A. COMMONWEALTH STANDARDS

PURPOSE OF STANDARDS

The purpose of the Commonwealth’s Standards for Leased Space is to meet the following goals:

- minimize cost;
- improve the quality and effectiveness of the work environment;
- promote equity among Agencies in the utilization and quality of space; and
- expedite the leasing process.

The “Standards for Facilities Planning” issued in DCAMM’s 1992 Space Planning Manual supplement existing DCAMM materials relating to standards, policies, and procedures for the acquisition of leased space. They are a vehicle for communicating to Agencies space planning techniques and tools, to enable Agencies to plan more efficiently and to minimize the need for outside design consultants. They are designed for use by non-design professionals.

The standards explain DCAMM's standards for space planning in the following areas: location, allocation of space, tenant improvements, building conditions, and landlord services. It emphasizes the utilization of space planning tools early in the acquisition process, during the determination of need. These tools include: utilization of space per employee, planning by zones within the office or facility, and the ratio of enclosed rooms, or built out areas, to open spaces. This Manual illustrates how these tools can be utilized in-house to develop schematic plans for space.

Before preparing these Standards for Facilities Planning, DCAMM conducted a study of the Commonwealth's lease portfolio and policies, to identify the types of facilities leased by Agencies and to develop baseline information on the implementation of standards. Additional information on existing leased space was gathered from site visits to selected leased offices. DCAMM standards were compared to those utilized by the private sector and other state and federal organizations, including the General Services Administration (GSA), Public Works Canada, and the states of New Jersey, Maryland, Illinois, California, and Florida.

Since the majority of the Commonwealth's spaces are for office use, the standards focus on the planning and schematic design of office environments. Additional space planning information is available at DCAMM for the following Special Facilities which are also part of the Commonwealth's lease portfolio: Courts, Education, and Residential Facilities.

LOCATION

Office location has an important impact on the Agency's ability to carry out its mandate; its accessibility to clients, service providers, and employees; and its operating efficiency. The goal is to identify the available property which is most cost effective and which best allows the Agency to carry out its mission in an effective and efficient manner.
SEARCH AREA

The search area is the geographic area within which proposed buildings will be considered. The search area boundaries should be defined as broadly as possible to provide a number of acceptable locations and insure sufficient competition. A search area may cover a broad region with many cities and towns, may include a small group of towns or a single town, or in the case of larger cities, may be limited to one or several neighborhoods.

Criteria that may impact the definition of the search area include access to transportation and proximity to other office facilities that are visited frequently by Agency staff and/or clients. Another important criterion that must be considered when defining the requested search area is current real estate market conditions and the availability of the type of space sought by the RFP.

TRANSPORTATION ACCESS

Access to an Agency’s office via major roadways or public transportation is important for clients, visitors, and staff. In urban locations, Agencies may rely more on public transportation to meet the needs of staff and visitors arriving from various parts of the state. In suburban areas and smaller cities and towns, where public transportation may be limited, Agencies may rely more on good access to major roads and highways.

PROXIMITY TO OTHER OFFICE FACILITIES

The operational efficiency of some Agencies may be enhanced by locating their offices close to other programmatically linked offices. If an Agency needs to be near certain facilities or offices to carry out its mandate, these needs should be explained in the Facility Plan for incorporation in the RFP.

PARKING

For purposes of facilities planning, there are two types of parking spaces: reserved and public. Reserved parking spaces are identified individually and reserved for the exclusive use of the Agency, primarily for state-owned vehicles. They are paid for by the Commonwealth and are normally included in the lease.

Public parking is stated as a need for an approximate number of parking spaces within a reasonable distance of the office location, to serve employees and visitors. These parking spaces are not identified individually and need not be controlled by the landlord. They can include parking lots, garages, and on-street parking. Public parking is not paid for under the lease. The number of public spaces needed is estimated by the Agency and is noted in the RFP to identify the basis for determining which proposed sites have adequate parking in the vicinity.

Accessible parking for persons with disabilities is a special category of public parking. Accessible parking spaces and/or a drop-off area should be available near the accessible entrance of a proposed building.

NEIGHBORHOOD COMPATIBILITY

Agencies should identify in the Facility Plan any special features of the facility or its operations that might affect its compatibility with the neighborhood of proposed buildings. If the Agency plans to have the office open for appointments during evening hours, this should be noted in the Facility Plan.
SPACE ALLOCATION

One of the most important steps in preparing the Facility Plan is the calculation of total square footage necessary to meet the Agency's functional requirements.

USABLE AREA

DCAMM describes square footage requirements based on Usable Area, which is the actual occupiable area of a floor or building used solely by the Agency. This figure represents an accurate reflection of the Agency's space needs so the size of the proposed space should vary as little as possible from the Usable Area listed in the RFP.

Usable Area is determined by measuring the entire floor area of the premises (or such other space) bounded by a line established by the predominant inside finish of the permanent outside building walls which abuts the floor (not from the inside face of windows) and by the interior surface of corridor walls or other demising walls. No deductions shall be made for columns or other projections necessary to the building structure or systems or for partitions subdividing the premises. Under no circumstances shall the Usable Area include elevator shafts, vestibules, stair enclosures, elevator machine rooms or other building equipment areas, janitorial, electrical or mechanical closets, loading platforms, or restrooms (unless they are included in the Agency Specifications and in addition to the restrooms required to meet code), irrespective of whether the Agency occupies the entire floor or the entire building.

To assist Agencies in determining an appropriate Usable Area for a particular facility, DCAMM has developed space standards for typical office functions. These standards have been carefully researched and are based on national practice and the Commonwealth's leasing experience over the years. The standards provide users with space sufficient to conduct business in an efficient manner. The amount of space allocated to each function includes allowances for furniture, equipment, and circulation within the workstation or support area.

Use of these standards will greatly facilitate the space acquisition process. At the same time, DCAMM recognizes that these standards may need to be modified, given the range of Agency needs. Agencies may develop, or work with DCAMM to develop, alternative standards for specialized rooms or workstations, based on specific functional needs. Following the selection of a particular location, when the Schematic Space Plan design is prepared for the space, some flexibility may be needed to adapt the program to the particular building selected.
Figure 1: Net Usable Area
UTILIZATION RATE

The space utilization rate is a planning tool to measure efficiency. Utilization rate is calculated by dividing the Usable Area by the total number of staff occupying that space. The DCAMM standard for a typical office ranges between 130 to 150 square feet per staff person. Agencies calculate the utilization rate for each Facility Plan and any request which falls outside of this range should be carefully reviewed for appropriateness. There will be instances when Agency functions will justify a different utilization rate.

OFFICE ZONES

DCAMM breaks down the typical office into four separate functional zones, containing the standard rooms, workstations, and areas listed below:

<table>
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<tr>
<th>PERSONNEL:</th>
<th>SUPPORT:</th>
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Some Agencies, as a result of their mission, will need additional space to support their work tasks. These non-standard functions/rooms should be described in detail by the Agency so DCAMM can provide guidance in developing an appropriate square footage allowance.

STAFF AREAS

Each staff person is assigned a workstation for performing job functions. These workstations form the core of the office environment and typically account for 60% to 70% of the office area.

Key programming questions

- How many staff persons will perform work functions at this facility?
- How many are full time positions? Part time positions?
- How frequently are part time workers in the office and on what schedule?
- Do you envision any major changes in the number of staff over the next several years?
- How are the staff positions organized into work units?

Identifying staff positions

This is an easy task for those offices where the weekly payroll accurately reflects who works at a particular office location. Some Agencies, however, have staff working in their office who may not be on their payroll. On the Facility Plan Form, Agencies should identify all staff who work in the office on a regular basis and therefore need workstation space.

DCAMM uses workstation allowances. The titles for each workstation type are generic; the Agency is responsible for translating its specific job titles into DCAMM’s personnel titles. To assist in this task, Agencies should use DCAMM's Workstation Standards on the following pages. The functional requirements of the Agency's different job classifications and the furniture in the footprint examples...
should guide the Agency in selection of the appropriate personnel standard. This approach results in a more productive work environment than the strict assignment of space by organizational hierarchy.

The Agency should carefully weigh its options for use of existing or procurement of new furniture and equipment. These items represent a significant financial investment for the Agency. Making wise decisions will have a significant impact on the productivity and morale of staff. The planning materials in this manual include space and tenant improvement standards applicable to the use of modular systems furniture and conventional furniture. Because modular systems furniture may reduce the square footage required for an office, and may create work areas more adaptable to changes in operations, its use may reduce the costs of an Agency’s lease and its office modifications to accommodate changing technology and programs. Therefore, DCAMM urges agencies to evaluate the advantages of investing in systems furniture.

