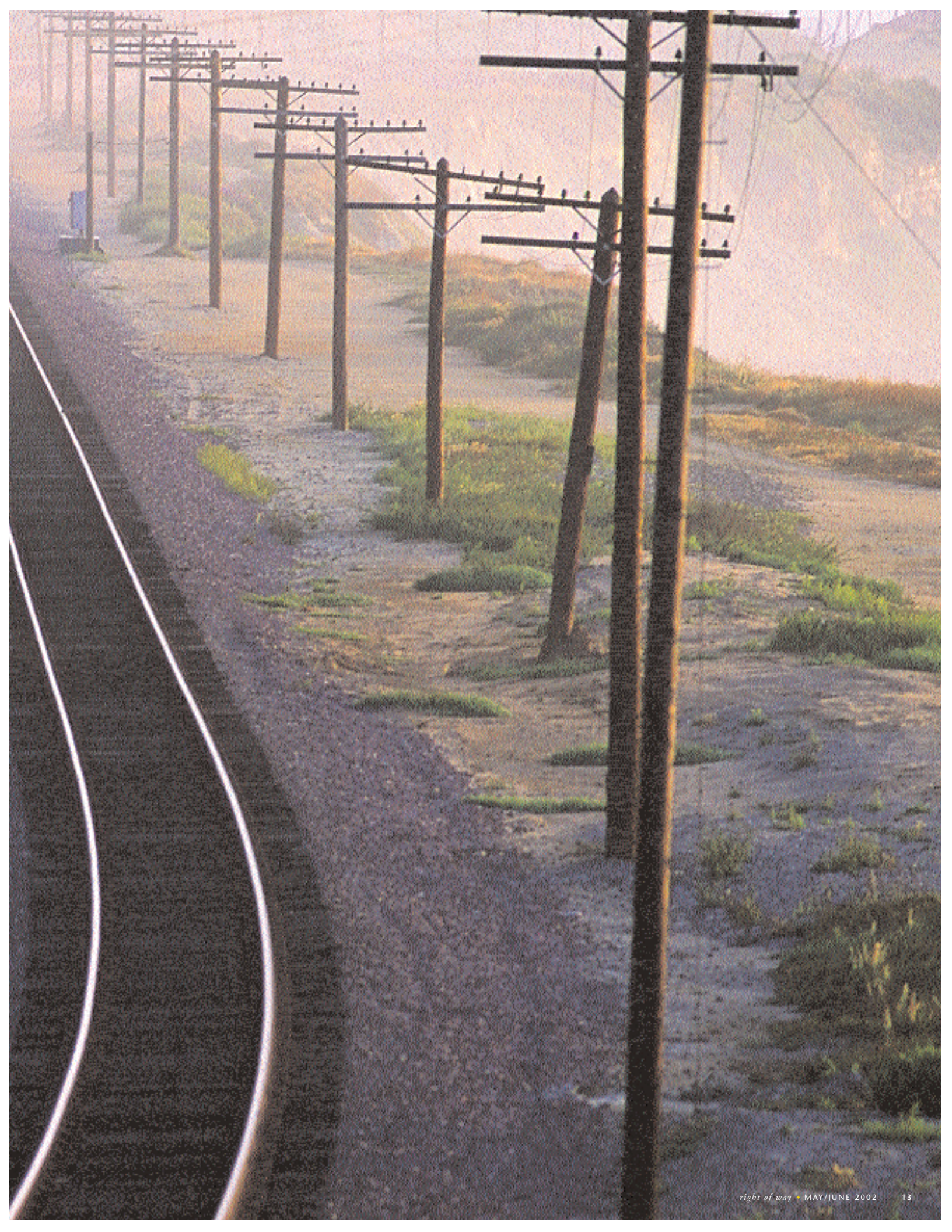



An aerial photograph of a road winding through a dense forest. The sun is low on the horizon, creating a warm, golden glow that illuminates the road and the surrounding trees. The road is a two-lane highway with a white center line and a white edge line. The trees are mostly green, but some are in shadow, creating a mix of light and dark green. The overall mood is serene and natural.

