

APPRAISING PIPELINE EASEMENTS

A Practical Approach

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The appraisal of pipeline easements is more difficult than one might first assume. This is primarily due to legal issues, partial interest, language used in the easement agreement and scarcity of comparable data. Appraisal assignments for pipeline easements are generally classified into two categories: 1) new or proposed pipeline easements; and 2) existing pipeline easements. Pipeline easements are typically found in conforming size lots that are vacant or improved, or as part of an existing transportation corridor.

Title acquired for pipeline use is most often acquired by easements. This makes transferring the real property relatively easy and free from delays. In addition, environmental studies are often not required when transferring title for easements for pipeline use. The fee owner remains the same, and property taxes are still paid by the fee owner, unless agreed to otherwise, and title reports are often not required, leaving disputed title issues in check. Much of the railroad owned property was acquired through easements under these circumstances, and some language in the easements require the railroad to continue utilizing the property for "railroad purposes." Does installing a new pipeline preserve the railroad's rights to continue utilizing the transportation corridor for "railroad purposes?" These questions have not yet been clearly answered by the courts.

Leases are much like easements, except they have time restraints and limitations.

Licenses are like leases, except they are most often used by governmental agencies and are typically utilized for short term periods of less than one year and are revocable, most often extended and easily renewed.

Scope of Assignment

To satisfy the scope of work for appraising pipeline easements, the following steps are required:

- Identify the larger parcel (contiguity, use, and ownership)
- Identify the taking area for the proposed pipeline easement, and identify placement and extent of the proposed pipeline with the aid of an engineering map
- Review the proposed pipeline easement agreement
- Identify the proposed impact on vertical division, bundle of rights and the highest and best use
- Apply the appropriate approaches to value
- Search for comparables
- Make appropriate adjustments
- Arrive at a final value opinion

“Advance research and preparation is the best way to ensure that the appraisal is supportive and reliable.”

Valuation of Pipeline as Part of Conforming Parcel

A conforming parcel is one where the site and all its improvements thereon meet or exceed zoning code requirements for residential, commercial, industrial or mixed use improvements. Furthermore, it has adequate size, access, necessary depth, functional shape, and overall functional utility.

In order to value a new pipeline within a conforming parcel, one must first value the larger parcel, then value the part taken as part of the whole by determining the value of the rights to be acquired. This is done by estimating the percentage of the fee value through analyzing the vertical division concept. Other ways of determining the value of the part taken is by estimating its value using paired data analysis, and finally by obtaining new studies and surveys.

Analyzing the value of each of the vertical divisions, including sub-surface rights, surface rights and air rights, is very useful in determining its value. In a high density area with high height limits, the value of the air rights may be worth more than the surface and sub-surface rights. In rural areas with low height limits for structures, the surface rights may be the most valuable part. In addition, there are multiple right occupancies as well. This is where the pipeline encumbers multiple divisions, including parts of two or three aspects of vertical rights, including sub-surface, surface and/or air rights.

Paired Data Analysis

Paired data analysis is a quantitative technique used to identify and measure adjustments that isolate a single characteristic's effect on value or rent.

For example:

- 1) A typical 6.5-acre parcel without any encumbrances recently sold for **\$50,000** per acre
- 2) Another 6.5-acre parcel with similar elements of comparison to the previous sale sold with a ½ acre underground pipeline for \$45,000 per acre

Calculation: $((\$45,000 / \$50,000) - 1) = -10\%$

Therefore, adjust comparables downward 10% to unencumbered comparable parcels since the subject is encumbered similarly.

Use Studies and Surveys

Interviewing buyers and sellers of property that is encumbered by pipelines could be helpful in determining the pipeline's impact on property value. Interviewing appraisers who are familiar with, and who often accept such assignments, is also a good source for market data. Reviewing published articles and books can provide significant insight and examining recent case studies concerning the valuation of pipelines or the sale of pipelines through testimonies, depositions or exhibits can often reveal a treasure chest of market data.

Another way of obtaining market data is by sending out letters to property owners whose sites are encumbered by pipelines, as they can confirm rents obtained from a pipeline encumbering their property, or recent sales of property used for pipelines. Other important sources of data can be found through public agencies, through the Freedom of Information Act concerning federal agencies, and the State Records Information Act for each specific state concerning local, county and state agencies. While the lower level public agency employees may not be fully aware of what's available to the public, their supervisors are usually familiar with public information acts.