**Part time staff**

Some staff work less than 3/4 time, have workstations at other office locations, may be out in the field for the majority of their workweek, or are seasonal workers. Agencies should create shared workstations by providing one workstation for every 1.5 part-time staff. Sharing of workstations by part-time staff should occur whenever schedules and operational requirements permit.
DCAMM WORKSTATION STANDARDS w/ MODULAR SYSTEMS FURNITURE

This page is currently being updated.
Please refer to page 4-64, see DCAMM Facility Plan, Form 1D
DCAMM WORKSTATION STANDARDS w/ CONVENTIONAL FURNITURE

This page is currently being updated.  
Please refer to page 4-64, see DCAMM Facility Plan, Form 1D
ENCLOSURE STANDARDS

Once a square footage allowance is established for each staff person, a decision must be made about how to enclose each workstation, based on functional needs. The three enclosure options are:

- **Full-height partitions** - these create private offices with floor-to-ceiling walls and a door. Private offices are reserved for executives and senior management staff who require privacy for conversations. Agency requests for private offices for other staff positions must be explained by specific reasons such as security or confidentiality.

- **Low-height partitions** - these define areas for private or shared workstations or work units. The low walls typically range between 42 and 60 inches, with no door. These partitions can either be constructed as part of the tenant improvements or purchased as furnishings which can be moved from office to office. Private cubicles are appropriate for supervisory staff and professionals who do focused work at their desk.

- **Open office areas** - these are open floor areas with multiple workstations that are appropriate for functions where communication and flow of work are enhanced by an open work environment. The careful location of rooms and tall furniture, such as storage and file cabinets, can be used to provide definition for different open office areas.

When assigning enclosure type to each workstation on the Facility Plan Form, review functional needs for: visual isolation to support task concentration; acoustical isolation to eliminate distracting conversations; privacy to enhance confidentiality; and security of records and/or equipment stored at workstations.

The use of private offices should be minimized. Excessive use of full-height partitions reduces flexibility and makes good space utilization difficult. Full-height partitions are approximately 25 percent more costly than low walls, include the additional expense of a door and frame, and have implications for HVAC and lighting systems. Agency furniture and the careful planning of room locations can be used to provide open work areas with enough privacy from nearby office activities. The total amount of space enclosed by full-height partitions, including private offices, conference rooms, storage rooms, staff support area, etc., should range between 30-40 percent of the Net Usable Area.

DEFINING WORK GROUPS

Most offices perform their functions in specialized work groups. For example, social service Agencies in Branch offices may be organized as an administrative unit and several case management units. Central administrative offices may include an Executive work group and several departments such as Personnel, Finance, Data Processing, Planning, etc. Each unit has an identifiable function(s) to perform and includes those staff positions that are necessary for performing or managing group-specific tasks. Work groups form the key programming units for schematic design. Large offices should consider reporting their square footage requirements in the Facility Plan by work group.

SUPPORT AREAS

Office support areas include the space and equipment that provide immediate task support for personnel workstations. The support functions typically include storing records and supplies, copying documents, and distributing mail; other support areas may include a computer room, library, and a staff support area. Some Agencies also require common workstations which are shared by several staff. In a typical office, approximately 15% to 20% of office space is used for support functions.

Note: DCAMM space standards are identified by italics under each room/area heading.
Records and Storage

varies from files and storage cabinets to large storage rooms

Offices need storage areas for such items as central files, office supplies, forms, etc. Some of these items may include important documents or valuables which must be protected from unauthorized access. For information on secure storage see "Protecting Important Items/Documents" in the Special Planning Issues section.

Key programming questions include:

How are active files stored?  Are they stored in a central location or dispersed per work group?  Describe the type and quantity of storage units.  Are any of the files confidential, requiring restricted access?  Are any changes, either in amount or in method of storage, projected for the next several years?

Does the office have any inactive files which must be stored on site?  What are the requirements for maintaining historical or out-of-date records? Describe the type and quantity of storage units. What are the other storage requirements for: office supplies, printed forms, equipment/furniture, etc.?

If the Agency has not done so prior to preparing a new Facility Plan, it should invite the Records Management Team of the State Secretary's Office to review current records management practices. Important factors for review include:

- timely disposition of obsolete records;
- transfer of inactive records to appropriate off-site storage locations;
- use of effective filing systems;
- familiarity of clerical staff with accepted filing principles; and
- introduction of alternate records formats (e.g. microfilm, microfiche, etc.) where appropriate and cost-effective.

The purpose of this review is to minimize inefficient records storage which wastes space and dollars. For maximum filing capacity per square foot, the Records Management Team recommends the use of seven-tier open shelving rather than file cabinets. With open shelving, the file folder is placed directly on the shelf in vertical position, held upright by shelf dividers. The files are easier to access and more files can be stored per square foot. The Agency purchases the seven-tier shelving as part of its furniture budget; construction of open shelving as part of the tenant improvements is not cost-effective for five-year leases and will not normally be approved by DCAMM.

Agencies should carefully review their different storage needs for:

- active files (in current use);
- inactive files which must be kept on-site (closed cases which are required by law to remain in an office for a specified period of time);
- office supplies;
- equipment and furniture that must be stored on site; and
- other items.

Items which have similar requirements for access and security can be stored together. In smaller offices, files and storage cabinets can typically be accommodated in DCAMM's circulation factor, so additional square footage should not be requested. These files can be located along circulation paths for easy access. Dispersing filing cabinets also distributes the live load throughout the structure and reduces the need to
request special loading requirements (see Special Planning Issues at the end of this section). Larger offices typically require separate storage rooms.

Storage requirements should be calculated by counting the different types of storage equipment and using the space standards on the following pages.

**Copy and Mail**

*varies from local tabletop to large room*

These basic functions, which are usually located in the same area, vary according to office size and equipment.

Key programming questions include:

*What copy equipment does the office own or lease? For each machine, describe the footprint size, wattage, and weight.*

*Who typically uses the copy equipment and how frequently?*

*Does the office provide any special printing services? If yes, describe the equipment that is used.*

*How much mail does the office receive daily and how is it distributed?*

*Are there any special mail delivery or postal requirements?*

*Does the office have a facsimile machine? Who is responsible for its operation?*

*Does access to any of these machines or equipment need to be restricted?*

Copiers range in size from small tabletop models to large, free-standing commercial copiers. Most copy machines can be located in open office areas near work groups that frequently use them. Open area locations provide more convenient access to users and dissipate the heat build-up from the equipment so that additional cooling equipment or special HVAC zoning is not necessary. However, some copiers are noisy so acoustical separation with low-height partitions or filing cabinets should be considered.

In a few instances, offices with bulk copy needs may have in-house printing equipment. This function may trigger delivery and storage requirements for bulk paper and forms which should be noted in the Facility Plan.

Mail functions include weighing and posting outgoing mail and sorting and delivering incoming mail. Agencies are responsible for purchasing all equipment and furniture for copy and mail functions. If the Agency will be receiving mail which is confidential or contains negotiables and is therefore a security concern, this should be noted in the Facility Plan. Bulk mail deliveries may trigger the need for a separate mailroom.

Branch office needs typically include an open copy/mail area with a worktable and storage shelves or cabinets for paper supplies. A few large Central offices may need a separate dedicated copy/mail room which will vary in size according to Agency equipment and furniture. Small copiers may also be located in areas near groups with frequent copy needs.

Review the Special Planning Issues section in this section to identify any need for Agency specifications that should be noted in the Facility Plan.
Figure 4: Partitions

Figure 5: File Capacity
This comparison illustrates that although both the open shelving and the file cabinet require similar floor area, the open shelving provides almost double the file capacity.
Figure 6: Storage Equipment

Tabletop copier:
25 sf/tabletop copier
Agency supplies table

Copy/mail area:
varying depending on equipment

Copy/mail room:
varying depending on equipment

Figure 7: Copy-Mail Equipment
Common Area Workstations
40 square feet/workstation

These are workstations shared by several people. Since they are not assigned to individual staff, they are listed under Support Areas rather than as personnel workstations. A common area workstation is often provided for specialized equipment such as a computer terminal.

Key programming questions:
Do office staff share any workstations? Describe what each common area workstation includes such as a computer terminal, drafting table, etc.
Which staff or work groups use these shared workstations? How frequently are they used (average number of hours per week)?
Do the common area workstations have any special buildout requirements such as electrical/telecommunications, lighting, flooring, security issues, etc.?

Staff Support Area
varies from coffee station to 200 square foot room

Agencies are encouraged to minimize the square footage devoted to a staff support area and to use food services provided in the building or the surrounding neighborhood. Small offices requiring only coffee on-site can provide a small cart or cabinet for the coffee machine.

Key programming questions:
Are any staff required to be at workstations at all times or after normal business hours?
Does the Agency have special needs clients who need access to food, snacks, or drinks because of the length of time they are in the office?
Is it likely that a remote office location will be selected which has no food establishments nearby?

