M260.1.

**Manual M260.1 dated December 2, 1977, and March 3, 1980, Revision 1 dated February 17, 1978, and Revision 2 dated October 9, 1980, are rescinded.**

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**PART ONE**

**DEPARTMENT OF GENERAL SERVICES' SPACE STANDARDS FOR  
COMPUTING OFFICE AREA REQUIREMENTS**

The Department of General Services' (DGS) space standards are based on the area required for each individual workstation or function. These standards will be used for **ALL** agencies in preparing space allocation requests (STD-564) and when granting space allocations. Deviations from these standards may be authorized when conditions warrant, but only by written permission from the Bureau of Real Estate, Space Management Division.

The space allocation which best serves the interest of the Commonwealth will be chosen, with consideration given to such factors as the type of location of available space, special or unusual requirements of an agency, the justification of the agency's request, and the possibility of improving use of present space.

The Secretary of General Services will make the final determination for allocation of space.

**I. DGS SPACE STANDARDS.**

**A. Personnel.**

Executive I .....	Cabinet Officer	
Executive II .....	Deputy Secretary, independent Board Commissioner	
Senior Manager .....	Bureau Director, Executive Director, etc. (Full Height Office)	
Mid Mgr/Semi-Private Office .....	Division Chief, Attorney (full height), other position (Door Height Office) .....	requiring privacy
Supervisor/Technical	supervisory positions or technical positions requiring special equipment or positions involving 2-3 person meetings	
Analyst/Admin/Secretary	analysts, accountants, programmers, clerical positions with admin duties, etc.	
Clerical/Field	single task clerical positions, fiscal techs, field staff, interns, etc.	

The first four categories are constructed offices and the last three are workstations.

Executive I (Secretary) .....	425 sq.ft.	(Full Height Office)
Executive II (Deputy Secretary) .....	255 sq.ft.	(Full Height Office)
Senior Manager .....	225 sq.ft.	(Full Height Office)
Mid Mgr/Semi-Private Office .....	150 sq.ft.	(Door Height Office)
Supervisor/Technical .....	96 sq.ft.	(Workstation)
Analyst/Admin/Secretary .....	64 sq.ft.	(Workstation)
Clerical/Field .....	48 sq.ft.	(Workstation)

**NOTE:** For the Keystone Building **only**, Deputy Secretaries and Secretaries are permitted full-height private offices. This building was designed using a stricter space standard because of it being "new" construction by using 7x7, 7x9, and 12x12 workstations.

**B. Common Functions.**

**1. Conference rooms.** Space allocation based on 17 square feet per person. Conference rooms can vary from 102 square feet (6 individuals) to 850 square feet (50 individuals), depending on the average number of people to be accommodated.

**2. Reception areas.** Based on an average visitor load at seven square feet per person plus circulation space.

**3. Exhibit areas, duplicating rooms, libraries, mailrooms, and supply rooms.** Based on measurement of equipment plus circulation.

**C. Furniture and Equipment.**

These standards are to be used only if the designated furniture **IS NOT** included in the standards above. (Example, file cabinet in private office should not be duplicated.)

File Cabinet.....	7 sq. ft.
Supply Cabinet .....	9 sq. ft.
Coat Valet .....	4 sq. ft.
Lateral File Cabinet .....	10 sq. ft.
Plan File .....	26 sq. ft.
Copier .....	30 sq. ft.
Tables .....	25 sq. ft.
Computer Terminal .....	25 sq. ft.
Bookcase .....	6 sq. ft.
Printer/FAX .....	25 sq. ft.

Area requirements for other furniture and equipment can be determined by measuring the items.

**D. Eating Facilities in Leased Space ONLY.**

When an eating facility or snack bar is not located in the building to be occupied, such as in certain leased buildings, the standards listed below are to be used when requesting such facilities:

<b>Personnel</b>	<b>Area</b>
1 – 5	50 sq. ft.
6 – 25	100 sq. ft.
26 – over	4 sq. ft. per person

**II. SPACE STANDARDS FOR LEASED BUILDINGS.**

The standards in Section 1, DGS Space Standards, are to be used in determining area requirements for leased space. However, because of varying building and room sizes and configurations in leased space, limited deviations from these standards may sometimes be necessary.

### **III. SPACE ALLOCATIONS FOR LEGISLATIVE FUNCTIONS.**

Request for space allocation for the General Assembly should be submitted through the Chief Clerk of the Senate or the Chief Clerk of the House of Representatives to insure coordination and adherence to the DGS Space Standards.

