Land/Site Analysis—Part 4

by David R. Lewis, ASA, SR/WA

There are a number of professions involved in the site analysis process. Such professions include planning, real estate, architecture, landscape architecture, law, and engineering. Some of the technical terms used by each profession have different meanings or perspectives. Planners often use the term “land planning” to describe an organizational process that starts with intended use and site selection as the initial step in the planning process. The next step includes making an inventory of the internal and external features that encompass physical, cultural, and legal attributes. Negative and positive aspects are inventoried. The next step is called site analysis and includes a synthesizing process. Compatibility considerations are part of the analysis process. The next steps include development concepts and, ultimately, development plans. Implementation is the final phase.

In the book *Site Planning*, Kevin Lynch defines site planning as follows: “Site planning is the art of arranging the external physical environment to support human behavior. It lies along the boundaries of architecture, engineering, landscape architecture, and city planning, and it is practiced by members of all these professions. Site plans locate structures and activities in three-dimensional space, when appropriate, in time.”

The users of appraisal services rely on real property appraisers to analyze primarily the economic considerations of real property. By definition, economics is a social science. Therefore, how property supports human behavior is an appraisal consideration. Economics is also a study of the efficient use of resources. The primary measure of the efficient use of property, for income purposes, is the net operating income. The relationship of income and expenses is analyzed. By definition, the greater the net operating income, the more efficiently the property serves the needs of the owners. How it supports human behavior is a financial consideration.

One technique in analyzing land/site is to determine how efficient the shape of the site is. In the sales comparison approach to value, size and shape are adjustment considerations. Consider two sites that are both 20,000 sq. ft. in area. Site A is square in shape with 121.42-ft. sides. Site B is rectangular and is 100 ft. wide and 200 ft. deep. Both sites have 10-ft. building setbacks along all sides. Site A has 4,456.8 sq. ft. that is within the setback area; approximately 78% of the total site area can be used for building purposes. Site B has 5,600 sq. ft. of area within the setback area; approximately 72% of the total site area can be used for building purposes. In addition, Site A has approximately 486 linear feet of perimeter and Site B has 600 linear feet of perimeter. Based on possible building area and perimeter costs, Site A is considered more efficient than Site B.

Shape is important in how well a parcel functions for certain human activities. It should also be analyzed on how it efficiently satisfies our convenience as well as comfort. The

ability to understand and orient our activities is essential to having an efficient environment. In the above example consider the two sites in an urban setting. Site A may provide better flexibility in locating buildings and other activities. If sun exposure is important, the shape provides for better sun exposure. However, Site B would provide for deeper setbacks from a busy street.

It all depends on the needs of the potential users. If the properties were zoned for single-family use, the analysis should consider which shape is best suited for the typical house design in the neighborhood. If on-site parking was a significant marketability factor, the wider lot would provide for more efficient on-site parking.

Efficiency should be measured in terms of its ability to satisfy the needs of the users in the market. Marketability of property is improved when the property has a high degree of efficiency. The question for appraisers is, what are the market participants willing to pay for greater efficiency?