Employee lounges may be appropriate in larger offices when the answer to several of these questions is yes.

DCAMM's standard employee lounge is non-plumbed, or "dry". Agencies are encouraged to use the building's common restrooms as a source of water. The standard employee lounge includes a 5-foot counter with cabinets below, adjustable to meet MAAB regulations. Landlords provide outlets for Agency-supplied appliances.

Library
varies from central bookcase to large room

A library can range from a bookcase with reference materials to a dedicated room for reference books, professional periodicals, and quiet study. It often includes an area for table and chairs so that reference work can be carried out near the books. If furnished, the library can be used for interviews or small meetings. If can also be used to store audiovisual equipment and Agency brochures/forms.

Central administrative offices typically have a small library, ranging from 200 to 500 square feet. Branch offices rarely need a dedicated library. For libraries with a circulating reference collection which require check-out facilities, see Education Facilities.
Large libraries with an extensive collection of reference materials and books may trigger the need for Agency specifications. See Special Planning Issues in this section.

**Computer Room**

*varies, depending on equipment*

Agency use of computers ranges from small personal computers to large mainframes. Large computer equipment, including gateways and modems, is frequently located in a dedicated computer room. In such cases, the Agency must specify room size based on the actual computer equipment. If a raised floor system is required to provide easy access to extensive electrical wiring, the computer room must accommodate a ramp. Computer equipment should be accessible on all sides, for ease of repair and for adequate ventilation.

Most large offices with administrative functions have one dedicated computer room, ranging in size from 125 to 500 square feet. Smaller Branch offices are more likely to need only a computer station in an open office area.

Computer rooms typically require a number of specialized buildout items and building conditions. See Special Planning Issues in this section.
Employee Lounge:
200 sf

Standard kitchen counter:
Accessible to persons with disabilities

Figure 8: Staff Lounge

Reference area:
12 sf/bookshelf

Library:
7 bookshelves x 12 sf/bookshelf = 84 sf
2 person conference table x 20 sf/person = 40 sf

Figure 9: Library

Computer Room:
varies, depending on equipment

Figure 10: Computer Room
Telecommunications Room

*varies, depending on equipment*

Most large offices with administrative functions may choose to combine their telecommunications room and computer room. The telecommunications room would typically house the dedicated power, equipment and any electrical adapters or receptacles required to operate the Agency’s telecommunication system, and an emergency power failure light. Typical installation would include a minimum of two (2) offset wall-mounted, studded plywood backboards 6’ x 8’, installed to provide for all telephone and data needs as confirmed by the Agency during the design phase, as well as a minimum of seven (7) 20-amp dedicated circuits (one dedicated to the security system), and seven (7) isolated ground quadplex outlets.

The telecommunications room would typically include HVAC design to maintain a room temperature of 70º Fahrenheit with the full complement of equipment in the room. Relative humidity should be maintained at 30% to 50%. The space should be kept free of dust, and no radio frequency interference (RFI) or electro magnetism interference (EMI) producing equipment should be located in the switch area. In some cases, fluorescent lighting is specifically prohibited in the telecommunications room.

MEETING AREAS

Meetings include face-to-face interactions between persons to discuss issues, interview clients, consult with others, conduct training, and run hearings. Meetings range in size from one-on-one to several hundred people. Staff meet with clients, the general public, vendors, auditors, and other staff. DCAMM has adopted standards for conference rooms, interview rooms, hearing rooms, and training classrooms.

Meeting rooms are planned for the average, not the peak, need. Plan the number of meeting rooms so they are in use at least 50% of the time; 75% usage is preferred. Most meeting rooms are used for multiple purposes: meetings, interviews, hearings, and training. Use the conference room standard for a multi-purpose meeting room. When a room is dedicated to a single use, such as hearings or training, use the standard appropriate to that use.

To increase efficient use of meeting rooms, consider the following:

- design for multiple uses rather than a single, dedicated use;
- maintain scheduling logs to maximize the sequential use of space;
- share meeting spaces with other departments or Agencies;
- utilize private offices to hold small meetings; and
- schedule infrequent large meetings in state-owned facilities or in short-term rental space.

Large Central administrative offices typically have several meeting rooms of various sizes to accommodate a variety of staff meetings, interviews, occasional training, and annual audits. Branch offices with consulting functions typically have one multi-purpose meeting room and several interview areas/rooms, depending on the type of interaction with clients. Branch offices with high volume processing functions usually need multi-purpose meeting rooms for conferences, training, and hearings. A Central administrative office typically devotes approximately 10% of the total office area to meeting spaces. A Branch office may have a higher percentage used for meeting areas if staff meet frequently with clients.
Interview areas
25 square feet per person (up to 4 persons)

Key programming questions:
Is there a need for staff to meet frequently with clients to collect or exchange information?
What is discussed in the interview and are there any requirements for client privacy or confidentiality?
How many people are typically in the interview and how long does it last? Are children ever present?
How many interviews are ongoing at any one time?
Are interview rooms used for any other functions?
Should the interview areas be enclosed with full-height walls, low-height partitions, or in an open area?
Are there any concerns for staff safety when interviewing clients?

Some Agencies have a high volume of client processing functions where staff meet frequently with clients. DCAMM encourages these Agencies to use separate interview areas for meeting with clients to restrict their access to personnel work areas. These interview areas can be shared by several staff for conducting confidential interviews with clients, and staff workstations can then be more open. The ratio of interviewers to meeting areas will vary with the frequency of use. In administrative offices with occasional interviewing activities, Agencies should plan to use conference rooms for such activities.

The degree of enclosure for interview areas depends on the confidential nature of the interview and the type of client being interviewed. Clients feel most comfortable talking about personal issues in a private setting undisturbed by other activities nearby. Clients discussing employment skills and needs, however, can do so in a more open area.

Conference Areas
20 square feet per person

Key programming questions:
What type of meetings occur in this office? For each type of meeting, what is the average number of people in attendance, the average length of time, and the frequency of the meetings (daily, weekly, monthly)?
How many different meetings are typically scheduled over the course of a day? How many are scheduled for any one hour?
How many people typically attend your largest meetings? How frequently do they occur? Is it necessary to schedule large meetings in your facility or can other nearby meeting spaces be used?

Most offices have at least one conference space which they use for multiple functions. In smaller offices under 2,000 square feet, it may be an open area defined by low-height partitions rather than a dedicated room. For Branch offices between 2,000 to 10,000 square feet, the Agency should consider programming one large multi-purpose space which can be subdivided by an operable partition into smaller conference rooms. Requests for meeting rooms larger than 600 sf should be carefully reviewed by DCAMM; see "Large Rooms" in the Special Planning Issues section.

Training
20 square feet per person

These are meeting rooms used for training staff or clients.
Key programming questions;
Does this office train staff or clients? If yes, what type of training is involved?
How large are the training sessions?
How frequently are they scheduled?
Is special audio-visual or other equipment used?

Small training sessions can usually occur in a conference room around a table. Training of larger groups may require a more traditional training arrangement with special audio-visual requirements; see "Classrooms" in Section 6, Education Facilities, DCAMM Space Planning Manual.

Hearings

Key programming questions:
Does your Agency conduct any hearings as part of its mandate?
Are there any regulatory requirements that may affect the type of facility in which the hearing is held?
Who typically is present at a hearing?
Are there any special audio-visual requirements?

Hearing rooms are special meeting rooms provided for legal and regulatory procedures. Small hearings can often be scheduled in conference rooms. Larger, more formal hearings may require a traditional courtroom arrangement; see Courtroom under Courts Facilities, DCAMM Space Planning Manual.
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Figure 11: Interview Areas

Interview area for 2 persons
2 persons x 25 sf/person = 50 sf

Interview room for 3 persons
3 persons x 25 sf/person = 75 sf

Figure 12: Conference Areas

Mini-conference room for 8 persons
8 persons x 20 sf/person = 160 sf

Small conference room for 12 persons
12 persons x 20 sf/person = 240 sf

Medium conference room for 15-20 persons
15 persons x 20 sf/person = 300 sf

Large conference room for 23-30 persons
23 persons x 20 sf/person = 460 sf

Figure 13: Training Areas

Training for 8 persons in conference room
8 persons x 20 sf/person = 160 sf

Training for 15 persons in classroom
15 persons x 20 sf/person = 300 sf

Operable partition (optional)
One-on-one hearings (use interview standard)
2 persons x 25 sf/person = 50 sf

Small hearings in conference room
6 persons x 20 sf/person = 120 sf

Formal hearings:
for gallery seating, use 10 sf/person
for hearing area, varies (see Courtroom)

Figure 14: Hearings Areas
ENTRY AREA

Visitors to offices can include the general public, clients of state services, staff from other Agencies, and other professionals and business persons. Some visitors have scheduled appointments; others seek information and services on a walk-in basis. Many offices require some type of reception area at public entry points to control and direct this traffic.