### **IV. FEDERAL SPACE STANDARDS.**

Where federal requirements direct the use of federal space standards, agencies must estimate their space requirements in accordance with the federal standards. A copy of the standards MUST be on file with the Bureau of Real Estate, Space Management Division.

## PART TWO

### PROCEDURES FOR COMMONWEALTH AGENCIES

This section prescribes procedures for Commonwealth agencies to use when requesting space allocation; renewing, renegotiating or canceling leases; requesting partition modifications, planning or constructing new buildings; and reporting occupancy changes.

#### I. SPACE ALLOCATION REQUESTS.

The procedure below is to be followed by all Commonwealth agencies when requesting allocations of space. The Department of General Services **MUST** give prior written approval before any Commonwealth agency changes the amount or location of assigned space, or initiates, renews, or renegotiates leases. Additionally, all moves (including trading of space among agencies) must receive prior written approval. This procedure applies to all space allocation requests in buildings or property owned or leased by the Commonwealth.

1. The requesting agency should determine the required space through the use of this procedure and the DGS Space Standards shown in Part One of this manual.

2. Using STD-564, Request for Space Allocation, prepare a list of the personnel who will occupy the requested space. Include only those positions which are in the complement as approved by the Office of the Budget. If unusual circumstances warrant the consideration of future positions, these positions must be identified and complete justification provided.

3. Submit the request to the Department of General Services, Bureau of Real Estate, Space Management Division, Room 500, North Office Building.

4. Each request will be reviewed to insure conformance with the established space standards and overall space allocation plans. This allocation will be designated in net usable square feet, which is the usable area for work functions, such as office areas, storage areas, and conference rooms including circulation.

5. The requesting agency will receive an electronic notification from the Chief of Space Management of the amount of space allocated. The location of the allocated space will also be included in the notification, except in certain cases involving leased space.

a. After an allocation for leased space is approved, the requesting agency will submit a memorandum to the Bureau of Real Estate, Department of General Services, requesting proposals of suitable leased facilities available.

**NOTE: No state agency, other than the Bureau of Real Estate, may take any action regarding locating leased space or negotiating for leased space. These functions are reserved exclusively for the Bureau of Real Estate.**

b. All requests for renewal, renegotiation or cancellation of leases (even those not involving changes in the amount of space or rental) are to be submitted on an STD-291, Request for Lease Action and Budget Approval, directly to the Bureau of Real Estate. These requests should be submitted promptly to insure proper leasing arrangements.

**NOTE: In keeping with requirements for the inventory of Commonwealth real property, all changes of location or area occupied by any agency must be reported to the Bureau of Real Estate, Space Management Division. This requirement applies to both state-owned and leased properties. Specific questions should be directed, in writing, to the:**

Department of General Services  
Bureau of Real Estate  
Chief of Space Management  
Room 500  
North Office Building

## **II. PARTITION MODIFICATIONS IN DGS CONTROLLED BUILDINGS OWNED BY THE COMMONWEALTH.**

Procedures to be used when requesting the installation, removal or movement of partitions in DGS controlled state office buildings are contained in *Management Directive 625.1, Repairs, Alterations, and Improvements to Commonwealth Buildings Under the Direct Supervision of the Department of General Services*.

## **III. PARTITION MODIFICATIONS IN LEASED BUILDINGS.**

All partition changes made in leased buildings will be the responsibility of the owner. The Bureau of Real Estate, Department of General Services, will conduct all negotiations concerning partition modifications. The cost of any changes may be added to the rental cost. The following procedures are to be used when requesting partition modifications in leased buildings:

- 1.** The requesting agency is to prepare a memorandum asking the Bureau of Real Estate to conduct negotiations for partition modifications.

**NOTE:** This request should be submitted prior to consummation of the lease or the lease renewal. Requests submitted during the term of the lease, which would result in renegotiation of the terms of the lease, are to be submitted only when extreme circumstances dictate. This is necessary because of the multiplicity of agencies which must grant approval for renegotiation of terms and the resultant costs and administrative difficulties.

- 2.** Layouts are to be prepared. The memorandum and layouts are to be submitted, in triplicate, to the Director, Bureau of Real Estate. The agency will be informed of any decision and of the outcome of any negotiations with the owner. The Department of General Services and the requesting agency will inspect any partition modifications performed.

- 3.** For leasehold construction improvements costing less than \$10,000, refer to *Management Directive 625.6, Lease Amendment Exceptions for Leasehold Construction Improvements Costing Less Than \$10,000*.

