
CAD-3 CONSULTING GROUP NEWSLETTER

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BOMA, the leading trade organization representing Building Owners and Managers sets the standard

A uniform methodology for determining building areas provides a standard that is fair to all parties undertaking real estate transactions.

CAD-3 Consulting Group Ltd.

Calgary

The area calculation method commonly referred to, as the *BOMA Standard* has emerged as the industry's universally accepted standard. It is a prescriptive set of guidelines that sets forth a clear step-by-step procedure for measuring and calculating floor areas.

Presently, BOMA International does not author the procedures and conventions but rather, has adopted the prescriptive narrative co-sponsored by the American National Standards Institute. The BOMA Standard is a sanctioned publication of the ANSI Standard.

Use of the "BOMA Standard" is not mandatory

There is no legislation in place requiring owners, manager, tenants or brokers to use the standard. However, most agree that it is in the best interests of all parties to settle on a standard process to derive a predictable and un-biased means of determining the floor area of an office or suite. The universal acceptability for the Standard stems from the consistency of its application. It allows vendors, brokers and tenants to equally assess the merits of various properties with respect to variables such as rentable areas usable areas, rates and operating costs. i.e. "Apples-to-Apples..." as the saying goes.

Presently, there is no accepted standard for measuring industrial buildings

In answer to the needs of the Industrial Building sector, BOMA has recently combined forces with the Society of Industrial and Office Realtors (SIOR), to create a *Standard Method of Measuring Floor Area in Industrial Buildings*. That document has been released in draft form and is expected to be ratified and published shortly.

Nomenclature is an essential part of the Standard

The BOMA Standard has brought uniformity to the terminology used in Leases and other real estate negotiations. Clearly defined wording such as *Rentable Areas*, *Usable Areas*, *Common Areas*, has displaced a number of previously confusing and ambiguous terms.

However, some may still find the actual terminology quite technical and complicated as each term tends to be built using other terms. This makes it even more important that a knowledgeable and experienced technician prepares the area calculations. For example:

- ✍ USABLE AREA refers to the measured area of the floor or suite. It is the actual area that a tenant will occupy, and is the area in which furniture or people can be situated.
- ✍ FLOOR R/U RATIO is the conversion factor that is obtained by dividing the total measured rentable area of a floor by the total measured usable area of a floor. It distributes the common areas of a floor proportionately to each suite or floor area.
- ✍ BUILDING R/U RATIO is the conversion factor that apportions the common areas of the entire building to the USABLE AREA.
- ✍ RENTABLE AREA, refers to the USABLE AREA of a suite of floor and its associated share of the floor common areas and the building common areas.

Area Calculation Procedures have evolved over time

The first standard method for measuring floor areas was used by BOMA as early as 1915, and remained essentially unchanged until 1952 when modifications were necessary to suit changes in the marketplace. By 1955 the methods became accepted as the American Nation Standard. Further sophistication of the industry resulted in the evolution of revised publications being issued in 1971, 1980 and 1989. The latest and current edition is the "Standard Method for Measuring Floor Area in Office Buildings, ANSI/BOMA Z65.1-1996", frequently referred to as "BOMA 96"

Regular Changes to the Standard are Normal

The American National Standards Institute has a self-directive requiring that action be taken to “reaffirm, revise or withdraw this standard no later than five years from the date of publication”. This is to ensure that the Standards remain relevant and practical in the marketplace.

There are significant differences between the previous (BOMA 89) and latest standards (BOMA 96)

Simple logic dictates that not just the usable area of the suite is important, but also the means by which the common area costs are to be apportioned. In the previously approved ANSI Z65.1-1980 (referred to as “BOMA 89” because it was last issued in 1989), Common Areas of a floor were proportionately distributed among the tenants on that particular floor. But, this did not properly account for all common areas in the building, like the main lobby and boiler/mechanical rooms, which were often omitted. Costs imputed to those areas had to be estimated intuitively, and recovered by the Property Manager when setting the common area costs or rents.

In order to provide for a more comprehensive and consistent recovery of the common areas, the ANSI/BOMA Z65.1-1996 was adopted. The pivotal departure from the previous procedure is that this process requires that the entire building be measured before the proper calculation can be made. It is the only way that all common areas, including main entrance lobbies, and mechanical floors can be fairly apportioned for recovery. Now, it seems that because the rentable area of a specific suite will grow from its earlier calculation, the \$/sq.ft. of the rent will grow accordingly. In fact, the value of the rent should remain about the same, (if not, the rent charged previously did not fairly recovery the common area costs). For, although the area contribution from common areas will be larger, the net effect should be the same as the lump sum common area cost remains unchanged, and the recovery per – square-foot is diluted appropriately. Another way to think of it is that the rate of the common area costs shrinks proportionately as the common area contribution grows.

Accurate measurements and drawings still form the foundation for accurate area calculations.

The accuracy of an area calculation is entirely dependent on the accuracy of the site measurement data, which is used to create the floor plan from which the area is eventually derived. Using the latest in laser and infrared technology, a knowledgeable technician can obtain very reliable site measurements quickly and easily. However, even when gathering data, it is critical that the technician have a thorough knowledge of the BOMA Standards to ensure that the dimensions are taken to the properly established boundaries.

Then, by incorporating the data into a Computer Aided Drafting and Design (CADD) program, the measured data evolves into a plan having a clearly defined boundary. The computer then generates a mathematically precise area calculation, further reducing the opportunity for a manual calculation error. Digital data gathering and computer assisted design drawings greatly reduce errors and tolerances inherent in tape measurements, hand drafting and manual computations.

Because of these recent technological advances, it is very important to have current, professionally prepared area plans on-hand before undertaking Lease negotiations or other real estate transactions. Previous versions of the area calculations were likely manually derived, and may not be as accurate as they should be. Statistics like the common area gross-up factors may be based on outdated standards.

Since 1990, most major property management companies in Calgary have subscribed to CAD-3 Consulting Group Ltd. for their space planning surveys and space inventory cataloguing.

CAD-3 uses current laser and infrared technology to survey the premises and uses the data to computer generate exceptionally accurate space plans. The advanced graphics offer a more credible and attractive illustration of the premises.

The space inventory catalogue is posted to a web site, for convenient viewing, printing , or downloading from virtually anywhere in the country. CAD-3 maintains the electronic files and ensures they remain current, further reducing the administrative inconvenience of owners and clients in maintaining storage cabinets filled with space plans.

CAD-3 also provides full colour plotting, printing and delivery services.