THE CONTINUING EVOLUTION OF CORRIDOR APPRAISING (Back to the Basics)

By Charles F. Seymour, CRE, MAI

The term “corridor” has been used by real estate appraisers for 30 years or more, and yet there is no complete agreement on how to *appraise* one, nor is there even a clear consensus on how to *define* one. Those who sell, lease, buy, rent or appraise corridors, or argue in court, technical journals and seminars about them, seem to assume that this term means the same thing to all interested parties. But apparently it does not.





This article is intended to explain, clarify, defend, update and rename the methodology first posited over 24 years ago, which has been in continuous and successful use ever since.

WHAT IS A CORRIDOR?

A corridor is a long, narrow strip of land or real property rights for which the highest and best use is to provide an economic or social benefit by connecting the end points, and sometimes serving intermediate points along the way.

Thus a corridor is a *connection*. If the highest and best use of the strip of land is for anything other than to make the connection, it is not a corridor, and should not be valued as one.

A breakdown of elements in the above definition shows:

1. It is **long** enough to connect the end points.
2. It is **narrow** in that it is just wide enough to perform its connecting function. Rail corridors may be 200-feet wide or more. Pipeline corridors may be 10-feet wide or less. Any part of the property substantially wider (than just wide enough) may not be part of the corridor, and therefore, should not be valued as one. It may well be excess land to be appraised for its net liquidation value (its value for non-corridor use) by a typical sales comparison approach.
3. It is **land** with its full legal and physical rights, or some defined portions of those property rights.
4. **Economic Benefit** is its ability to support, or be supported by, dollar earnings, such as a prosperous freight railroad or electrical transmission lines.
5. **Social Benefit** is a public purpose, which, while not self-supporting, is considered important enough to receive full or partial public support, such as a highway or a commuter rail line.
6. **End Points** are the terminations of the corridor under study, but may well also be connections to other corridors.
7. **Intermediate Points** are enterprises or communities between the end points, which are served by, and benefit from, a corridor, such as a factory or a commuter rail station.

Most corridors provide these connections for energy, transportation or communication purposes. Since there are many specific uses within each of these functions, corridors themselves are *not* special purpose properties in the usual sense, and are best valued by a sales comparison approach rather than by the cost approach. But, like special purpose properties, the market for them *is* usually quite thin.

MARKET VALUE

There is a proliferation of definitions of market value. They vary from state to state, from court to court and text to text. All of them seem to focus on an economic value and to assume that the players in the markets always act like "economic men." Since real live parties to real live market transactions seldom, if ever, act this way, appraisers try to gather arrays of market data in order to extrapolate market value from a group of market prices. This is not easy with a market as thin as





the market for corridors. For this reason, when valuing corridors a return to the “justified price” concept of value is suggested. Thus the market value of a corridor is really closer to:

The price which a well-informed buyer acting intelligently, voluntarily and without necessity is justified in paying and which a well informed seller, acting intelligently voluntarily and without necessity is justified in receiving for the property, as of the date of appraisal.

Even this has some generic differences from the real world, since most transactions are motivated by necessity, or at least strong desire, on one or both sides. This is particularly true for corridor sales, many of which have only one logical buyer and one logical seller, but still represent market transactions capable of analysis. Appraisers are usually furnished with a value definition and try to conform to it. In corridor appraising, it is at least helpful to keep the venerable “justified price” concept in mind, even if some other definition is required.

