Square vs. rectangle: Do the math

Does the shape of a building matter to both retail and industrial properties? Most people think about square vs. rectangular on retail properties. The rectangular shape affords more frontage for storefronts and is therefore more valuable to retail tenants. Does this same theory apply to industrial properties?

I was recently approached by a borrower about doing a loan on square-shaped light-industrial building. The borrower felt he had a value on the building of about $4 million. He provided comparables to support his valuation on the surface. The transactions looked viable, so I did a site inspection. After physically inspecting and reviewing the comparables, they were all built in the ’70s of similar construction. Even though on paper the buildings looked comparable, there was one difference: The subject building was square and all the comparables were rectangular. This shouldn’t make a big difference, should it?

Having owned and made loans on hundreds of light-industrial properties, I can confirm the concept of square vs. rectangular applies to industrial properties as well. A square building vs. a rectangular-shaped building can make a huge difference, especially on properties larger than 30,000 square feet. In the example above, the value difference was quite profound (almost 30 percent less than the rectangular-shaped buildings).

All of the rectangular buildings along with the subject property (square building) were multitenant, but the rents were higher in the rectangular building. The rectangular building was built in a modular fashion of 5,000- to 10,000-sf increments. Tenants could occupy a 5,000-sf space or easily occupy multiple spaces with the removal or addition of a preframed opening between the units. Each 5,000- or 10,000-foot space was individually metered for gas, electric, etc., with separate entries and a dock door. All the utilities run along the rear of the building, so there is easy access to tap into gas, sewer, water, etc., as needed. This is very functional space for most light-industrial users.

The square building, on the other hand, had a dividing wall in parts of the warehouse and also some separate office space. Constructing multiple fire walls to demise the space is prohibitive on a retrofit in a large square building (a typical firewall in many areas is a metal stud wall with two sheets of drywall on each side to the building deck). The building was being leased out on a modified gross level since it was so difficult to retrofit all the separate utilities and the original occupant was a large single tenant. There was substantially less value in the square building as opposed to the rectangular building. This difference in value is amplified as the building size increases.

Furthermore, the leasability of the square building is considerably less desirable than the rectangular building, so the square building also traded on a higher cap rate (i.e., rate of return required by a prudent owner; the higher the cap rate, the lower the building value). The spaces were larger (35,000 sf was the smallest space) and therefore much more difficult to lease than smaller spaces that could be combined if desired for larger spaces as the tenants needs changed.

Although all squares are mathematically rectangles (my wife is a high school math teacher), rectangular industrial buildings typically command a premium over square buildings.