

Updates and Errata

Fundamentals of Facilities Management, ©2003

The pages listed below contain revisions that have been made to this course book since it was last printed. The rest of this file provides the corrected, print-ready pages, along with the reverse of each page. To update your book, print the pages on both sides of your paper by following the directions provided on the next page. Then simply filter the pages into your course book.

Revised Pages	Date Revised	Description of Revision
Chapter 9		
Pages 9-60 – 9-66	April 2004	Updated Appendix C: Space Measurement Systems
Student Packet		
Chapter Review Test: Chapter 6	April 2004	Removed question 1, which was taken from Chapter 5 in error
Chapter Review Test Answer Key	April 2004	Chapter 6: renumbered questions and changed former question 3 to correct letter A; Chapter 14: changed question 7 to correct letter C

7. Where appropriate, use professionals (who care, but not too much) to represent you in negotiations.
8. Ensure that during negotiations all parties know:
 - Who the spokesperson is for each side
 - What the limits are of the spokesperson's authority and flexibility

Meeting Corporate Objectives

1. Use cooperative bargaining rather than confrontation.
 - Try to achieve a satisfactory and sound solution.
 - The goal is a basic meeting of the minds.
2. Control the process based on your negotiating strategy and model.
 - Use your negotiating model.
 - Determining important facts is essential to defining business and negotiating issues.
 - Prudent preparation should result in understanding the assumptions.
3. Be prepared for reciprocal provisions.

Ensuring You Get What You Thought You Were Getting:

1. What are the necessary requirements for your customer? Have they been satisfied?
2. What conditions does the seller or landlord require to close?
3. Where possible, require specific remedies and liquidated damages.

Making the Final Agreement and Closing the "Deal":

1. Be ready to concede appropriate items or issues within your negotiating model.
2. If you are purchasing, consider using a closing attorney whose experience includes closing where the acquisition is located.
 - Require the right to assign the purchase or lease without unreasonable restraint.
 - Do not waive essential contingencies, warranties, and representations that must survive the closing.
 - Require an inspection as appropriate.
 - When rights and duties are indisputably clear in the real estate lease or purchase contract, take a firm position.
 - Support your leasing or closing attorney while achieving your business objectives.
 - Do not forget that you can stop the lease process or reschedule a closing if required business terms and issues have not been achieved.
3. Be gracious, civil, and professional.
4. If you decide to try to squeeze the last buck out of the deal, understand what this will mean to both parties. If it is a good deal, close the transaction.

Appendix C

For your reference, this appendix contains an updated, abridged version of a comparison of the various revised space measurement systems. The original comparison was provided by Lawrence W. Vanderburgh, RPA, FMA, CFM, RA, vice president of customized and workforce programs, BOMI Institute.

Space Measurement Systems

Space measurement is a relatively obscure aspect of property and facilities management, but it plays a crucial role in setting rental rates and space assignment records. The subject is best approached with some caution.

Several space measurement systems are in use in North America. Many of them use identical or similar terms but interpret them in different ways, and sometimes their language is not precise. All systems strive to ensure the utmost fairness to occupants and building owners, but their rules are quite complex, particularly if you must translate from one system to another.

Six space measurement systems are presented here, although several additional regional variations are in use in major North American urban centers. The six measurement systems presented are the following:

1. BOMA (Building Owners and Managers Association) — new standard
2. BOMA (Building Owners and Managers Association) — old standard
3. REBNY (The Real Estate Board of New York, Inc.)
4. WDCAR (Washington, DC, Association of Realtors)
5. GSA (General Services Administration) — former system
6. IFMA (International Facility Management Association)

Before 1992, there was little attempt to compare the systems. Now, the trend is more toward reconciliation than standardization.

The most recent development in this field has been the promulgation of a major revision by BOMA to its standard. The U.S. General Services Administration has recently decided to classify all future space assignments, including lease actions, in terms compatible with BOMA's new system. The BOMA system is the most widely accepted in commercial real estate transactions, such as leasing. It is also used for tenants' space assignment allocation in many buildings. (A copy of the *Standard Method for Measuring Floor Area in Office Buildings* can be ordered through the supplemental readings section at the back of the text.)

The New BOMA System

The BOMA system is tailor to the needs of the commercial office building lessor. It is by far the oldest and most widely used system. In June 1996, BOMA completed a major revision of its measurement standard, which has again been endorsed by ANSI (the American National Standards Institute).

As with the old standard, HVAC convectors, columns, and interior building projections are included in measurements; tenants must absorb this in their rent bills and space planning procedures. Another aspect that remains the same is that usable area exclusive to one tenant is still measured from the office (tenant) side of walls separating tenant space from public corridors.