VALUATION APPROACHES TO CORRIDOR VALUE

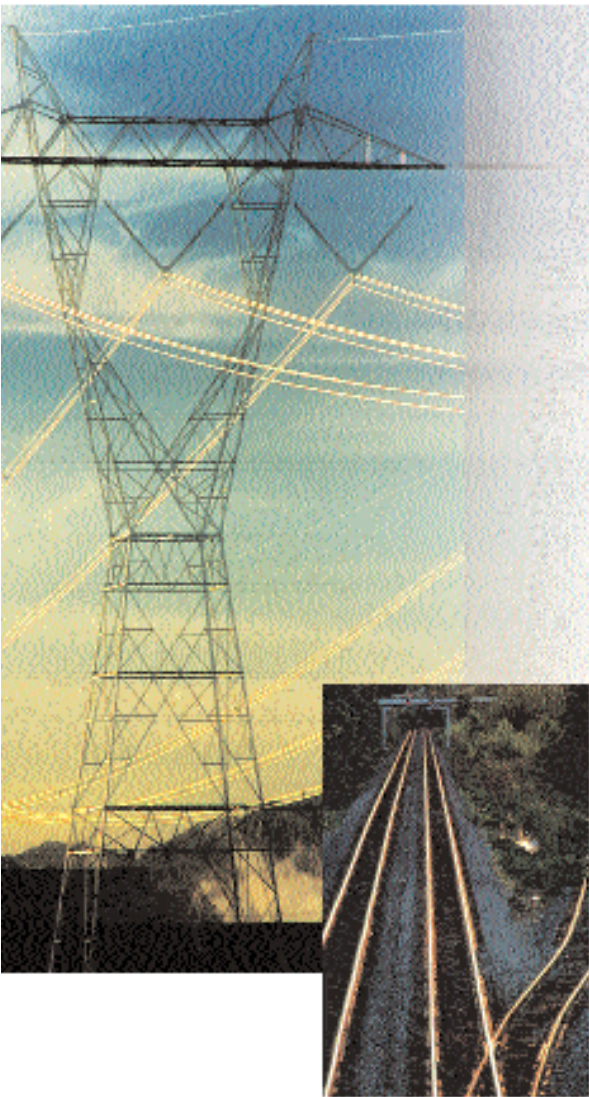
Appraisers learn early in their careers that there are three fundamental approaches to value: sales, cost and income. But what is to be done when the cost and income approaches are simply not applicable and there are only a small number of corridor sales, and they are of rather poor quality? This appears to be a common dilemma appraisers face when valuing corridors. Yet corridors are sold and/or leased in the market place by prudent and knowledgeable sellers and lessors, and bought or rented by prudent and knowledgeable buyers and lessees. The market exists, even though it is thin and difficult to measure. But it *can* be measured.

