

# VALUING AN ENCROACHMENT

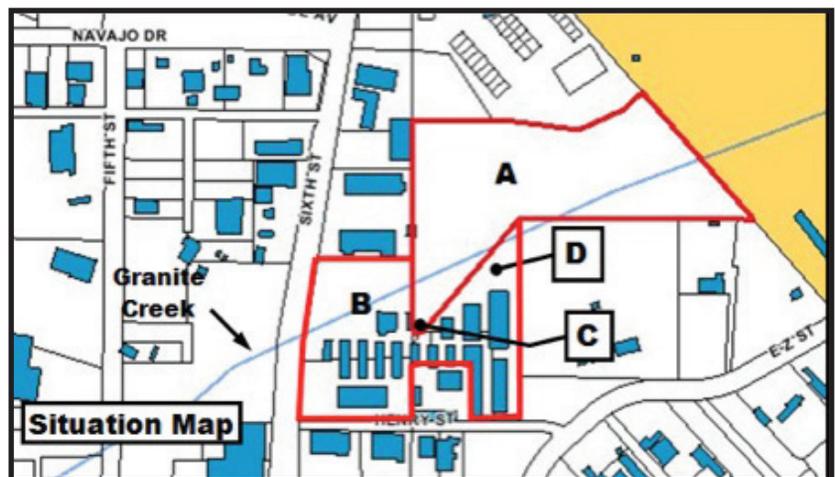
BY MICHAEL WOLFF

As an appraiser, it's always enjoyable to help parties in dispute resolve their problem and achieve a mutually beneficial result. Such was the case when a property owner encroached onto land that was owned by the city of Prescott, Arizona. This situation involved a small parcel of that had no standalone value and was taken by an adjoining property owner.

## The Situation

In an effort to expand the greenways trail system along Prescott's creeks, the city acquired 5.24 acres of vacant land along Granite Creek (area A). The city developed a nature trail along this portion of the creek, and it was considered an ideal place for recreational walking.

As shown on the situation map, property A is irregularly shaped and its southwest corner projects sharply toward an adjoining private parcel, shown as property B. The owner of B later encroached into the southwest corner of property A (area C). This encroachment involved tree and vegetation removal and the addition of fill material and grading to become flat and level with the adjoining land in property B. It was also enclosed with fencing. Although the city could have insisted that the encroaching party withdraw from and restore the encroached area, it decided to sell this small area to the encroacher. This led to the need for an appraisal.



During the appraisal process, I observed that a portion of property B entered into the Granite Creek riparian space (area D). Property D is not developable, because it is low-lying with regular water flows and flooding. I suggested that the city consider a partial trade, where area D could be traded for area C with cash to balance the trade. This idea was greeted positively, as it would increase the riparian area of the trail system and help resolve the mutual problem. My assignment was expanded to include this trade.

Situation Summary		
#	Title	Description
A	City Property	irregular riparian
B	Private Property	private land mini-storage
C	Encroached Property	land taken by B
D	Trade Property	land traded for C

## Market Value Equivalency

Market value is normally associated with a commodity's ability to command value in the marketplace and is determined by the interaction between buyers and sellers. But when a piece of property is involved that does not have independent value, it is usually valued as part of the whole. Although too small to have standalone value, it still has value because it contributes to the larger total property.

Both areas C and D were valued as parts of the whole, not as independent properties. For this situation, the whole property is the sum of B plus C. Area C is valued as part of this total, because at the time of valuation, it had been completely seized by the encroaching party, graded, fenced

off, and used for storage as part of his business enterprise. For all practical purposes, B and C had become one property. Area D was valued as part of this total also (B plus C), because at the time of valuation, it was actually part of property B and completely unaffected by the encroachment. It was separated out only for trade purposes. The survey map shows areas C and D in detail.

### Value Varies With Location

Just as each point or sub-area within a given property contributes to total value, each also varies in value with some parts contributing more than others based on their individual characteristics. There are several issues associated with property B that cause its value to vary. The areas within Granite Creek have lower value, the level buildable areas have higher value, the narrow constricted areas have lower value and the useable frontage has a higher value. Area C is on par with the buildable areas. Area D has lower value because of the creek, but contributes positively by allowing greater density in

other areas. In terms of trading, area C has greater unit value than area D.

### Comparables Sales Analysis and Overall Value

A search was made in and around Prescott for sales of vacant industrial properties with character similar to that of the whole property or at least similar enough to suggest value. From several hundred initially considered, the search resulted in 15 vacant comparable sales useful for this analysis. A relatively large number of comparable sales were used to better establish overall size-to-value trends. All were adjusted to current time equivalency.