Key programming questions:
Who visits your office during an average week?
What is the nature of the visits? Do they include meetings, interviews, counter transactions?
What percentage of the visitors have appointments and what percentage are walk-in traffic?
Over the course of an average day, how many visitors come to this office?
On average, how many visitors are waiting at any one time of the day? How long is the average wait?
  Do they need to stand or sit while waiting?
Are there peak times when there is increased visitor traffic? When do these peak times occur (daily, weekly, monthly, seasonal)? How many visitors are present at peak times?
Do you use a receptionist(s) to deal with visitors? What are the receptionist's responsibilities? What type of workstation is required? Are there any security issues that need to be addressed at the receptionist's desk?
Is there a need to restrict visitors' access to parts of the office? What are the security concerns?
Are there any special facilities that are needed to support waiting activities?

Control of visitor traffic is essential in all state offices, for security as well as to minimize disruptions in the personnel work area. DCAMM recommends that each office have one central reception area for visitors rather than scattered waiting areas throughout the office. This arrangement provides greater control of visitor traffic, is more space efficient, and reduces staffing requirements for reception functions.

Waiting areas are planned for the average, not the peak, visitor load. Less than five percent (5%) of the Usable Area in a standard office is devoted to entry functions. This percentage increases in offices with a high volume of walk-in traffic. Review "Security: Controlling Public Access to Office Areas" under Special Planning Issues.

Receptionist
50 square feet/receptionist

Most offices have one staff person responsible for handling visitors. In larger Agencies with high traffic volume, two receptionist workstations may be provided to deal with the volume of visitors and to provide coverage for one another when one is away from the reception area.

Seating area
10 square feet/person

Seating in waiting areas is provided for visitors with appointments and for those who have to wait for any length of time. Plan for the average, not peak, load.
Transaction Counter Positions

40 square feet/person

Some offices have high-volume transaction processing operations where the public comes to file forms, pay fees, obtain licenses, etc. These offices may require transaction counter positions with specialized equipment and storage areas for forms, which are very similar to teller positions in banks. Use the 40 square feet/counter position to establish square footage requirements for the Facility Plan. Each Agency is responsible for supplying specifications for specialized transaction counters.

Queuing Area

8 square feet/person

For quick processing transactions where visitor traffic is walk-in rather than by appointment, visitors can stand in queue. Plan for the average number of visitors waiting in line for a transaction.
Small seating area:
15 persons x 10 sf/person = 150 sf
1 receptionist x 50 sf = 50 sf

Large seating area:
60 persons x 10 sf/person = 600 sf
2 receptionists x 50 sf each = 100 sf

Queuing area (with transaction counter positions):
180 persons x 8 sf/person for queuing area = 1,440 sf
40 sf/counter position x 10 positions = 400 sf

Figure 15: Entry Areas
NON-STANDARD ROOMS

Some Agencies may need additional areas or rooms to support their office mission, such as a children's play room or a photo ID room. In general, non-standard rooms occur more frequently in larger offices. Non-standard rooms can be assigned to any of the four zones in the office.

Non-standard rooms must be described in detail in the Facility Plan to facilitate review for appropriateness and space efficiency. Square footage allocations will be based on the furniture, equipment, and immediate circulation necessary to support the non-standard work functions.

Key programming questions include:
* Will any personnel have workstations within this room/area?*
* What type and size of equipment is located in this room?*
* Are there any special mechanical or electrical requirements?*
* What zone does this room belong in?*

TENANT IMPROVEMENTS

DCAMM standards for tenant improvements are stated, where feasible, as performance specifications. Landlords must substantially meet these specifications or offer alternatives, subject to approval. The specifications are organized as follows:

- Walls
- Doors
- Hardware
- Finishes and Specialties
- Mechanical
- Electrical
- Assemblies

The Assemblies category is used for those instances when a number of different specifications have been grouped together for a particular function or installation.

WALLS

Walls are used to enclose space for purposes of acoustical and visual privacy, fire safety, and security. DCAMM uses STC (Sound Transmission Coefficient) ratings to specify minimum acoustical performance requirements. STC ratings are an industry standard measure of reduction in airborne noise transmission of construction assemblies. The higher the number, the less noise transmitted. Specific STC ratings may be achieved by a number of different construction assemblies. The Gypsum Association is one publication source of tested assemblies.

Demising Walls

Demising walls separate Agency space from other tenants or building support areas. They must meet a 45 STC rating and any applicable code requirements for fire separation. Demising walls extend from floor to structural ceiling.
Full-Height Partitions
The standard full-height partition must meet a 40 STC rating which provides adequate acoustics for normal office functions.

Low-Height Partitions
These partial walls are appropriate for work areas which require focused visual attention and some level of acoustical privacy. Forty-eight (48) inches is the typical height for low-height partitions, but the Agency has the ability to specify up to three different heights in the final design stage. A standing person can look over a partition of sixty (60) inches but still have adequate privacy when seated. Lower partitions allow standing persons to see more of the office area which is important if security is a concern. Low walls also increase the sense of openness and natural light. Higher partitions tend to have the same effect as regular walls so their use should be minimized.

DOORS
Many of the door specifications are dictated by fire codes and accessibility regulations, which the landlord is responsible for meeting.

Standard Door and Frame
The standard door is a solid core wood door in a steel frame. The door can be finished with paint or stain and polyurethane. The steel frame is painted.

Vision Panel Doors
The vision panel door is standard for all passageways and habitable rooms, including meeting rooms and private offices. It includes a 9" wide x 30" high window located at eye level to provide opportunities for persons walking by to see what is happening in a room or hallway without disrupting ongoing activity. The vision panel door is a more cost-effective means of providing visual connections between rooms than the door sidelite.

Tenant Entry Door
The tenant entry door is a wood or metal door which can be finished with paint or polyurethane. The entry door assembly includes one 18" to 36" wide safety glass sidelite adjacent to the door so that the Agency receptionist can see those approaching the entry.

HARDWARE
Similar to the door specifications, many of the hardware specifications are dictated by egress codes and accessibility regulations.

Standard Hardware Package
The lever handle latchset is standard on interior office doors.

Locks
Interchangeable core cylinder locks are standard at storage and equipment rooms and at tenant entry doors. Locks for other rooms are specified on a room-by-room basis.
Heavy-Duty Hardware Package
Heavy-duty hardware includes a dead bolt lock and is used in locations where security is a concern. Up to two additional deadbolt locks can be requested if security issues warrant an increased level of protection for property or staff.
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8' Room Height

72" eye level standing
60" seated
48" seated

Relationship of panel height to privacy

Figure 16: Walls.

Vision panel door

30" 9"

Tenant entry door

3'-0" 1'-6"

3'-0"

lock (optional)

handle

Standard hardware

Figure 17: Doors and Hardware
SPECIALTIES

Ceilings
The standard office ceiling is a suspended T-grid system with lay-in acoustical tiles, at a minimum
dimension of 2' x 4' x 5/8". The suspension system usually consists of lightweight metal runners hung
below the supporting superstructure. This system creates a space, or plenum, between the finished ceiling
and the structural floor above where ductwork, piping, and wiring can be run out of sight. DCAMM
recommends that the ceiling be a minimum of 8’ high but no higher than 11’ to avoid excessive energy
costs.

An existing ceiling is acceptable if it is level and meets the standards for new construction; soiled or
damaged ceiling tiles must be replaced. An exposed ceiling is generally acceptable only in historic
renovations if the visual appearance is suitable for an office environment. All utilities in the ceiling area
must be neatly organized and painted. Exposed ceilings also raise concerns about acoustic qualities of the
space.

Floors
Of all office finishes, floors are subject to the greatest wear and tear. Flooring should be evaluated for its
durability, acoustical properties, and ease of maintenance. The landlord is required to meet all federal and
state accessibility regulations so that visitors or employees who are disabled can move easily and safely
throughout all parts of the office.

Carpet
Carpet is the primary office floor material and is standard in habitable rooms and general circulation
areas. It is used throughout the office because it is attractive, comfortable, and sound-deadening. It
reduces impact sounds such as footsteps, scraping chairs, and shuffling. It is usually glued directly to the
concrete subfloor to prevent wrinkling, bulging, and movement of the carpet. DCAMM's carpet
specification calls for tight weave, stain resistant nylon with a five-year guarantee and anti-static
warranty. Where there is excessive wear and tear, such as under workstations or at the copy machine,
Agencies are encouraged to provide carpet protector pads. Where floor access is required, such as in a
computer room, matching carpet tiles are used.

Vinyl Composition Tile (VCT)
Because of its durability and ease of maintenance, VCT is recommended for:

- high volume waiting areas;
- non-habitable rooms for files, supplies, mail, large copy functions, computers, and equipment; and
- staff support areas.
Figure 18: Ceilings

Figure 19: Floors
Wall Finishes
The landlord is responsible for repairing and patching any existing walls so they match new partitions.