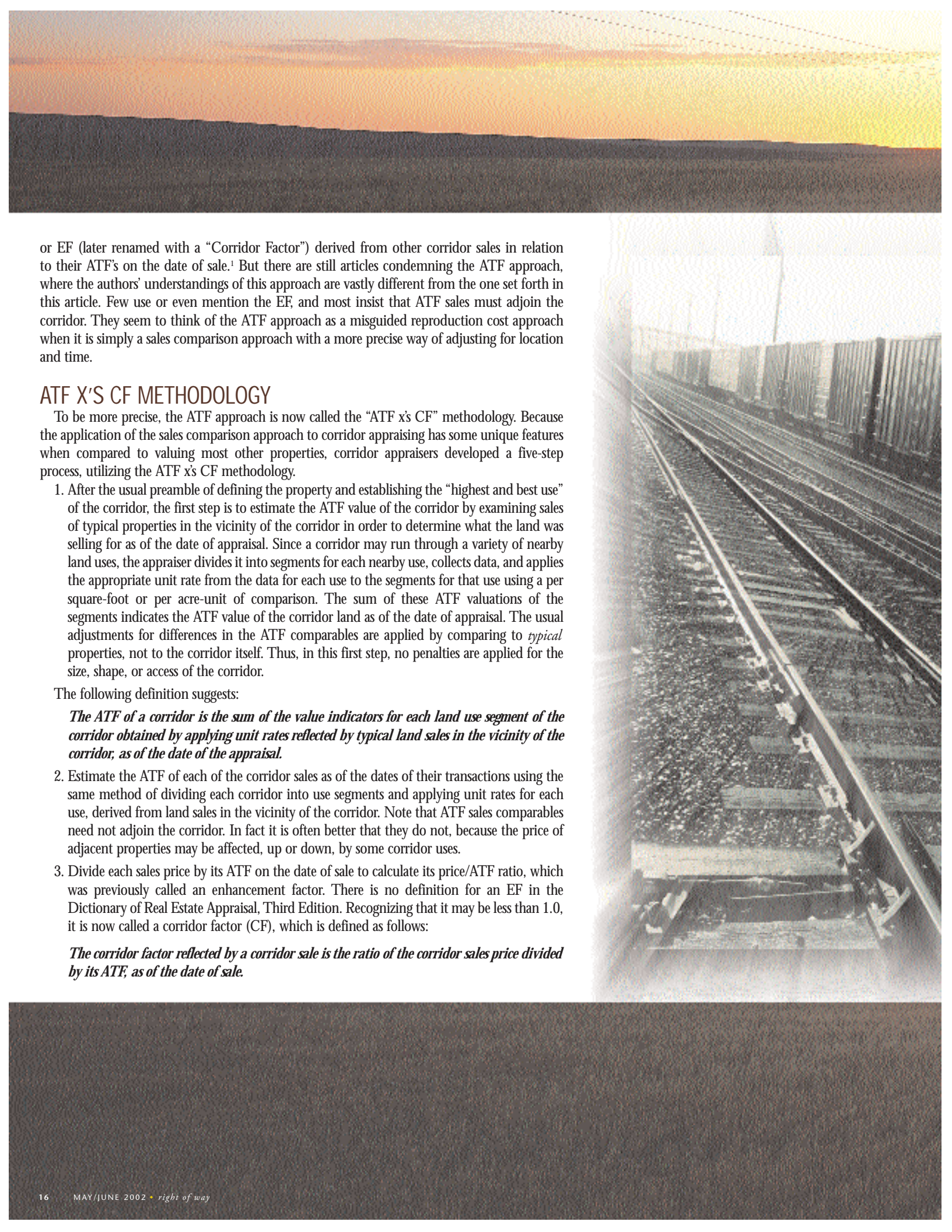
It must always be remembered that there are no perfect sales comparables since, by definition, no two properties are identical. The *quality* of the sales comparables differs only as to the extent of their imperfections. The task of the appraiser is first, to find the best available (or most comparable) comparables, and then make rational allowances for all the ways in which they differ from the subject property.

As in any real estate appraisal, the first task in corridor appraising is to define the subject property in its physical and legal dimensions. Is it a full bundle of physical rights or only part of the surface, subsurface or air rights? Is it a full fee title or some lesser legal estate such as an easement, license or permit? If sales comparables that agree completely with all the physical and legal aspects of the subject cannot be found, as is usually the case, rational allowances must be made for these differences.

If a corridor is wide enough to perform its connecting function, its width and area are of little importance. So, when corridors sell in the market place, the usual yardsticks of comparison such as price per acre or price per square foot are not only meaningless, but can also be misleading. Price per mile or per lineal foot is more important, but is extremely difficult to adjust in a direct comparison process, particularly for location. When appraising a corridor running through rural land, how can sales of corridors running through heavily industrialized areas be compared even on a per lineal foot or per mile basis, without considering some method of taking the differences in underlying land value in each location? Appropriate allowances must be made for all of the other differences between the subject and each sales comparable such as time, width, length, curvature, and so forth.

Corridor appraisers should first estimate the “across the fence” (ATF) value by examining sales of typical properties in the vicinity of a corridor, and then apply an “enhancement factor”





or EF (later renamed with a “Corridor Factor”) derived from other corridor sales in relation to their ATF’s on the date of sale.¹ But there are still articles condemning the ATF approach, where the authors’ understandings of this approach are vastly different from the one set forth in this article. Few use or even mention the EF, and most insist that ATF sales must adjoin the corridor. They seem to think of the ATF approach as a misguided reproduction cost approach when it is simply a sales comparison approach with a more precise way of adjusting for location and time.

ATF X’S CF METHODOLOGY

To be more precise, the ATF approach is now called the “ATF x’s CF” methodology. Because the application of the sales comparison approach to corridor appraising has some unique features when compared to valuing most other properties, corridor appraisers developed a five-step process, utilizing the ATF x’s CF methodology.