## **PART THREE**

### **OFFICE PLANNING AND LAYOUT**

This part describes some of the principles of effective space utilization and office layout. It is intended as a planning guide for state agencies when new office space is needed, or when modifying existing space. In addition to this guide, the Bureau of Real Estate, Space Management Division, is prepared to assist state agencies in designing new office layouts.

The space standards in Part One should be used to determine the number of square feet necessary for specific office functions. Follow the procedure in Part Two to request the allocation of needed space and the modification of partitions.

The following should be considered when selecting and arranging office space:

- Size and shape of available space;
- Use of existing facilities (partitions, voice/data cabling, electrical outlets, etc.);
- Number of employees to be accommodated;
- Required furniture and equipment;
- Nature of work involved and its proper routing through the office;
- Comfort and convenience of employees;
- A pleasing appearance;
- Convenience to the public;
- Proper use of storage areas;

Suggestions to help in planning and preparing office layouts are as follows:

#### **I. WHEN TO REVIEW THE OFFICE LAYOUT.**

No organization should be constantly interrupted with changes just for the sake of change. On the other hand, the existing layout should be reviewed whenever:

- A significant increase or decrease in personnel occurs;
- Flow of work is changed as a result of new procedures;
- Additional working space is required;
- Work accumulates at one location while others wait;
- Personnel appear to have difficulty in moving about the office;
- Overcrowding of personnel or filing equipment is apparent;

- A change occurs in organization, i.e., new personnel, new authority, or new responsibilities;
- Alterations to the space must be made.

## **II. SURVEY WORK AND PREPARE A LAYOUT OF PRESENT OFFICE.**

Analyze office procedure, the tasks of the employees who are to occupy the space, and the overall function of the office. This preliminary study need not cover all the duties of individual employees, but should include enough to show the nature of the operations performed in each unit, the movement of work from one unit or section to the next, and the relative importance of the work to the operation as a whole.

A layout of the present office is often helpful when studying the requirements for a new arrangement. A study of this layout should show the working relationship between operations and units and indicate any duplication, overlap, or backtracking. The layout can also be used as a basis for discussion to reconcile any differences of opinion between the current and the proposed arrangements, as well as serve as a checklist of existing furniture and equipment.

A layout drawn to a scale of  $1/8" = 1'0"$  or  $1/4" = 1'0"$  is convenient, easy to understand, and provides ample space for notations. (Computer Aided Design (CAD) files for the majority of DGS controlled state office buildings are available by contacting the Space Management Division.)

## **III. PREPARE A LAYOUT OF THE PROPOSED OFFICE.**

After a space allocation has been approved by DGS, obtain a copy of the new office space. This should be used to plan the office arrangement.

This plan should clearly indicate the location of walls, windows, doors and direction of swing, columns, permanent partitions, radiators, voice/data connections, electrical outlets, and any other features that would affect the office arrangement. Check the drawings with the actual conditions in the building, when possible, and make corrections for any building alterations which may have taken place since the drawings were prepared.

In arranging the office layout, initially determine where the various functional units will be placed within the allocated space. As a rule, try several different layouts. Generally, the most important factor in determining layout is workflow through and between units.

Each work unit should be studied and clearly indicated on the layout. Using your present office layout as a guide, the proposed office should then be arranged to achieve an efficient workflow.

Major items of work should progress logically in a direct line through the office. Units having the greatest amount of contact should be placed adjacent to one another so that work flows with the minimum amount of travel from unit to unit.

Units having considerable public contact should be located so as to give visitors direct and convenient access. Place equipment, if possible, close to those using the equipment.

Open areas in offices should be used for large clerical operations. This will provide better supervision, communication, lighting, and ventilation.

After the location of the units have been determined, a more detailed layout of the proposed office can be prepared either by the selected furniture vendor, or in block plan format by the Space Management Division. This should show the arrangement of individual workstations and specific equipment, the placement of partitions and private offices, the location of files and storage areas, etc. The following should be considered when planning a detailed office layout.

#### **A. The Arrangement of Employees, Furniture, and Equipment.**

**1.** Personnel and furniture arrangements should allow for free, direct workflow. This is often one of the most important considerations in preparing an office layout.

**a.** Desks/workstations should be arranged to permit a straight-line flow of paperwork, avoiding crisscross patterns and backtracking. Whenever possible, employees who share work or duties should be located behind or to the side. Employees who must consult with each other or who have related work assignments should be grouped together in joint workstations.