Paint
All walls are painted with one coat of a primer/sealer and two coats of eggshell or semi-gloss latex paint. The Agency can select up to three different colors to use throughout the office. Colors should be carefully considered as they affect the image and mood of an entire office. Colors can make an office dull or lively, depressing or cheerful. In general, greens and grays are neutral; reds are excitable; and blues have the reverse effect. Any of these colors can be used but a balanced color scheme is necessary. A mix of colors provides variety and is a good means of defining different areas within a larger office. The best solutions often involve neutrals for major areas and stronger accent colors in smaller areas.

Once the construction documents have been prepared, the Agency meets with the landlord to discuss colors for the carpet, VCT (if installed), walls, doors, trim, and window coverings. Landlords often provide color boards which illustrate different color schemes using the various materials and finishes that will be installed in the office.

Protective Wall Covering
In high traffic areas such as large public lobbies where clients wait for any extended period of time, the wall surface should be durable enough to withstand heel prints of those standing against a wall, chairs hitting the wall, and children's marks. The Agency can specify the need for a durable 36" high wainscot of either vinyl wall covering or epoxy paint, capped by a chair rail.

Specialties
Signage
The landlord provides standard signage, which may be changeable inserts or applied letters, for room numbers and room names. Building and floor directories are also provided so that visitors can easily find their destination. Agencies with large offices and many visitors may require a more detailed signage system which directs visitors to specific rooms, functions, or services. All signage should meet applicable accessibility requirements.

Window Coverings
The landlord provides window coverings for all exterior windows. These can be either thin horizontal aluminum blinds or operable vertical blinds. They are used to reduce glare on sunny days and to darken rooms for audio-visual presentations. The Agency selects the color of the blinds, keeping in mind the overall color scheme of the office.

MECHANICAL
The quality and temperature of the air is the single most important variable in staff productivity and satisfaction levels. If the air is stale and too warm, occupants will not be able to focus on the task at hand. A good heating, ventilating, and air conditioning system (HVAC) provides office users with an environment that is free from drafts and cold surfaces, that has a controlled indoor air quality, and in which the air is neither noticeably hot or cold, too humid, or too dry.

DCAMM relies on the State Building Code to establish minimum performance requirements for the HVAC system. The Code references other technical standards utilized by the mechanical engineering profession. Detailed design requires substantial technical knowledge which the landlord provides through his/her engineering subcontractors. Because the HVAC system can be difficult to evaluate, DCAMM or
the Agency can request that engineers provide appropriate certification that the HVAC system meets the performance requirements as stated in the RFP.

**Heating and Air Conditioning System**
The landlord is required to maintain the temperature throughout the premises during working hours within 70º and 74º Fahrenheit in the wintertime and within 72º and 76º Fahrenheit in the summertime. Most offices are large enough to be divided into several zones. Each zone is provided with a thermostat control which is secured by locked cage or key allowing only authorized staff to alter settings. DCAMM requires that the HVAC system be fully automatic.

**Ventilation**
Proper ventilation within the office space is a function of fresh air intake and air movement. Outside air is introduced into the space through ducts, windows, or infiltration, and is circulated by fans. Outside air must be mixed with the air in the office space in order to replenish the oxygen supply, to dilute the particulates, toxic pollutants, and odors in the space, and to control humidity. Fresh air intake is necessary to ensure the users' health and comfort. In general, all occupied spaces will have mechanical ventilation, with the exception of rooms with operable windows.

Criteria for replenishing office air with outdoor air have been reduced to minimum levels to conserve energy. In general office areas, the landlord is required to provide 20 CFM (cubic feet per minute) of ventilated air, at least one third of which is outdoor air, per person. Rooms such as restrooms, conference rooms, lounges, and special equipment rooms, are required by code to have higher ventilation standards to compensate for increased air fouling activities.

As the air within the office is recirculated and outside air is brought in, the particulates in the air are removed by filters. Adequate filtering is important to the health of users and affects the cleanliness and appearance of the office. Landlords are required to filter air in accordance with manufacturers' recommendations and to clean or replace filters on a regular basis. If filtering is not sufficient, dark areas will form on surfaces surrounding the diffusers that supply air to the space.

**ELECTRICAL**

The RFP states that the cost of electricity for lighting and office equipment is to be estimated separately in the rental cost section of the proposal form. This gives the Agency the option of paying these costs directly to the utility company and deducting the amount indicated from the total proposed rent.

Each Agency space is provided with an electrical system which is complete, tested, and ready for operation for both power and lighting distribution, with its own locked power panel separate from other tenants or building services. This ensures that unauthorized persons cannot interrupt the Agency's power supply. Within the office space, power can be distributed in a number of different ways: partition/column distribution, ceiling distribution with power poles, flat wire cabling, raised floor systems, and system furniture distribution. Each distribution system has a different impact on the space layout process.
Lighting
The landlord provides a uniform lighting level of 65 footcandles at desktop height. This performance standard addresses concerns for visual comfort as well as energy conservation. It provides adequate lighting for normal office functions. For specialized functions such as drafting or bookkeeping where higher lighting levels may be required, Agencies should provide task lighting.

The 65 footcandle lighting level can be accomplished with 2’ x 2’ or 2’ x 4’ recessed fluorescent fixtures with energy saving ballast and cool white lamps. Replacing existing acrylic lens with one inch, silver-finish paracube or parabolic lens fixtures is recommended. Light switches in public access areas are tamperproof to avoid unauthorized access to lights in areas where people congregate.

Electrical Outlets
DCAMM uses the standard of two duplex outlets per 75 square feet or per workstation, whichever is smaller, in open office areas. Four outlets are provided in private offices and rooms. For rooms larger than 200 square feet, an additional outlet is added for every 150 square feet. This will provide adequate power supply for typical office equipment. To ensure that power is available for special equipment, Agencies are responsible for listing in the Facility Plan all equipment rated at over 1,000 watts or having special voltage requirements. The need for dedicated lines should also be identified.

Telephones
The landlord provides and installs a complete wiring system for the leased space to support the Agency's telephone system, and provides and installs adequate plywood backboard to be wall-mounted for telephone and data equipment needs, punch down blocks, rack-mounted modular RJ-45 patch panels, light and convenience outlets. The landlord shall pre-wire each telephone jack/extension from the modular patch panel in the telecommunications room/telephone switch room to the extension location. Pre-wiring shall consist of twin, four (4) pair twisted pair (4-pair voice, Category 5, 24 AWG; 4-pair data, Category 5, 24 AWG) unshielded cable enclosed by a thermoplastic jacket connecting to dual-faced modular RJ-11 or RJ-45 jacks as required by the voice station equipment at the extension. Exact jack type shall conform to the Commonwealth’s Governor’s Advisory Council on Information Technology (GACIT) wiring standards and guidelines. Station wire to the telephone closet shall terminate (punch down) into a 110-type block. Cables must be cut down in numerical order. Cables must include six feet of additional length, looped in the room to allow for future adjustment of blocks. All station wire shall conform to the Commonwealth’s GACIT wiring standards and guidelines, including a physical wire test with signed acceptance. Communications outlets are installed in each office or workstation or per every 150 square feet.

Data Wiring
Using the Commonwealth's GACIT wiring standards and guidelines, the landlord provides and installs a complete data wiring system for the leased space and provides and installs adequate plywood backboard to be wall-mounted for telephone and data equipment needs, punch down blocks, rack-mounted modular RJ-45 patch panels, light and convenience outlets. The landlord pre-wires each data jack/extension from the rack-mounted modular RJ-45 patch panel in the telecommunications room/telephone switch room to the jack location. Typically, pre-wiring consists of twin, four (4) pairs of ICS Category 5 balanced twisted pair (4-pair voice, Category 5, 24 AWG; 4-pair data, Category 5, 24 AWG) unshielded cable enclosed by a thermoplastic jacket connecting to dual-faced modular RJ-45 jacks as required by the voice station equipment at the extension. Exact jack type should conform to the Commonwealth’s Governor’s Advisory Council on Information Technology (GACIT) wiring standards and guidelines. Each of these wire pairs would terminate in a 110-type block in the telecommunications room/wiring closet and should not exceed 100-meter insertion loss. The landlord should supply baluns, patch panels and equipment cabling as required by the Agency during the design phase. All data wire shall conform to the
Commonwealth’s GACTT wiring standards and guidelines, including a physical wire test with signed acceptance.

ASSEMBLIES

Staff Support Area
The DCAMM standard for a staff support area includes an adjustable height countertop with cabinet below, to meet accessibility requirements, and adequate electrical outlets to service Agency-supplied appliances such as a microwave oven, refrigerator, and stove.
Fixed wall and column system.