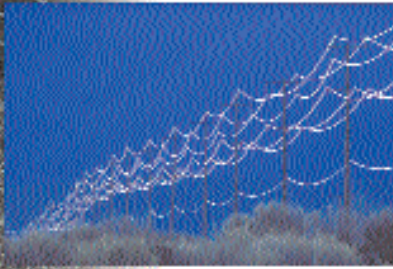
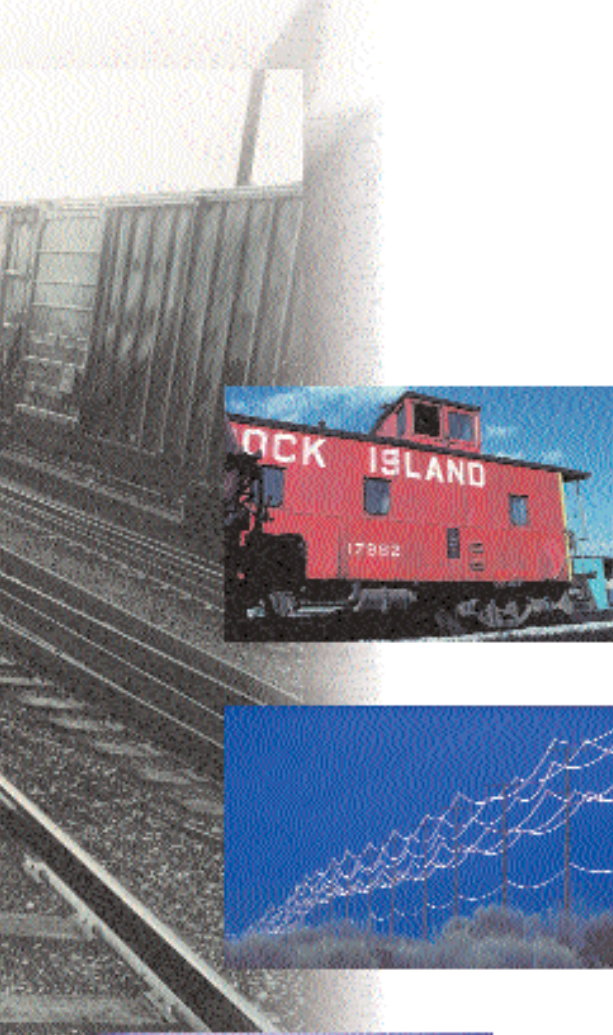
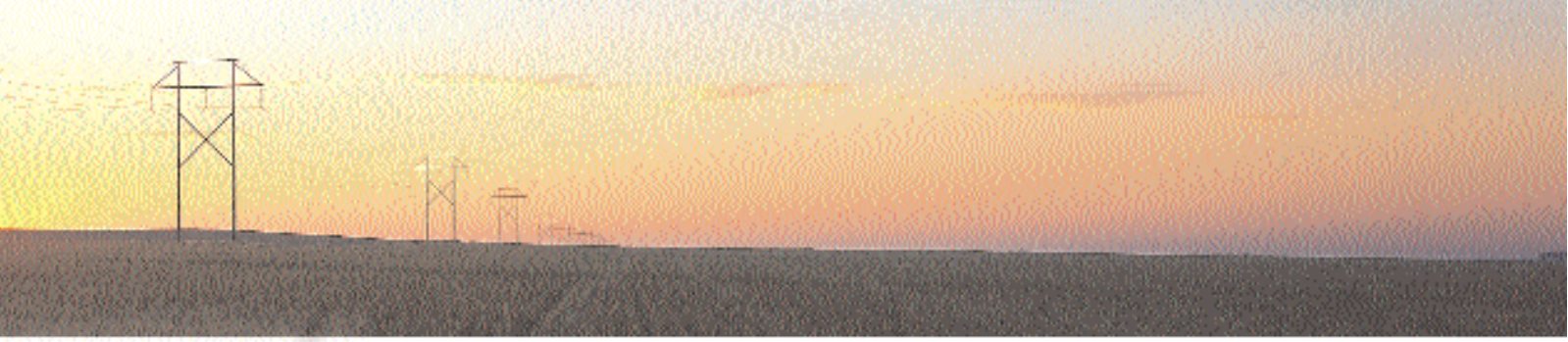
1. After the usual preamble of defining the property and establishing the “highest and best use” of the corridor, the first step is to estimate the ATF value of the corridor by examining sales of typical properties in the vicinity of the corridor in order to determine what the land was selling for as of the date of appraisal. Since a corridor may run through a variety of nearby land uses, the appraiser divides it into segments for each nearby use, collects data, and applies the appropriate unit rate from the data for each use to the segments for that use using a per square-foot or per acre-unit of comparison. The sum of these ATF valuations of the segments indicates the ATF value of the corridor land as of the date of appraisal. The usual adjustments for differences in the ATF comparables are applied by comparing to *typical* properties, not to the corridor itself. Thus, in this first step, no penalties are applied for the size, shape, or access of the corridor.