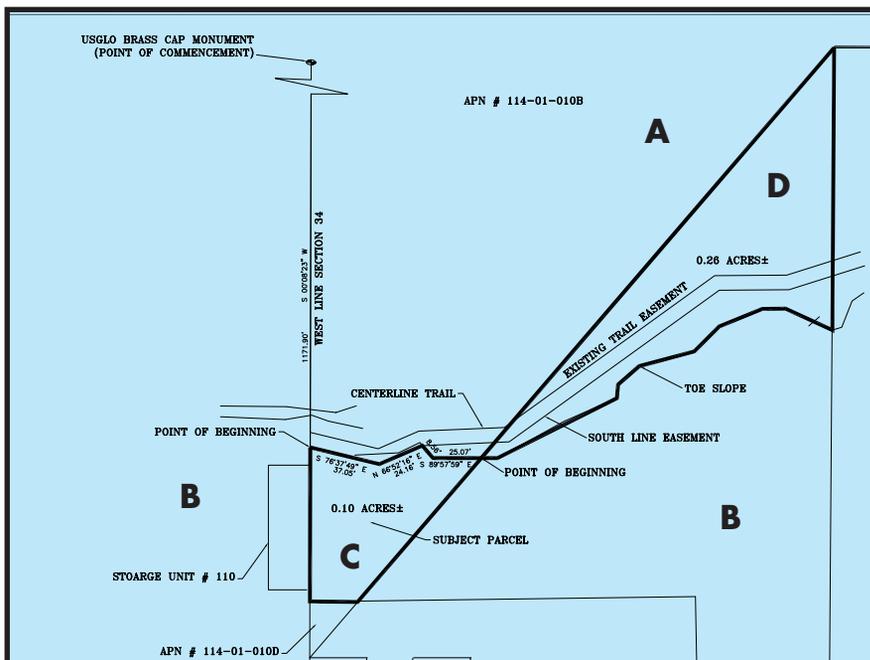
It was found that value varied with size, and that as size increased, unit value tended to decrease and vice versa. Each comparable was evaluated by comparing total sale price per square foot of lot area to total square feet. No one comparable reflected value better than another, so all were equally useful and equally weighted.

### Value Contribution

Area C's value is based on its contribution to the whole, and it is equivalent to the other areas of high utility within property B. From the analysis of the data, its unit value will be near \$3 per square foot. Therefore, area C's contribution value is therefore \$3 per square foot multiplied by 4,305 square feet, which totals \$12,915 and is rounded to \$12,900.

Since area D was created to act as a partial trade for the encroached area C, its value is based on its contribution to the whole property's value. It was not a separate parcel prior to this appraisal. Area D is heavily impacted by the Granite Creek wash channel and floodplain, resulting in a property that seems to be of no economic utility. However, this area does contribute positively to the whole property's value by allowing for increased density in other parts and adding to its overall ambiance. The key question is not *if* value is contributed, but rather *how much*. To answer this question, I considered various sales regionally with similar and relevant situations, namely contribution value of land that is floodplain/wash impacted to otherwise buildable whole property. I developed a ratio between floodplain areas and non-floodplain areas that could be applied to the subject situation.

This search resulted in suggestive comparisons in Prescott Valley Unit 16, where sales of industrial use properties have occurred, both in and out of a floodplain. Activity for floodplain lots results from speculation that the Agua Fria River may someday be channelized, thereby removing many lots from floodplain classification and causing significant value increases. While these are not perfect comparisons, they do point us in the right direction by comparing the floodplain impacted lots in Unit 16 to the non-impacted lots. From this comparison, a ratio can be derived and



This survey map shows the relationship of area C (4,305 square feet) and area D (11,236 square feet)



Left photo shows area C after encroachment and at time of trade. Trees and other shrubbery have been removed and the lot has been graded flat. Right photo shows area D at time of trade. This area often receives heavy water flow.

applied to the subject properties. When first choice comparisons are not available, the appraiser must then consider lesser choices.

Prescott Valley, Unit 16 is approximately ten miles northeast of the subject properties and is part of the same general real estate market. It is part of the original subdivision developed in the 1960's and is located along an old railroad line which now stands abandoned. Roughly half the unit is located within the Agua Fria floodplain. Only lots outside the floodplain have been developed, and these are industrial in terms of zoning and use. Most of the lots in the floodplain are still zoned residential multi-family, but should development occur in the future, it will likely go industrial.

By comparing sales of lots inside the floodplain to those outside, a ratio was developed. In this case, 18 sales were found within the floodplain averaging \$1.73 per square foot and nine were found outside averaging \$5.52 per square foot. The value ratio between the floodplain impacted lots and the non-floodplain lots is 31% (\$1.73 divided by \$5.52). This ratio suggests the value for floodplain areas in relation to the total

area. Area D's value equivalence can then be calculated as follows:

Description	Amount
Area D size (sq. ft.)	11,236
Base value (\$ per sq. ft) x	\$3.00
Subtotal	\$33,708
Contribution value ratio x	31%
Net value equivalence	\$10,449
Rounded net value	\$10,500

### Trade Summary

At this point, the analysis has been completed and value equivalence has been developed for both the encroachment area C and for the trade area D. If the values for each parcel were equal, then a title trade could take place easily with no monies or other commodities changing hands, except for incidental costs. In this case, the values are different and necessitate cash to balance the trade. Below is a summary of the final trade arrangement and the market value equivalencies.

Trade Summary and Conclusion	
Value Equivalence	Amount
Encroachment area C	\$12,900
Trade area D	- \$10,500
<b>Owed to City to balance trade</b>	<b>\$2,400</b>

In any exchange, sale, or transfer of title to property, various incidentals to the transaction will occur, such as surveys, title insurance, appraisal, recordings, title company services, property taxes and historical/environmental assessments that should also be taken into account by the parties involved.

In the end, the appraisal played a vital role in helping the two parties resolve the problem caused by the encroachment. ✪



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