Unlike the old standard, the new standard defines *floor usable area* to include *building-wide common areas* on that floor. Such areas are prorated to all building tenants on all floors. Areas such as public toilets and electrical and janitorial closets are considered *floor common areas*. For a side-by-side comparison of the differences between the old and new BOMA systems, please refer to **Figure A**.

Old BOMA System	New BOMA System
Measures space on a floor-by-floor basis	Measures space by the building as a whole
Building common area not considered usable	Building common areas measured and prorated to all tenants
Building common areas not defined	Building common areas precisely defined
Simple calculations but wide variation in core/loss factors	Complex calculations but more consistent core/loss factors on all floors

Figure A Differences between the Old and New BOMA Systems

The 1996 standard represents a major departure from the previous one in the following areas:

- ▷ It measures space on a building-wide basis, rather than exclusively floor by floor.
- ▷ Most areas that were formerly amortized or absorbed in the base building cost, and therefore covered in the base rent, are now measured and prorated to all tenants.
- ▷ The new standard is much more explicit in naming many of the new building features designed to support all tenants in a building.

- ▷ Calculations are more complex, but the results provide a more rational approach to real contemporary situations.
- ▷ Several new definitions have been introduced. Familiar terms like *rentable* and *usable* have been revised to reflect required changes in how they are calculated.
- ▷ The definition of *rentable area* includes office, store, portions of building common areas, and floor common areas prorated to each tenant. Building rentable area almost always remains constant for the life of the building. Usable area changes over the life of the building as tenant space changes.
- ▷ Basement storage and loading dock areas within the building line are considered part of rentable area; parking areas are not.

Old BOMA System

The previous BOMA standard is also included for comparison. It remains the baseline for rentable areas stated in thousands of leases. Of the six systems mentioned here, the old BOMA standard is the most generic, has the simplest set of definitions, and is the easiest to administer — as long as its few categories are specific enough for the intended application. Its major features include the following:

- ▷ Space is measured floor by floor, rather than by the building as a whole.
- ▷ Rentable space is constant for the life of the building; usable area changes over the life of the building.
- ▷ Private stairs, washrooms, and kitchens are considered part of the rentable space.
- ▷ HVAC convectors are included in measurements; tenants must absorb this in their rent bills and space planning procedures.
- ▷ Amenities shared by several tenants — such as fitness centers, conference centers, lounges, and vending areas — are not considered rentable. Landlords are expected to factor the costs of such facilities into their basic rental rates. Basement storage and parking areas are not included as part of rentable area.
- ▷ Except for mechanical penthouses, there is little definition of the allocation of space for central building support operations, such as HVAC, electrical, telephone switch, and UPS systems for the entire building. Common practice is to exclude them all from rentable area, but the standard is not definitive.

- ▷ Since the old BOMA system measures floor by floor, main lobbies and atrium areas are considered rentable. Since core factors tend to be very high on these floors, BOMA suggests renting usable area in this case.
- ▷ Usable area exclusive to one tenant is measured from the office (tenant) side of walls separating tenant space and public corridors. Usable space excludes such support areas as public toilets, mechanical rooms, and electrical and janitorial closets.

REBNY System

The REBNY space measurement system is the most landlord oriented of the six because it includes the most nonusable space in the rentable area billed to a tenant. From a landlord's viewpoint, this approach has an advantage over the others: the total rentable area of the floor remains constant. In addition, unless space is actually added to or deleted from a tenant's holdings, the tenant's percentage of rentable area of the floor and of the entire building remains constant. This facilitates uniform, consistent allocation of tax increases and operating costs, thereby simplifying administrative procedures.

WDCAR System

The WDCAR system was adopted by Washington, DC, Association of Realtors in 1989 and supersedes an earlier system used by the Washington, DC, Board of Realtors. It is generally complementary to BOMA's old system, but it is more specific. By explicitly excluding more general building support areas, it narrows the range of core factors on unusual floors and simplifies negotiations. Its features closely parallel those of the BOMA system.

Former GSA System

As of this writing, the GSA is undergoing the most profound change in its relationship with its tenant agencies since its founding in 1949. As a result, the FPMR (Federal Property Management Regulation) 101-17, Temporary Regulation D-76, which included the language of GSA's space measurement system, has expired, leaving no official space measurement system of record.

GSA has also decided to endorse the new BOMA standard as the method referenced in all future leases with private-sector building owners. To embrace this new standard and reconcile it with thousands of existing agency space assignments and leases, GSA has determined that what is called *occupiable space* in its old system equates almost exactly with *floor usable area* in the new BOMA system. The only significant discrepancy concerns HVAC convectors, which are excluded from GSA's *occupiable space* definition but are included in BOMA's *floor usable area*.