The following definition suggests:

The ATF of a corridor is the sum of the value indicators for each land use segment of the corridor obtained by applying unit rates reflected by typical land sales in the vicinity of the corridor, as of the date of the appraisal.

2. Estimate the ATF of each of the corridor sales as of the dates of their transactions using the same method of dividing each corridor into use segments and applying unit rates for each use, derived from land sales in the vicinity of the corridor. Note that ATF sales comparables need not adjoin the corridor. In fact it is often better that they do not, because the price of adjacent properties may be affected, up or down, by some corridor uses.
3. Divide each sales price by its ATF on the date of sale to calculate its price/ATF ratio, which was previously called an enhancement factor. There is no definition for an EF in the Dictionary of Real Estate Appraisal, Third Edition. Recognizing that it may be less than 1.0, it is now called a corridor factor (CF), which is defined as follows:

The corridor factor reflected by a corridor sale is the ratio of the corridor sales price divided by its ATF, as of the date of sale.




Most corridor sales support a CF between 1.1 and 2.0. But there are some exceptions. How much more (or less) than ATF did this corridor sell for? When the factor calculates to less than 1.0, it is an indication that the highest and best use may not be for corridor purposes. The differences in physical and legal estates have not been measured properly, or that there is likely to be an unusual delay before the economic, demographic, social, and political forces combine to support this projected corridor use at some future date which, in effect, reflects a discount for delay.

4. With an array of CF in hand, the appraiser uses the comparative process to account for the differences between each sale and the subject property, and selects a factor most appropriate for the subject property. Among the many characteristics to be considered in this judgment process are:

- a. Importance of the end points
- b. Importance of other points along the corridor
- c. Density of development along the corridor
- d. General level of ATF along the corridor. While the ATF does enter the equation by the study of nearby land sales, there is sometimes a further consideration of this characteristic supporting the CF as well.
- e. Demand for corridor use
- f. Availability of a substitute corridor
- g. Length
- h. Width
- i. Straightness and curvature
- j. Grade, compared to surrounding terrain
- k. The number of parcels that would have to be acquired to assemble a substitute corridor
- l. Additional income generated by corridor occupancies
- m. Corridor use
- n. Other appropriate factors on a case by case basis
- o. Physical and legal characteristics

With particular regard to the adjustments for differences in physical and legal characteristics, corridors often involve less than the full bundle of legal and physical rights, so the appraiser must use best available data to allow for these differences between the subject and each of the corridor sales. Thus an appraisal of the rental value of a subsurface easement must be adjusted for these physical and legal factors when compared to each corridor comparable in selecting the appropriate CF. As a result of applying this process, the appraiser selects the most appropriate CF.

In addition to this qualitative approach there is also a quantitative approach by considering arrays of factors reflected by past corridor sales for each corridor use, and comparing them to the use of the subject corridor. For example, while the entire array of corridor sales (after eliminating erratics) indicates that most corridor factors lie between 1.1 and 2.0, sales for freight rail corridors tend to support 1.1 to 1.2 while sales for electrical transmission lines are more often in the range of 1.5 to 1.7.



