

## **Approximately $\approx$ How Many Square Feet?**

*By William B. Tracy, MBA, NCARB*

Any smart real estate or design professional who quotes square footages qualifies their figures with the word “approximately”. The concise meaning of this word is elusive. In a dispute, experts will offer varying opinions of the variance it implies. Depending upon your point of view, the expected variance might be one or two square feet, or plus-or-minus 25%. What exactly does “approximately” means when applied to square footage?

Definitions of “approximate” in dictionaries agree only that it means “inexact.” Wikipedia defines an approximation as “...an inexact representation of something that is still close enough to be useful.” It adds that the amount of variation expected by an approximation depends upon:

1. Available information
2. Sensitivity of the problem to the data, and
3. Savings (usually in time and effort) that can be achieved

The author suggests two more considerations: the measurement method or standard applied and the perceived qualifications of the person making the approximation. These provide a useful framework for understanding approximate square footage.

**Available information:** The building itself may exist or may be designed but not yet built. A floor plan may be available or not, and if available, may be a current and accurate representation of the physical building or not. Floor plans may be CAD files, original drawings, paper prints that are subject to distortion by copying and degradation, or electronic scans in different file formats. It is mostly because of these different sources of information that the BOMA Standard specifies a 2% measurement tolerance when two qualified people independently measure a building. However, this tolerance does not limit what might be deemed to be “approximate”, which must recognize other factors below.

**Sensitivity of the problem to the data:** Square footage has many uses in design, construction and real estate. Marketing of properties, tax assessment, construction cost estimating, zoning and building codes, space programming, appraisal, leasing and property management all address square footage “problems” with wildly different “sensitivity to the data.” An approximation that is usable for one purpose, like zoning, may not suffice for another, like leasing.

**Savings that can be achieved by the approximation:** Put another way, the funding, time and expertise available will determine the level of accuracy you can achieve. At one extreme is the job of the tax assessor, who, with limited time and funding, employs square footage to value thousands of properties. It is ironic that the assessor’s square footages, which are among the least likely to be accurate, become public record figures that are relied upon by many. The other extreme occurs when square footage is a significant factor in a financial transaction, such as a lease. The total rent is often a direct function of the rentable area of the premises. In this case, and when the parties to the lease deem it important, square footage can be a focus of

negotiations. Then, the cost of the time and expertise to achieve high accuracy in the rentable area calculations can be small compared to other closing costs and the cost of potential measurement variance.

**Measurement method or standard applied:** There are many different standards and methods of measurement in real estate, including Gross Area, Rentable Area, Living Area and others. In the 80 measurement standards reviewed by the author, he has observed differences approaching 25% in measured square footage. An approximation without citing a measurement standard certainly implies a wider range of expected values than one that cites a published measurement standard like the BOMA Standard.

**Perceived qualifications of the person who makes the approximation:** There are no certifying authorities in the United States for those who measure square footage. Architects are the professionals most frequently cited in leases when an authoritative measurement is specified, but architects get no curricular training in the application of commercial measurement standards like the BOMA Standard, and do not require such knowledge to pass their licensing examinations. Real estate agents and appraisers likewise receive limited or no formal training in applying measurement standards, and property and facility managers with the RPA or CPM designations are not required to master them to earn those credentials. Absent a professional who can document specific expertise in measurement practices and standards, an approximation implies a wide range of expected values.

Based upon the author's experience in dispute resolution, variations in rentable area qualified by the term "approximately" often approach, and sometimes exceed, 10%, with higher variation expected from those who do not cite a measurement standard or are not qualified by training or experience to apply it. Applied to square footage, the term serves as a flag that warns "If this figure is important to you, you should ascertain the range of expected values or provide for further verification before you sign the lease or sales contract."

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