IFMA System

The IFMA system has been most recently developed. It has been adopted as a standard of ASTM (the American Society for Testing and Materials). It is based on and complements the old BOMA system. It differs in its detail of measurement categories of particular interest to the tenant and to space planners laying out actual furniture and equipment. It is positioned to align with efforts in other countries, particularly through the ISO (International Standards Organization), where the emphasis on space measurement tends to be more tenant-oriented.

Summary

Figure B (Space Measurement Systems Compared) and **Figure B-1** (Key Measurement Terms) summarize some general comparisons between the six systems listed on page 66. The first shows the basic types of space encompassed in the definitions of each measurement system. All types of space fall into one of the following three categories:

- ▷ **Space rented by measurement.** This is shown in the large block on the right side of Figure B. It represents space in each system that is measured and becomes the basis of the space allocated to a particular tenant and the rent calculation.
- ▷ **Space allocated pro rata.** This is shown in the center block of Figure B. It represents space in each system that is measured, tallied, and allocated pro rata to each tenant, in proportion to its share of space in the building. This share of space, often called the *core*, or *loss factor*, is added to the measured space described above to calculate the total rentable area written into a tenant's lease.
- ▷ **Space amortized into the base building cost.** This space, represented by the large block on the left side of Figure B, includes areas that are neither measured nor allocated pro rata in the tenant's lease. Therefore, the costs of such space must be recovered in the base rent charged in relation to measured space in the previous two categories.

Figure B-1 shows only the last two categories — space rented by measurement and allocated space — as well as the most important terms of each system.

The BOMA Standard Method for Measuring Floor Area in Office Buildings is by far the most widely accepted floor measurement standard in use today and with the adoption of the new BOMA standard by GSA, it is likely its predominance in the industry will increase.