Skirting trunking can be a cost-effective system in shallow space and allows for easy alterations. It allows distribution only to the perimeter unless used with another system.

Integrated ceiling system uses cable trunking and power poles to workstations. It is an economical and adaptable solution. However, the cluttered appearance of the poles is rarely resolved successfully.

Flat-wire cable accessed from the perimeter and run under carpet squares provides a very flexible and adaptable system.

Access flooring provides almost limitless flexibility.

Source: Offices: A briefing and design guide, by Stephen Bailey

Figure 20: Alternative Systems for Power Distribution
BUILDING CONDITIONS

The standards for building conditions concern those physical qualities of a building that determine its suitability for the specific office needs of an Agency. DCAMM standards cover the following items:

- Building Codes
- Building Systems and Enclosure
- Building Structure and Layout
- Building Common Areas
- Tenant Compatibility

The Agency is responsible for identifying any "non-standard" building conditions which may be necessary or desirable to meet the operational needs of the office. The need for any of these should be indicated in the Facility Plan so that the information can be included in the RFP.

BUILDING CODES

As a minimum threshold, DCAMM requires that all building and tenant improvements comply with applicable Federal, State, and local code requirements. Agencies should not occupy a leased facility until the landlord supplies evidence of compliance, including a Certificate of Occupancy. DCAMM uses the Massachusetts State Building Code, all Codes of Massachusetts Regulations (CMRs), Regulations of the Massachusetts Architectural Access Board (MAAB), and the Americans with Disabilities Act (ADA) as minimum reference standards. In some instances, however, DCAMM requires landlords to meet requirements for new construction which are more stringent than requirements for existing buildings.

Life Safety

For the safety of staff and visitors in state offices, DCAMM requires that emergency lighting within the leased facility and along all paths of egress be upgraded to code standards for new construction. Landlords must also maintain life safety systems and equipment in operable condition. This includes fire doors, fire walls, fire stops, fire extinguishers, sprinkler systems, fire escapes, exit route diagrams, exit signs, emergency lighting along all paths of egress, and smoke alarm systems.

Barrier-Free Access

All State leased facilities must be barrier free, in accordance with MAAB and ADA regulations. Full accessibility applies to site pathways and parking, the building entrance, all common areas, and the leased space, and is intended to insure that state employees and the public have equal access to employment opportunities, services, and programs, regardless of their disability. Accessible parking or a drop-off area should be available near the accessible entrance. To ensure that leased facilities are barrier free, accessibility components should be surveyed during the site visit; the survey forms in DCAMM's Access Improvements Workbook can be used as a guide to MAAB requirements. For existing barriers, proposers can indicate in their proposal how they intend to remove them.

Harmful Materials

For State employees' health, particular concern is given to removing all harmful materials and for keeping on file all records which certify that harmful materials have been removed or are below harmful levels.
BUILDING SYSTEMS AND ENCLOSURE

Building systems must have the capacity to deliver appropriate services for Agency staff and the public within the building and the leased area. The systems that are important to evaluate include:

HVAC
Air quality and temperature control are key elements in an office environment. The building's heating, ventilation, and air conditioning system must have the capacity to meet all loads generated by people, lights, office equipment, and environmental factors. HVAC systems can be noisy, so DCAMM requires that sound levels not exceed a Room Criterion (RC) of 35 which allows for normal conversation levels. The building's HVAC system must be assessed for its ability to handle needs within the Agency's space. The most useful measures are the age and design capacities of the systems, information which is supplied by the proposer. To ensure adequate air quality and temperature control over the course of the lease, the landlord agrees in the lease to service all HVAC equipment, replace filters, and clean diffusers according to manufacturers' recommendations, or more often if necessary.

Electrical Service
The building's electrical service should have sufficient capacity to provide power to the Agency's space and electrical equipment.

Elevators
DCAMM requires that any state office not located at ground level be accessible by elevator or other appropriate means. The landlord is responsible for maintaining all vertical conveyances in working order. All elevators should have automatic self-service controls and cab sizes in compliance with state and federal accessibility regulations. Most offices handle deliveries with hand trucks and do not need access to freight elevators. Those leased facilities which require frequent moving of bulk supplies/forms and large equipment should indicate a need for access to a freight elevator and loading dock in the Facility Plan.

Building Enclosure
The building enclosure includes the roof, foundation, exterior walls, windows, etc. which provide protection from the elements, affect energy consumption, and, when structural stability is an issue, may impact the safety of occupants. For energy conservation and tenant comfort, the DCAMM standard is double glazed or insulated glass windows. The building enclosure components must be in good condition throughout the term of the lease.

BUILDING STRUCTURE AND LAYOUT

Characteristics of the building's structure can impact its suitability for supporting the Agency's program by physically constraining the design, layout, and utilization of the leased space. The following define the basic standards and issues to be addressed:

Column Spacing
Structural spans define the grid or module for laying out partitions, open areas, and circulation. The preferred range for column spacing is 25 to 35 feet on center. Smaller and irregular bay sizes limit possibilities for interior space planning, particularly for larger spaces. The largest column-free space with a length to width ratio not exceeding 2:1 will determine the largest single room practical. If the Agency space program includes any room over 800-1,000 square feet, the Agency should indicate in the Facility Plan that minimum column spacing of 20 to 25 feet may be required.
Ceiling Heights
In an average office, ceiling heights typically range from 8'-0" to 11'-0". Ceiling heights between 8'-6" and 9'-6" are preferred. Higher ceilings can lead to increased buildout costs and higher energy costs. However, large meeting spaces, large equipment, or rooms with raised access floors may require higher ceilings. Agencies should indicate any of these special conditions in the Facility Plan.

Designed Floor Loads
Landlords are required by the State Building Code to meet minimum uniformly distributed live loads as measured in pounds per square foot (psf). In office buildings, office areas have a minimum live load of 50 per square foot. This will accommodate standard office equipment, files, and furniture. Records storage rooms up to approximately 200 square feet are typically not a problem. If more space than this is needed to accommodate records storage requirements, Agencies should plan for two separate rooms which can be located in different areas of the office, thus distributing the load. Review the guidelines for large/heavy equipment in the Special Planning Issues section of this section to see if higher designed floor loads are required. The Agency must flag this need in the Facility Plan.

Natural Light
Access to natural light enhances the work environment. The amount and arrangement of window area affects the extent of natural light in an office and the location of partitions which intersect the exterior wall. At least 25% of the exterior wall should typically be window area in standard offices.

Entrances
Most Agencies require only one entrance for both staff and the public. The landlord is responsible for providing secondary egress doors according to code. Some Agencies require a second entrance to separate staff and public traffic; to provide another means of entry for security risk clients; or to protect the anonymity of informants in criminal cases. The Agency must identify this need in the Facility Plan.

Location and Distribution of Space
Administrative offices are typically located on upper floors in buildings while a first or second floor location is preferred for offices with a high volume of public traffic so that public access is direct, convenient, and does not tax building elevators. Agencies must identify and explain requirements for a first floor location in the Facility Plan. Basement space which is not susceptible to water damage and has sufficient natural light will be considered. Contiguous space on one floor is preferred except for very large offices. Multi-floor office space is discouraged because some office functions, such as entry/reception and copy facilities, must be duplicated on different floors to enhance office operations, which often takes up additional square footage.

Configuration
Awkward building configurations can create inefficient layouts. In general, the leased space should be either square or rectangular in shape; odd angles often create leftover space. L-shaped spaces may also be easy to work with. Two exterior walls are preferred, one of which should ideally be the long side of a rectangle.
Figure 21: Column Spacing
BUILDING COMMON AREAS

DCAMM defines the following standards for building common areas used by Agency staff and the public. These areas are not included in the Usable Area.

Public Areas
All public areas in a building which staff or visitors use over the course of a workday should present a professional image. These areas include the building entrance, elevator lobby, stairs, corridors, elevators, and public restrooms. All common areas should be well lit, easy to find, and convenient to use. For security purposes, a minimum lighting level of 10 foot-candles should be provided in all corridors and areas used by Agency staff.

Vestibules
For weather control and worker comfort, all exterior entrances into the leased space must include a vestibule. Vestibules with two locked doors also provide added security.

Restrooms
It is DCAMM's policy not to require the provision of separate restroom facilities for Agency staff and visitors in the leased space. The landlord is required by code to provide restroom fixture counts based on building occupancy levels. Drinking fountains are also required by the current code but landlords of older buildings have the option of providing bottled water if plumbed fountains have not been installed. The restrooms should be clean, well lit, and meet accessibility requirements. Finishes, fixtures, and specialties should be consistent with a professional office environment.

Tenant Compatibility
Other activities or uses in the building must be compatible with the Agency's proposed use. For example, administrative office space may be inappropriate in a building or mall devoted primarily to retail uses. Compatibility issues include safety, traffic levels, noise, odor, and visual clutter.