5. Multiply the ATF of the subject property by the appropriate CF to get an expression of corridor value.

Note that, while the ATF sales are not for corridor highest and best use, the methodology produces a value for corridor use by using the CF reflected by corridor sales.

As previously indicated, the cost and income approaches are simply not applicable to corridor appraising. Such so-called improvements as viaducts, bridges, tunnels grading, and so forth, do not affect corridor value. They are merely part of the connection. Buyers do not pay more, and sellers do not receive more, because the connection requires such elements. Occasionally, however, the poor condition of some of these items may endanger the connection, and some adjustment may be required to allow for their renovation or repair. Many corridor sales include one or more of these elements, and are thus already reflected in the CF.

SANITY TEST

The ATF's CF methodology works. But let us go "back to the basics" and give it a "sanity test." Does the blended combination of ATF from nearby sales and corridor factor from corridor sales elsewhere cover all the bases required in the sales comparison approach?

The Appraisal of Real Estate, Eleventh Edition, suggests 10 principal "Elements of Comparison" to be used in the sales comparison approach.

1. Real Property Rights Conveyed

Before selecting an appropriate corridor factor to apply to the ATF of the subject, the physical and legal characteristics of the subject property are compared to the physical and legal characteristics of each corridor sales comparable. Since there are usually some differences between a sale and the subject, this is an important consideration requiring the use of the appraiser's best judgment to allow for the differences.

2. Financing Terms

While purchase-money or third party financing are seldom used to support sales of corridors, any differences in the financial support for corridor sales and the subject must be considered when selecting an appropriate CF.


3. Conditions of Sale

Comparative differences in conditions of sale are considered when selecting an appropriate CF. Observed conditions include a right for the seller to continue specified operations over the corridor after the sale, the retention of certain legal or physical rights for which compensation is being paid, or certain obligations for the buyer to continue to serve customers along the way. The buyer is sometimes even required to purchase a replacement corridor for the seller. All such differences must be considered carefully, because they affect the price paid.

4. Expenditures made immediately after purchase

While corridors are land and not improvements, the buyer may have to make repairs to elements of the connection such as viaducts, bridges, tunnels, grading, and so forth, in order





for the connection to function. This enters the valuation process in the comparative selection of the CF.

5. Market Conditions

Market conditions are considered in estimating the ATF of the subject property as of the date of valuation. This is often called an adjustment for *time*. No further adjustment is needed for the difference in time between the corridor sales and the appraisal, since the ATF's and the CF being considered, are all as of the same dates as the corridor sales.

6. Location

It is fundamental to the ATF's CF methodology that the comparison of the underlying land value at the location of the property (as of the date of the appraisal for the subject, and as of the date of sale for each comparable) is a basic factor in the valuation equation. Corridor sales simply cannot be compared to the subject property by any usual square or lineal yardstick of comparison, then adjusted for some assumed percentage difference in location. The ATF methodology takes out the guesswork and bases the locational adjustment on current land sales in the vicinity. The importance of the end points and the points along the way are locational factors considered in the selection of the CF.

7. Physical Characteristics

Differences between the physical characteristics of the subject and each sale comparable enter the equation by using a market-derived CF. Since a corridor is a connection, the width and resulting area are of minor importance so long as the corridor is wide enough to perform its function. Length is more important. Straightness, curvature and topography are also among the important physical factors to be compared.

8. Economic Characteristics

While the income approach is not applicable in corridor appraising, any differences in economic characteristics between the subject and the comparables are captured in the ATF's CF formula.