Severance Damages

There are three specific reasons why severance damages may be appropriate when analyzing the remainder parcel. They include: 1) change in highest and best use; 2) increased cost or restrictions on existing uses; and 3) limits on future development or use.

Severance damages can be estimated by their estimated cost to cure. However, appraisers will want to ensure that the cost to cure is not added to the before and after analysis, as it may cause "double dipping," also known as double counting for damages.

In utilizing the State Rule, benefits offset damages. For example, better access to the subject site is possible along with superior physical characteristics to the remainder in the after condition

following the new construction. Likewise, superior utilities provided to the subject site in the after condition is common with pipeline improvements.

In estimating just compensation per State Rule, the following example may be useful.

Value of Whole Property: (5 acres @ \$50/sq. ft.)	\$10,890,000
Value of Part Taken: (1 acre easement @ \$50/sq. ft. x 40%)	\$871,200
Value of the Remainder as Part of the Whole: (10,890,000 less 871,200)	\$10,018,800
Value of the Remainder After the Take (5 acres) (encumbered with 1 acre) @ \$45/sq. ft.)	<u>\$2,801,000</u>
Damages	\$217,800
Benefits	<u>\$100,000</u>
Net Damages	\$117,800
Total Just Compensation	\$989,000

Valuation of a New Pipeline as Part of the Existing Corridor

As described previously, 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 benefit by connecting the end points and sometimes serving intermediate points along the way.

There are various methods that an appraiser uses to appraise corridors. The most common include the Across-the-Fence (ATF), Sales Comparison, Cost Approach, Net Liquidation Value and Going-Concern Value.

Since comparable sales of corridors are seldom available, the most common method is the ATF methodology, which is first found in the Interstate Commerce Commission (ICC) manual entitled "Instructions Pertaining To Land Appraisals" dated April 1, 1918.

The five steps to using the ATF method are as follows:

- 1. Define the value zone of the corridor based on zoning and uses of adjacent property**
- 2. Search for comparable land sales for each of the value zones**

3. Estimate the ATF unit value of each zone without considering the size, shape, access and terrain of the subject corridor

4. Multiply the area of the transportation corridor in each value zone by the ATF unit value

5. Add the ATF value for each value zone together to equal the total ATF value of the transportation corridor.

Standard Width for Pipeline Easement

As part of the appraisal process, I often include surveys of private companies and public agencies. The information I recently obtained from one survey is as follows:

Survey of Non-Exclusive Pipeline Easements

	Width of Easement Required	% of Fee Typically Paid
Gas Company	20 foot	25% - 50%
Transportation Agency	10 foot	25% - 50%
Railroad Company	10-12 foot	100%
Pipeline Company	5 foot	50% (30% for 10-foot)
County Sewer District	10 foot	25%

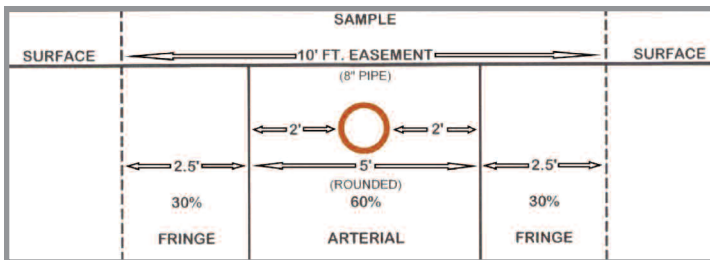
This survey shows that there is no acceptable standard width for a pipeline easement, as it is usually determined through negotiations. Still, it may be helpful to understand the railroad's thought process in setting their standard 10-foot wide widths for pipeline easements.

Initially, railroads arrived at the easement width by rounding up the diameter of the pipe to the nearest foot. Then they added two feet on both sides as a buffer to ensure the pipeline's integrity and security, knowing that no other pipeline company would be interested in placing their pipeline less than two feet from the existing one. As such, the total width of the pipeline, assuming a one-foot or less diameter pipeline, would be five feet (1 foot pipe + 2 feet on both sides = 5 feet).

Since then, the railroads have realized that pipeline users have been getting free access onto their corridors to service and maintain their pipelines. The railroads reasoned that since automobile lanes on public roads are typically 11 to 12-feet wide, and given the width of a standard truck, a 10 to 12-foot width requirement to access the pipeline would seem reasonable. It is also reasonable to assume that the additional width of the easement dedicated solely for access use only should be charged at a lower rate. I call these areas the "arterial zone" and the "fringe zone."

