

Wall Calipers Improve Field Measurements in Gopher Colonies

By William B. Tracy, MBA, NCARB

Several years ago, while taking field dimensions for BOMA area calculations in a 40 year-old office building that was packed with full height interior offices (a type of property I call a “gopher colony”), I wondered if there was a better way to do the job. My laser is accurate to 1/16th of an inch, but none of the interior partitions were even close to being that orthogonal or plumb, and every wall was a different thickness. At door jambs where I could measure a wall thickness, I knew that the drywall mud was piled on thicker than it was on the rest of the wall, so besides taking time, it was inaccurate to measure wall thickness right at a doorway. Popping the ceiling tiles, another way to measure interior wall thickness, is also difficult to do with just a measuring tape since it’s difficult or impossible to see both sides of the wall at once.

So, a string of dimensions that passed through eight or ten interior partitions could easily be off by a couple of inches or more, making the precision of my laser useless. Others have had this problem, and someone must have come up with a way to quickly and accurately field measure wall thickness.

A few months later I thought I had found a solution while reading an article by the Historical American Building Survey (HABS) that mentioned a field measuring device called a wall caliper. The article claimed that wall calipers make fast and precise measurements of wall thickness. I searched the Internet but could not find anybody who makes them, so I called HABS and was informed that wall calipers hadn’t been made in 30 – 40 years!

Dejected, and too lazy to design and construct my own wall calipers, I continued to struggle with field dimensions every time I had to measure one of those darn gopher colonies until one day, when I was scanning a catalog of forestry products, I saw a device called a tree caliper. Made of lightweight aluminum, they are made in different sizes to measure tree diameter up to 36” and are available with either imperial and/or metric scales. They would be just what I need only if I could figure out how to modify them to reach around door and window jambs.

The result of my efforts is pictured here and I can say that they work quite well. The calipers are made by the Swedish company Haglof (www.haglofsweden.com) and I purchased mine, a basic 18 inch model, from a U. S. distributor Ben Meadows (www.BenMeadows.com). My only modification was to attach two aluminum blocks, each 1: X 1” X ¼” thick, to the caliper arms. This allows the wall calipers to reach around door and window jambs up to 2” deeper than the wall. This little device has saved far more time than the \$116 it cost and has increased the precision of my field measurements in those gopher colonies.