LANDLORD SERVICES

As part of any lease, the landlord provides building management services to the Agency. DCAMM has developed standards in the following areas:

- Utilities
- Maintenance and Snow Removal
- Building Security and Access
- Janitorial Services

In the Facility Plan, the Agency should identify the need for any landlord services which deviate from the following standards, to insure that the RFP accurately reflects the Agency's circumstances.

UTILITIES

The typical lease calls for the landlord to pay all utilities, taxes, and insurance for the leased property with the exception of telephone charges, which are paid directly by the User Agency. Proposers are asked to break out the cost for electricity for Agency lighting and office equipment in their proposal, so that the Agency can choose to pay these costs directly to the utility company, and deduct them from the total...
proposed rent. Agencies should note in the Facility Plan if they prefer to pay utilities directly, so that this information can be incorporated into the RFP.

**Normal Office Hours**

Normal office hours are considered to be Monday through Friday, except holidays, from 8:00 a.m. to 6:00 p.m. The landlord maintains minimum temperature levels during this time period within a comfort range prescribed in the RFP. Some Agencies may need extended office hours to cover evenings and weekends. Since this expanded utility use can lead to increased rent, Agencies should carefully review these needs and develop alternatives such as holding meetings off site or during normal office hours. The need for extended hours should be described in the Facility Plan, so that this information can be incorporated into the RFP.

**MAINTENANCE AND SNOW REMOVAL**

DCAMM specifies routine maintenance services for all office facilities. These include the maintenance of all site areas, including landscaping, snow and ice removal before normal working hours and as needed, and routine maintenance and repair of the building exterior and all systems and equipment. The specifications call for the landlord to repaint and replace wall coverings every five years to maintain the quality of the professional work environment. Ceiling tiles should be replaced during the term of the lease if they become damaged or stained. Carpet or carpet tiles should be replaced if they become worn or damaged or if the carpet backing becomes visible. The landlord is encouraged to store five percent (5%) extra stock to repair damaged finishes. DCAMM encourages Agencies to purchase and install protective floor mats over carpet in areas subject to heavy use such as under clerical workstations or in front of the copy machine.

**BUILDING SECURITY AND ACCESS**

DCAMM requires landlords to provide authorized Agency staff access to the leased facilities after normal working hours. This access can be provided by a number of different means including security guards, master key, electronic card, or similar restrictive entry system.

Security equipment is only effective if managed properly. The Agency should limit after hours access to a few authorized personnel and should keep a record of all keys or card passes that are distributed. A lost or stolen key or electronic card pass can result in the replacement of locks, at the Agency's expense.

Some Agencies may have special security needs required by state regulations. The Agency is responsible for describing these needs in the Facility Plan and determining, or working with DCAMM to determine, appropriate security systems. Agencies should refer to "Security" in the Special Planning Issues section in this section.

**JANITORIAL SERVICES**

DCAMM has developed a list of, and schedule for, janitorial services to be provided by the landlord. These services can be provided at the hours most convenient to the landlord, unless otherwise stated; if the Agency requires that these services be provided at specified times, this must be indicated in the Facility Plan. If an Agency elects to contract directly for cleaning services, this approach must be explained in the Facility Plan.
SPECIAL PLANNING ISSUES

DCAMM standards for tenant improvements, building conditions, and landlord services are appropriate for most office facilities. The mission of some Agencies, however, triggers the need for special space planning requirements. Agencies are responsible for describing any special needs they have in the Facility Plan, utilizing the information provided below and their experience from other office locations. These needs are translated into Agency specifications which are included in the RFP.

Examples of Special Planning Issues include:

- Security
- Special Client(s) Profile
- Noise
- Large Rooms
- Large/Heavy Equipment
- Furniture and Architectural Woodwork
- Warehouse Storage

SECURITY

Security is a key issue for many Agencies. It must be addressed in the Facility Plan to identify specific tenant improvements needed. It is revisited during development of the Schematic Space Plan, since it often affects how the office is zoned for different uses.

DCAMM Standard

Both the landlord and Agency personnel play important roles in maintaining security. The landlord provides basic security hardware (e.g. master key, electronic card, etc.) at entry doors which prevents unauthorized entry and allows authorized Agency personnel to gain access after normal work hours. The Agency is responsible for locking all doors and equipment after hours and for limiting the distribution of keys/entry cards to authorized employees only. Security lighting is provided at entrances, pathways, and parking lots to enhance the safety of persons coming and going at night.

Some Agencies may have additional security concerns for the following:

- protecting the premises
- controlling public access to staff work areas
- providing security for transactions
- protecting important items/documents

Protecting the Premises

The need for additional security protection for premises is generally triggered by special office activities and/or by neighborhood location. Offices with confidential client information or valuable equipment may need to protect all parts of the office from intruders. This can include the following increasing levels of protection:

- Ensure that other building tenants and the landlord's maintenance staff do not have keys to the office.
- Alarm all entry points so that an unauthorized visitor after hours is immediately detected.
• Hire security staff for either round-the-clock surveillance or for after hours surveillance.

Controlling Public Access to Staff Work Areas
Agencies with a high volume of public traffic may need to control coming and going activity so it does not disrupt the office work environment. If the receptionist is unable to provide this level of control because of the number or type of clients, consider hardware options for the door which separate the public/client zone from the staff/work zone. Public access may be controlled as follows:

• Mechanically control access at the door between a public waiting area and a restricted work area. All staff, or only authorized staff, have access through this control point with a key or security code. This eliminates the reliance on a receptionist and is particularly useful in offices where staff move frequently between restricted and unrestricted parts of the office.

• Monitor access with an identified staff person. In this situation, the receptionist can control both staff and client access to restricted areas within the office through remote door release. This requires that a receptionist always be present who can identify staff persons.

Providing Security for Transactions
Transactions in some Agency facilities between the public and staff must be monitored due to the nature of the client (i.e. security risk) or the type of transaction (i.e. cash or negotiables). In these instances, it may be necessary to provide safety glass windows at receptionist desks or transaction counters, to enhance office security.

Protecting Important Items/Documents
Access to many items within offices must often be controlled, including office supplies, expensive office equipment (laptop computers, audio-visual equipment, cameras, etc.), evidence in legal proceedings, and confidential documents and client files. In small quantities, important items can be stored in lockable file cabinets or storage cabinets. In larger quantities, these items can be stored in locked rooms where only authorized staff have access. Important items with similar requirements for limited access can be stored in one room.

Confidential client files which are used on a daily basis by staff present a different problem. To keep track of these important files, and to ensure that they are not lost, some Agencies require that staff sign these files in and out when they are taken from a central file room. In large offices where many files are accessed over the course of a day, it may be necessary to assign a staff person the responsibility for all files. This person's workstation can be located in the active files room where other staff members are not allowed. Staff request files from, and return them to, the file clerk. There may be a need to limit general staff access to files while still providing access to the staff person in charge.

Agencies that hold valuables or cash overnight may need a room which can withstand break-in attempts. This should be weighed against other options including providing security for the premises and purchasing a vault/safe.
CLIENT(S) PROFILE

An Agency's work with clients may trigger special space planning concerns and additional tenant improvements so that the Agency can more effectively and efficiently deliver services. Offices serving clients with special profiles must identify and describe this profile in the Agency's mission statement. Examples include:

- Infants/children
- Clients requiring observation
- Security risk clients
- High volume of client visits

Infants/Children
Many Agencies provide services to children and to families with children. As a result, infants and children are frequent visitors to these offices. Some of the special needs of this client group include:

- convenient access to restroom facilities;
- kitchen facilities for the storage and preparation of snacks for children who occasionally spend long hours in an office waiting for services; and
- separate children's play area where children can wait while parents/guardians are waiting for, or receiving Agency services.

Clients Requiring Observation
There are several instances when it is important to observe client activities, with or without their knowledge:

- **Clinical purposes.** Agency staff may provide therapeutic and diagnostic services which are most effectively delivered in a one-on-one interview. It may be useful to have specially trained Agency staff and consultants view these interactions from another room.

- **Investigative purposes.** Agency staff investigating criminal activities may need to talk to witnesses or informants. These clients may be more comfortable disclosing information to one or two persons. Other persons involved in the case may observe from an adjacent room.

- **Training purposes.** Staff training is a key function in many Agencies. In offices where staff provide clinical services, training may include observing ongoing staff-client interactions. Trainers can describe these interactions and clinical techniques as they are observed.

In the above instances, the use of one-way glass may be appropriate and should be indicated in the Facility Plan.

Security Risk Clients
For information on space planning implications of dealing with individuals who pose security risks or must be detained against their will, see "Detainee Holding Area" in the section on Courts.