The arterial area is that area known as the buffer zone, whereas no other pipelines or occupancy will be permitted (i.e., 2 feet from both sides of the 8-inch pipeline = 5-foot wide arterial (rounded)).

The fringe area is that area of the easement located outside the arterial area and is less impacted by the pipeline. When alternative means of access for maintenance is available, a fringe area may not be required (i.e., 2.5 feet on both sides of the arterial (2.5 + 2.5 = 5 feet of fringe area)).



However, what happens when the real property for the pipeline runs along the public access road, where users of the pipeline can maintain the pipeline by utilizing the public roadway, rather than the railroad right of way? In this circumstance, the pipeline user will likely not be utilizing the corridor for access to the pipeline. Therefore, under these circumstances, consideration will be paid for the arterial area only.

Upon calculating the diminution of the percentage fee within an existing transportation corridor to the pipeline easement, and assuming that the encumbrance of the arterial impacts the fee rights by 60%, and the fringe impacts the fee rights by 30%, it is calculated as follows:

Arterial:	5' / 10' x 60%	30%
Fringe:	5' / 10' x 30%	15%
Total percentage of fee encumbered		45%

Final Estimate of ATF Value

Assuming the ATF unit value for the subject corridor is \$50 per square foot, and the pipeline encumbrance is 45% of the fee, and the easement area equals 10-foot wide and 100-foot long (totaling 1,000 square feet), the market value of the proposed pipeline easement is as follows:

1,000 sq. ft. x \$50/sq. ft. x 45% = \$22,500

Fair Market Rent

Having determined the market value of the proposed pipeline easement, there are only a few more steps required for estimating the fair market rent for a lease or license agreement. First, determining the market land rate is necessary. This market land rate is best extracted from the market using comparable sales. Given the confidential nature of this information, these land rates for pipelines and transportation corridors may not be available (and we would not use land rates that are incompatible in the highest and best use of the pipeline). So we may have to resort to surveying private companies and agencies.

Through some recent research, I found the following information:

Sample Land Rates Survey

Public Transportation Authority	8% - 10%
Railroad Company	13% (including property taxes)
Pipeline Company	10% - 12%
County Sewer District	8% - 10%

Through an in-depth analysis, an appraiser might arrive at a 10% land rate as reasonable. Using the before-mentioned assumptions, the fair market rent for the pipeline is as follows:

\$22,500 (market value of pipeline) x 10% (land rate) = \$2,250 (rent annually)

As a side note, a relocation clause in a contract typically allows the landowner to require the pipeline owner to relocate the line at any time and for any reason at the cost of the pipeline owner. This typically has no impact on the value of the pipeline. After interviewing numerous railroad, utility, and private pipeline companies, owners of corridors and underlying fee owners of pipelines, I found that they seldom exercise this right.

Another important note is that severance damages are seldom found for new pipelines in transportation corridors because owners of corridors do not let pipeline companies install their pipeline if it could diminish the value of the remaining portion of the corridor. Even in eminent domain, it is beneficial for both parties to work together to minimize damages.

Conclusion

Advance research and preparation is the best way to ensure that the appraisal is supportive and reliable. This entails adequate attention up front, including identifying partial interests, language in the easement agreement, conducting an in-depth search for the best comparable data available and a thorough analysis. On the contrary, if the scope of the assignment is not well defined and/or not followed properly, the analysis and conclusions will be misleading and unreliable. ●

ABC's of Real Estate Terminology for Appraising Pipelines

The following definitions are found in the Dictionary of Real Estate Appraisal, 4th edition:

Across-the Fence Method. A land valuation method typically used to estimate the value of real estate corridor, including railroad or pipeline rights-of-way, highways, or other corridor real estate. The price or value of land adjacent to the corridor ("across-the-fence") is considered for the valuation. Other considerations include Corridor Factor and Usage Factor adjustments.

Adjustments.

- a. Mathematical changes made to basic data to facilitate comparison or understanding. When dollar adjustments are used, individual differences between comparables and the subject property are expressed in terms of plus or minus dollar amounts; with percentage adjustments, individual differences are reflected in plus or minus percentage differentials.
- b. Items that should be prorated or apportioned between the purchaser and seller in real estate transactions; e.g., taxes, rents, fuel.

Air Rights. The right to undisturbed use and control of designated air space above a specified land area within stated elevations. Such rights may be acquired to construct a building above the land or building of another, or to protect the light and air of an existing or proposed structure of an adjoining lot.

Approaches to Value. Systematic procedures used to derive value indications in real property appraisal.