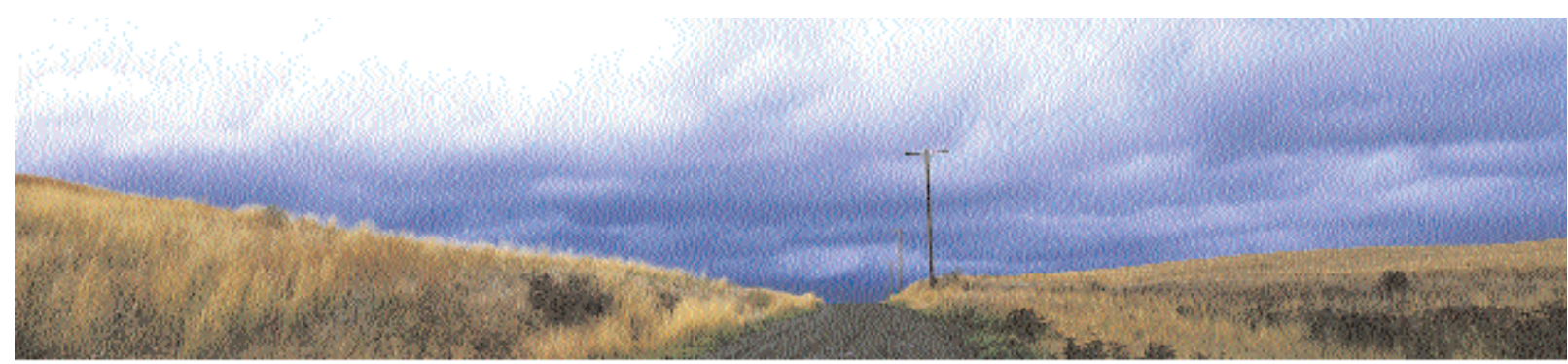
9. Use

It could be held that both the subject and all the corridor sales comparables have the same primary use: for corridor purposes. However, the analysis of sales arrays for different corridor uses such as freight rail, commuter rail, overhead electrical transmission lines, underground pipe or fiber optic lines, and so forth, and does show some differences that must be considered in selecting the CF.

10. Non-Realty Components of Value

No evidence of differences in non-realty items appears in past appraisals of corridors. If any were present, they would enter the equation at the CF selection.

Thus the ATF's CF methodology (as discussed in this article) is a sales comparison approach, and considers all of the elements of comparison traditionally utilized in this approach.



WHEN IT'S NOT A CORRIDOR AFTER ALL

Not every long, narrow strip of land or property rights meets the definition of a corridor. Some never did, and others once did but have now been "abandoned" because they no longer perform the defined function of creating economic or social value by connecting the end points.

Abandonment of a former corridor previously used by a regulated company is a legal process requiring approval of the appropriate supervisory agency. But, since highest and best use is a market concept rather than a legal process, some corridors that have been legally abandoned by the regulatory agency for their former primary use, may still have a highest and best use for some other corridor purposes, particularly if some secondary uses are still in place. The opposite is also true. Some corridors that have not yet been legally abandoned for their discontinued primary use may no longer have a highest and best use for corridor purposes for either their primary or secondary corridor use unless there are viable secondary uses existing or available. Thus the appraiser's study of highest and best use is of particular importance in corridor appraising.

When the appraiser determines that his subject does not meet the definition of a corridor, the usual sales comparison approach can appraise it for its net liquidation value with appropriate penalties for size, shape and access. Some appraisers have used the ATF's CF methodology, and analyzed sales of abandoned corridors in relationship to their ATF on the date of sale. These tend to show negative corridor factors ranging up to 0.35, with the usual exceptions for erratics.

SUMMARY CONCLUSIONS ON VALUING CORRIDORS

1. The Cost Approach and the Income Approach do not work.
2. Only the Sales Comparison Approach can be used.
3. The usual square or lineal yardsticks of direct comparison are extremely difficult or impossible to adjust, particularly for time and location.
4. The ATF's CF methodology seems appropriate.
5. Time and location can best be measured by estimating ATF from nearby land sales.
6. The CF can be estimated by a careful analysis of best-available corridor sales.
7. The resulting estimate of corridor value appears consistent with market actions.

REFERENCES

1. *Valuation of Transportation/Commuter Corridors* – The Appraisal Journal for October 1978. (Co-Author)
2. Eleventh Edition of *The Appraisal of Real Estate* – Appraisal Institute.
3. *The Dictionary of Real Estate Appraisal* – Appraisal Institute.

The definitions in the article are by the author.

¹ Dolman, J. and Seymour, C. (October, 1978) Valuation of transportation/communications corridors. The Appraisal Journal.