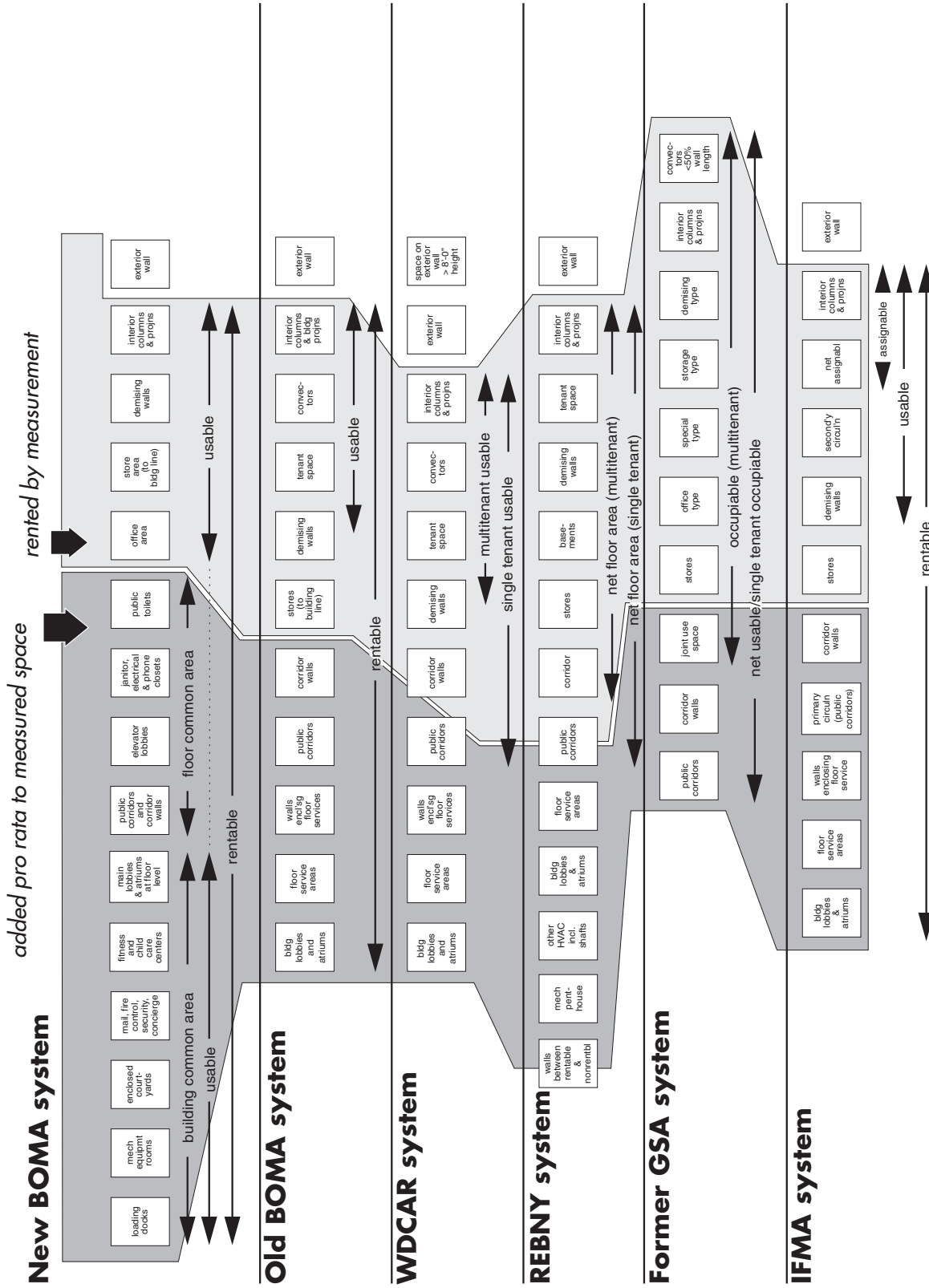


Figure B-1 Space Measurement Systems Compared

Chapter Review Test: Chapter 6

Select the one choice that best answers the question.

1. When a bundle or full range of services is provided by a third-party single contractor or group of contractors, this arrangement is referred to as:
 - a. outsourcing.
 - b. out-tasking.
 - c. consulting.
 - d. contracting.

2. To convey fairness, the scorecard should be presented to the contractor:
 - a. in the RFP or IFB.
 - b. after the selection has been made.
 - c. at no time.
 - d. after bids have been received.

3. One aspect of laying off staff and outsourcing facilities work is that it:
 - a. helps maintain better control.
 - b. allows for manpower flexibility.
 - c. eliminates patterns of problems.
 - d. protects the organization's business interests.

4. From the facility manager's perspective, in most situations, the best person(s) to form an alliance between firms is/are the:
 - a. vendors themselves.
 - b. facility manager.
 - c. company attorney.
 - d. company financial officer.

5. A facility manager with seniority and experience working on a large job will likely have:
 - a. contracting training for the facility department.
 - b. closer supervision from the contracting officer.
 - c. a contracting specialist on staff.
 - d. some delegated contracting authority.

6. The least risky contractual arrangement for a contractor is:
 - a. fixed price incentives.
 - b. fixed price with economic adjustments.
 - c. fixed price for fixed level of effort.
 - d. firm fixed price.

Chapter 6 (continued)

7. The first draft of a contract for an outsourcing partner should be written by the:
 - a. legal department.
 - b. facility manager.
 - c. chief financial officer.
 - d. senior manager.

8. When combining similar activities into functional areas to prepare specifications, you should group the staff into:
 - a. similar roles.
 - b. current work aggregations.
 - c. chains of command.
 - d. project-oriented teams.

Chapter Review Test Answers

Chapter 1

1. A
2. D
3. B
4. B
5. C
6. D
7. B
8. C
9. A
10. D

Chapter 2

1. D
2. B
3. A
4. A
5. A
6. D
7. C
8. C
9. C
10. C

Chapter 3

1. A
2. B
3. D
4. D
5. B
6. A
7. A
8. A
9. A
10. A

Chapter 4

1. A
2. C
3. A
4. A
5. C
6. C
7. B
8. B
9. D

Chapter 5

1. D
2. B
3. C
4. A
5. A
6. A
7. A
8. B
9. D
10. B

Chapter 6

1. A
2. A
3. B
4. A
5. D
6. C
7. B
8. D

Chapter 7

1. A
2. C
3. A
4. C
5. D
6. B
7. B
8. D
9. B
10. B

Chapter 8

1. C
2. A
3. D
4. B
5. A
6. C
7. A
8. C
9. B
10. C

Chapter 9

1. C
2. C
3. B
4. C
5. A
6. A
7. B

Chapter 10

1. A
2. C
3. D
4. D
5. D
6. A
7. D

Chapter 11

1. D
2. B
3. C
4. A

Chapter 12

1. A
2. B
3. A
4. D
5. C
6. D
7. A
8. B

Chapter 13

1. C
2. D
3. B
4. C
5. D
6. B
7. C
8. D
9. D
10. B

Chapter 14

1. A
2. A
3. D
4. D
5. B
6. A
7. C

Chapter 15

1. B
2. D
3. B
4. B
5. D
6. B
7. D
8. D
9. B
10. D