**b.** When determining location, do not be misled by employees clamoring for a location close to a window. Let workflow be your guide. A survey of the employee's work habits and interpersonal contact will soon reveal whether or not close contact is required next to a supervisor.

**2.** Employees doing close work should be in well-lighted areas. Workstations should be arranged so that daylight is to the employee's side. No employee should face the light nor should chairs be positioned so that visitors face the glare from windows. When, under special circumstances, it is impossible to avoid facing employees toward the window, the use of vertical blinds is encouraged to block glare.

**3.** Employees in positions involving considerable public contact or communication with other sections should be located near public entrances. Personnel with confidential work should be away from public entrances.

**4.** The space between the back of a work surface and front of either another work surface, modular panel, or wall should be no less than 36 inches.

**5.** Aisles or passageways leading to main exits should be no less than 60 inches wide. Minimum aisle space between workstations should be 36 inches for secondary aisles, 44 inches for intermediate, and 60 inches for main aisles.

**6.** For maximum supervision, employees should be placed near their supervisor. For the sake of privacy, the supervisor's workstation may be separated from others by a few extra feet.

**7.** The physical necessity of all furniture and equipment in the office should be evaluated. Aside from unnecessary assignment of private offices, the retention of useless furniture is perhaps the greatest single deterrent to good space utilization. Determine if each unit of furniture or equipment serves a practical function. Any items being unnecessarily retained, perhaps because of prestige, sentimental value or habit, should be removed.

**8.** Frequently used items should be installed at points of need or at central points to minimize walking or waiting time of the users.

**9.** Commonly used machines, such as photocopiers, fax machines, network printers, and accessories and supplies should be centralized, if possible, for maximum convenience to all employees. Oftentimes, the primary need is to locate these machines where they cause a minimum of visual or acoustical disturbance.

10. Heavy equipment, such as high-density file units, should be located, when possible, close to load-bearing walls or columns, to reduce strains on joists and avoid floor overloading.

11. Coat racks or shelves should be located near exits but not places so that they block passages or interfere with employees sitting near them. They should be in plain view of employees.

12. Facilities must be planned for persons with physical disabilities.

13. Sufficient electrical outlets should be provided to accommodate anticipated needs. Dangerous overloading with "octopus" connections, as well as cords running across aisles, is to be avoided.

## **B. The Need for Private Offices and Partitions.**

The allocation of private offices is a major consideration in good space utilization (reserved for Bureau Directors and above as outlined in *Management Directive 625.1*.) The high cost of office space has forced management to a more conservative approach to the assignment of private (full-height) and semi-private (door-height) offices, especially for employees in the middle-echelon positions.

### **1. Disadvantages of Private Offices.**

a. **Cost.** In general, private offices are more expensive to construct and maintain.

b. **Practicality.** Many private offices are unnecessary and are maintained primarily for the prestige of the occupant.

c. **Flexibility.** Walls are a deterrent to the flexible utilization of space. Open areas provide an opportunity to balance growth in some areas and shrinkage in others.

d. **Communication and Control.** In many instances, private offices make communication and control more difficult.

e. **Ventilation and Lighting.** Walls and full-height partitions have the disadvantage of blocking light and ventilation from adjacent areas. They also hinder the circulation of air from general HVAC systems. A direct result is the notorious hot-cold syndrome which is prevalent in many of the older state office buildings.

### **2. Private offices should only be erected under the following conditions:**

a. **Position.** Bureau Director or above.

b. **Privacy.** Other positions with a **demonstrable** need for privacy.

3. The use of private offices and permanent partitions is often abused. When privacy is desirable, the use of door-height partitions should be strongly considered. These units are less expensive to erect, can be more economically and readily rearranged, and cause less interference with light, heat, and ventilation.

## **C. Conference Rooms and Areas.**

One of the most common reasons for private offices is the need for a private conference area. Rather than a mass allocation of private offices, however, the most practical solution is to provide several general small to medium size conference/interview rooms for the joint use of all employees.

The number of doorways needed for a conference room depends on the size of the room. At least one door should be placed in the rear of the room so that late arrivals do not disrupt meetings. Of course, state and local fire and safety regulations must be observed when planning a conference room.

#### **D. Files and Storage.**

1. Bulk storage should be limited. Prime office space should be used for daily working activities, and bulk inventories should be located in secondary spaces, such as basement areas.

2. Where possible, files should be placed against walls and arranged as functional room dividers. When ordering new file cabinets, consideration should be given to five-drawer lateral cabinets which will increase storage capacity 50 percent over conventional file cabinets.

