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How big is a square foot? Depends on the audience.

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Measuring square footage is not always an exact science.

There are a number of rentable square footage measurement standards commonly used in the commercial real estate market. Each method, if used on the same space, would result in a different rentable square foot number.

The key difference: Some methods benefit the tenant and some benefit the landlord.

The ANSI/BOMA Standard, otherwise known as the BOMA Standard, is the prevalent standard for measuring leased office space in the United States, except in the metropolitan areas of New York and D.C. (ANSI is short for the American National Standards Institute and BOMA for the Building Owners and Managers Association.)

BOMA maximizes the rentable square feet in a building, compared to the Greater Washington Commercial Association of Realtors (GWCAR) method, which has been the prevalent method of measurement in the D.C. area.

BOMA starts with the gross measured area, which is the dominant inside line of the building, which may be the glass line or an inside solid wall of the building. This number is sometimes used as the rentable area of the building for a full building user. For multitenant buildings, you start with the inside gross measured area of the building, which is taken from the inside dominant perimeter of the building, usually the inside of the glass wall or the inside of the solid perimeter wall of the building.

To arrive at the floor rentable figure, the major, vertical penetrations -- such as fire stairs, elevators and pipe shafts, along with their surrounding walls-- are then subtracted from the gross measured area. The square footage of the building common areas support areas that serve the whole building -- such as the building lobby, elevator lobby, fire pump room, electrical room, the loading dock, trash dumpster area, fire command room, security office and rear exist corridors -- are prorated throughout the building to the tenants.

Using the BOMA or GWCAR method of measurement, full-floor users would take the total rentable area for the floor, which in their case is the same as the total usable area for the floor, and add their prorated building common area to arrive at their total rentable figure.

Multitenant-floor tenants would take their total usable square feet and add in their prorated floor common area, or floor rentable-usable (R/U) ratio, which consists of the rentable areas of their floor's building core, elevator lobby and shared common corridor, to arrive at their floor rentable figure. They would then add their prorated building common area, or building R/U ratio, to arrive at a total rentable square footage number.

The GWCAR method of measurement is similar to BOMA, but only charges for the main building entry for the building common area and does not charge for any of the other shared, building support areas. That can make a difference of 3 to 5 percent in the overall rental income of a building.

This is why the BOMA Standard is gaining popularity with building owners in the D.C. area.

Define your terms

Over the past four years, the General Services Administration has adopted a more "market friendly" definition of square feet and has adopted a "modified" BOMA method of measurement, which does not include the building common factor. The term, "modified," is ambiguous and should always be qualified since that can make a huge difference in what is considered rentable.

The International Facilities Management Association (IFMA) has developed its own definition of rentable square feet. This method is widely used by facility managers for use in square footage charge-backs to their departments and strategic facility planning as well as to track assignable square footage (the space actually occupied by offices and workstations).

The line of rentable square feet starts at the inside face of the exterior building wall, even where the

glass line is the dominant portion of the exterior wall, as opposed to using the inside of the glass line, as in the BOMA Standard Method.

Having two architects measure the same building and coming up with the same rentable square footage number is virtually impossible. There are, however, a number of quality control measures that should be implemented to ensure that the resulting number is as accurate as possible.

Quality first

The following are the quality control steps you should take to ensure accurate measurements and square footage calculations:

- Understand which method of measurement you are using and the definition of what is included, what is excluded and where the measurements are taken from.
- Don't scale off of old drawings. Get a set of the base building, architectural drawings and also physically measure the space in the field using a laser tape measure for the long dimensions. Sagging tape measures do not result in accurate measurements. Tolerances of 1/8" in measurements are typically allowed.
- Using computer-aided-drafting, input the outside boundaries of the building, based on the field measurements. CAD-input the interior exclusions, such as pipe chases, and major vertical penetrations, such as elevators and stairs, and their surrounding walls.
- For multitenant floors, determine the shared, floor common area to be measured.
- Determine the building common areas, and prorate that number throughout each floor of the building and to each tenant in the building, according to their percentage of the total useable square feet in the building.
- Create CAD polylines of the square footage boundaries to create accurate square footage calculations using CAD.

Other methods of square footage measurement are: the American Industrial Real Estate Association Standard, currently the only published standard that addresses measurement of leased industrial space in the United States; and the American Institute of Architects Standard, which addresses the calculation of architectural gross square feet of construction area and volume of buildings, including retail and residential occupancies.

Richard Fanelli is president of Fanelli-McClain Design Studios in Fairfax, which provides interior commercial and base building architecture with in-house engineering. E-mail: rich@fmstudios.com Phone: 703/563-5293, Ext. 121

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