High Volume of Client Visits
Agencies with a high volume of walk-in client traffic may need two entrances: one for the public and one for staff. To minimize disruption to other offices in a multi-tenant building and to ensure easy accessibility for all public traffic, first floor locations are often preferred.
The public traffic must be directed to designated services in a clear and efficient manner. Waiting may occur in queues or in seated waiting areas. For durability and ease of maintenance, vinyl composition tile (VCT) is recommended rather than carpet. Other durable finishes should also be considered.

**NOISE**

A typical office is filled with sounds of ringing telephones, noisy conversations, and humming equipment and word processors. Cost effective techniques for reducing this noise level to a moderate hum of activity which is not intrusive or disruptive include:

- enclose noisy machinery in rooms rather than open office areas;
- locate rooms where noise is generated, either by machinery or groups of people, away from quiet work areas where staff need to concentrate on tasks;
- maximize the use of open office areas where sound dissipates and avoid full-height partitions which trap noise;
- use acoustically absorptive materials on walls and ceilings; and
- minimize sound reflective surfaces.

**DCAMM Standard**

DCAMM standard buildout uses carpeting and acoustical ceiling tiles which absorb noise and minimize its disruptive effects. Requirements for confidentiality or exceptional noise generation capacity may require special acoustic treatment for sound insulation in some hearings or interview rooms, large meeting rooms, and children's play areas. To limit background noise, HVAC noise levels must not exceed a Room Criterion (RC) of 35.

**LARGE ROOMS**

Setting aside large rooms (over 500 square feet) for meetings is usually not cost effective in office space. When large meetings are held only five or six times a year, meeting space for these occasions can be reserved in a state-owned building, or can be acquired through a short-term rental. When space is most often required for smaller meetings but there is a need for a larger space once or twice a month, it may be cost-effective to use operable partitions to subdivide a larger meeting room into smaller conference rooms.

When rooms larger than 500 square feet are necessary, they raise special planning concerns, creating code issues and requiring changes in building condition requirements. Meeting rooms which accommodate 50 people or more are defined by the Building Code as assembly space and must meet the additional requirement of having two separate means of egress. Large meeting rooms should avoid freestanding columns or other structural elements which block views or otherwise interfere with the use of the room, and this may require column spacing greater than the preferred 25 to 35 foot standard in the RFP. In large rooms, it may also be necessary or desirable to have ceilings higher than the 8 to 11 foot standard. In calculating square footage requirements, DCAMM does not add in the circulation factor for rooms larger than 2,000 square feet.
LARGE/HEAVY EQUIPMENT

Office equipment ranges from typewriters and personal computers to large copiers and printing machines. The use of large equipment, which also tends to be heavy, may trigger special building conditions. Agencies should develop an inventory of all equipment which includes key information on wattage, cabling requirements, weight, and dimensions. This information can be found either on the manufacturers identification plate on each piece of equipment or in the instruction/installation Manual.

Agencies with large office equipment must identify any special requirements of the space where it will be located and must anticipate problems in moving it in. The space where the equipment will be used may have special requirements regarding ceiling height, HVAC, and electrical supply. Entrances into the building and the Agency space itself must be large enough to accommodate the equipment; corridors must be wide enough to allow passage of the equipment, and elevators (where needed) must be large enough to carry it. Special needs relating to large office equipment must be noted in the Facility Plan so that they can be included in the RFP.

The structure of the building must be able to accommodate the heavy loads associated with large equipment. See DCAMM Building Conditions for a discussion of minimum distributed live loads for standard offices. The following chart provides general planning information for special live load requirements.

<table>
<thead>
<tr>
<th>Occupancy or Use</th>
<th>Live Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly halls</td>
<td>100 psf (pounds per square foot)</td>
</tr>
<tr>
<td>File rooms</td>
<td></td>
</tr>
<tr>
<td>Card</td>
<td>125 psf</td>
</tr>
<tr>
<td>Letter</td>
<td>80 psf</td>
</tr>
<tr>
<td>Libraries</td>
<td></td>
</tr>
<tr>
<td>Reading rooms</td>
<td>60 psf</td>
</tr>
<tr>
<td>Stack rooms</td>
<td>150 psf</td>
</tr>
<tr>
<td>Business machine equipment</td>
<td>100 psf (or manufacturers' recommendations)</td>
</tr>
<tr>
<td>Computer rooms</td>
<td>Check actual computer equipment</td>
</tr>
<tr>
<td>Storage warehouses</td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td>125 psf</td>
</tr>
<tr>
<td>Heavy</td>
<td>250 psf</td>
</tr>
</tbody>
</table>

Some large/heavy equipment may require special electrical capacity which exceeds normal office standards. Agencies must identify the equipment and special electrical service needs in the Facility Plan. Large computer rooms may also require additional cooling capacity to offset the heat generated by the equipment and special raised flooring to provide easy access to extensive electrical wiring.

SYSTEMS FURNITURE AND ARCHITECTURAL WOODWORK

Agencies should be as concerned about the efficiency and quality of their furnishings as they are with the efficiency and quality of the leased facility. Agencies are encouraged to allocate an appropriate budget to meet their needs for both space and furniture.

Agencies purchase furniture through the State Department of Procurement and General Services. Furnishings are not part of the lease agreement.

Agencies are strongly encouraged to make maximum use of portable and modular furniture systems which can reduce the required space and eventually move with the office. Modular systems furniture,
when used in conjunction with the alternate workstation standards on pages 4-8 and 4-9, maximizes the efficient use of usable space. This results from the use of more vertical space without the need for floor to ceiling partitions. Systems furniture also allows Agencies to respond more easily to organizational changes of size, structure and function. Systems furniture allows Agencies to respond to change at lower cost by reducing expenses related to partition relocation, HVAC modification, lighting relocation, construction and moving time. Modular systems furniture workstations require less area than conventional furnished workstations due to maximization of vertical space use and the efficiency of built-in components.

Agencies should limit requests for custom architectural woodwork to situations when existing furniture selection does not meet specific functional requirements. If a request for custom woodwork is approved, the Agency must provide detailed specifications and, where possible, schematic drawings for architectural woodwork which will be included as part of the RFP. Where feasible, custom furnishings should be constructed as portable units which can be relocated at the end of the lease.

The selection and specification of furniture involves identifying functional needs, assessing available standard products, and establishing cost and delivery schedules. Criteria for selection of furniture components include:

- **Modularity**: is the furniture based on a typical 5-foot module which can be accommodated within a typical building structure?
- **Adaptability**: how easily can a particular configuration of furniture be changed, dismantled, and relocated?
- **Breadth of product line**: will the product line be able to accommodate a range of needs?
- **Coordination**: does the new furniture complement existing furniture?
- **Manufacturer's capacity**: can delivery and installation dates be met? Will the product line be available in future years?
- **Costs**: is the cost of the system competitive with other similar products?

**WAREHOUSE STORAGE**

A few Agencies may need to lease warehouse storage facilities for inactive files, unused furniture and equipment, or supplies which are accessed infrequently. It is more cost efficient to store these items in inexpensive storage facilities rather than in general office space. Some storage leases include a small office component to oversee the shipping, receiving, and storage of Agency items.

The selection of a suitable building for warehouse storage is more important than the buildout, which is typically minimal. Consider the following criteria when searching for an appropriate building:

- frequency with which stored goods are shipped and received
- distance from other facilities needing access to the storage facility
- level of security required
- amount and type of office space needed for staff support
- volume of space, rather than area, available for storage

Storage facilities typically require the following building conditions: live floor loads between 125 to 250 pounds per square foot (per square foot); ceiling heights of at least 14 feet; existence of a loading dock; freight elevator(s) in multi-story facility; large open floor areas; and concrete or woodblock floors with unfinished ceilings.
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The facility must be able to sustain a considerable amount of floor loading from storage of items and operation of heavy machinery. Record storage is approximately 50 pounds per cubic foot. Engineering standards call for a weight-bearing capacity of 150-175 pounds per square foot for floors containing book stacks and up to 300 pounds per square foot for compact shelving. The Agency should review its storage needs and specify minimum floor loading requirements.

DCAMM standards for storage space assume that the protection and preservation of the stored items is critical. The storage space must have an adequate sprinkler system and the roof should be tight with no evidence of leakage. Avoid windows to allow better security and temperature control. Perimeter security often includes positive protection (steel bars) at any windows, secure metal doors/frames with deadbolt locks, lock guards and alarms, and exterior lights.

The storage facility should have a functioning heating system capable of maintaining a temperature of 55°F ± 5°F in storage areas; occupied staff areas should follow all requirements for Offices. Levels of humidity should also be controllable, particularly where stored items would be affected by high humidity. Use a minimum lighting level of 10 foot-candles throughout the storage area. If electric truck batteries are to be recharged, this should be noted in the Facility Plan so that adequate electric service can be specified in the RFP. The need for movement systems, both vertical and horizontal, must also be identified.

Figure 22: Warehouse Storage