#### **E. Existing Voice/Data Wiring and Electrical Outlets.**

1. Whenever possible, existing voice/data wiring and electrical outlets should be used when planning a new layout because of the expense and time required to install new wiring and outlets.

2. The positioning of floor outlets should be carefully considered since exposed outlets or wires running across floors may constitute a safety hazard. In general, the outlets or wiring should be placed along walls or under furniture.

## **PART FOUR**

### **THE OPEN OFFICE PLAN**

The open office plan is the recommended method of office management. Whereas, the conventional office plan is characterized by its full or door-height constructed walls, the open office plan is a large, open room free of conventional walls, corridors, and private offices. It is apportioned into clusters/teams of workspace, and the office is arranged in accordance with the workflow requirements. This type of arrangement permits executives or managers to be near the people with whom they work for ready consultation. There can be a fast rearrangement of workstations to accommodate organizational changes, with a minimum of time and expenses involved. The use of modular furniture can be enhanced and maintenance costs can be reduced in many instances.

Ideally, the open office plan should be established when a new building is being planned for construction (e.g., the Keystone Building). However, open office plans can be installed in existing buildings depending on the type of construction. A careful study must be made of such factors as the effect of support columns, lack of or possibility of installation of in-floor duct systems for voice/data and electric wiring, and the size and shape of the areas. Acoustical control must be realized in the open office plan, and this can be obtained through sound-absorbent partitions, carpeting, and window treatments. Where flexibility is of paramount importance because of frequent organizational or operational changes, the open office plan concept deserves **SERIOUS** consideration.

The open office plan is not necessarily adaptable in every function. Successful use of this approach requires a careful study by experienced space planners who can translate the needs of the user into an effective work environment. If any agency desires to use the open office plan approach, it is **STRONGLY** suggested that the Bureau of Real Estate, Space Management Division, be contacted for advice and assistance in planning for the office.

## PART FIVE

### BARRIER-FREE ENVIRONMENT

**The design and construction of many public buildings and facilities cause problems for the physically disabled that lessen the social and economic gains evident in the rehabilitation of these individuals. Architectural barriers make it very difficult to place the physically disabled in normal situations of education, recreation, and employment.**

The *Act of 1965, P. L. 459, No. 235*, requires that buildings and facilities constructed with Commonwealth funds adhere to the principles, standards, and specifications set forth in the Act. *Act No. 235* was amended by the *Act of 1974, P. L. 658, No. 216*, to extend the provisions to buildings and facilities leased by the Commonwealth. A barrier-free environment will be provided in state-owned or leased buildings and facilities unless the appropriate authorities have granted a variance.

The standards presented here are the minimum requirements necessary to establish a barrier-free environment for the physically disabled without loss of function, space, or facility. These standards are concerned with nonambulatory disabilities, semiambulatory disabilities, sight disabilities, hearing disabilities, and disabilities of coordination or aging. They are recommended for use in the design, new construction, and renovation of public buildings and facilities, and they apply to both temporary/emergency and permanent conditions.

1. To make a facility more easily accessible to individuals with physical disabilities, the ground should be graded to attain a level even with the normal entrance.
2. At least one walk serving each building and facility should be composed of a continuing non-skid surface at least 48 inches wide with no steps or abrupt changes in grade.
3. Parking spaces for the physically disabled should be as accessible and approximate to a building as possible, keeping in mind that they should also be in areas where the disabled are not compelled to wheel or walk behind parked cars.
4. Non-skid surfaced ramps should be at least 36 inches wide, equipped with handrails, and have level platforms at every turn or change in direction.
5. At least one primary entrance usable by persons in wheelchairs must be on a level accessible to elevators.
6. Doors should be double acting, operable by a single effort, and have a minimum opening of 32 inches.
7. Stairs should be of a non-skid surface, well lighted, and equipped with handrails.
8. An appropriate number of toilet rooms, water fountains, and public telephones should be accessible to and usable by the physically disabled.
9. Elevators should be accessible to and usable by the physically disabled at the entrance level and on each floor of multistory buildings.
10. All controls of frequent or essential use (i.e., fire alarms, lights, heat, elevators, etc.) should be placed within reach of persons in wheelchairs.
11. Every effort should be made to eliminate potential and actual hazards to physically disabled persons.

Persons responsible for implementing standards for barrier-free environments should be familiar with the Pennsylvania Department of Labor and Industry Regulations for Buildings and Facilities Usable by the Physically Disabled. In addition, the American National Standards Institute publishes specifications for making buildings and facilities accessible to, and usable by, the physically disabled.