Bundle of Rights. The concept that compares property ownership to a bundle of sticks, with each stick representing a distinct and separate right of the property owner, e.g. the right to use real estate, to sell it, to lease it, to give it away, or to choose to exercise all or none of these rights.

Comparables. A shortened term for similar property sales, rentals, or operating expenses used for comparison in the valuation process.

Conformity. The appraisal principal that real property values created and sustained when the characteristics of a property conform to the demands of its market.

Cost Approach. A set of procedures through which a value indication is derived from the fee simple interest in a property by estimating the current cost to construct a reproduction of (or replacement for) the existing structure, including entrepreneurial incentive, deducting depreciation for the total cost, and adding the estimated land value. Adjustments may then be made to the indicated fee simple value of the subject property to reflect the value of the property interest being appraised.

Cost to Cure. The cost to restore an item of deferred maintenance to new or reasonably new condition.

Double Counting.

- a. In the process of estimating depreciation, accounting for a form of depreciation more than once in the calculations of double depreciation, and thereby over-estimating the impact of depreciation on real property value;
- b. In the sales comparison approach, failing to separate the influence of elements of comparison, and thereby making adjustments twice for the same influence.

Final Value Opinion. The range of values or single dollar figure derived from the reconciliation of value indications and stated in the appraisal report.

Functional Utility. The ability of a property or building to be useful and to perform the function for which it is intended, according to current market taste and standards; the efficiency of a building's use in terms of architectural style, design and layout, traffic patterns, and the size and type of rooms.

Going-Concern Value. Includes tangible and intangible elements of value in a business enterprise, resulting from factors such as having a trained workforce, an operational plant, and the necessary licenses, systems, and procedures in place.

Highest and Best Use. The reasonably probably and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

Larger Parcel. In condemnation, the tract or tracts of land that are under the beneficial control of a single individual or entity and have the same, or an integrated, highest and best use. Elements for consideration by the appraiser making determination in this regard are contiguity, or proximity, as it bears on the highest and best use of the property, unity of ownership, and unity of highest and best use.

Lease. A written contract in which the rights to use and occupy land or structures are transferred by the owner to another for a specified period of time in turn for a specified rent.

License. For real property, a personal, un-assignable, and typically revocable privilege or permit to perform some activity on the land of another without obtaining an interest in the property.

Liquidation Premise. One of the premises under which the total assets of a business (TAB) can be valued; the assumption that a company will cease operations. Under the liquidation premise, assets are valued as if sold piecemeal.

Paired Data Analysis. A quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties; to apply this technique, sales or rental data of nearly identical properties are analyzed to isolate a single characteristic's effect on value or rent.

Partial Interest. Divided or undivided rights in real estate that represent less than the whole.

Pipeline Easement. The right to construct, operate, and maintain a pipeline over the lands of others within prescribed geographical limits. The language of the easement determines the extent of the rights granted.

Sales Comparison Approach. A set of procedures in which a value indication is derived by comparing the property being appraised to similar properties that have been sold recently, then applying appropriate units of comparison and making adjustments to the sale prices of the comparables based on the elements of comparison. The sales comparison approach may be used to value improved properties, vacant land, or land being considered as though vacant; it is the most common and preferred method of land valuation when an adequate supply of comparable sales is available.

Scope of Work. The amount and type of information researched and the analysis applied to an assignment. The scope of work includes, but is not limited to, the following:

- The degree to which the property is inspected or identified;
- The extent of research into physical or economic factors that could affect the property;
- The extent of data researched; and
- The type and extent of analysis applied to arrive at opinions or conclusions.

Severance Damages. Generally used to mean those damages to a remainder property that are compensable.

State Rule. In condemnation, the process of determining just compensation by estimating the value of the portion to be acquired as part of the whole property plus the net severance damages.

Sub-surface Rights. (1) The rights to the use and profits of the underground portion of a designated property; usually refers to the right to extract coal, minerals, oil, gas, or other hydrocarbon substances, as designated in the grant; may include a right-of-way over designated portions of the surface. (2) The right to construct and maintain tunnels, subways, sub-cellars, pipelines, and sewers, etc.

Surface Easement. The right to use the surface of land only, e.g., for access, flowage, right of way; also called Surface Rights.

Taking.

- a. The acquisition of a parcel of land through condemnation.
- b. In land use law, application of police power restrictions to a parcel of land that is so restricted as to preclude any reasonable use.

Title. The combination of all elements that constitute proof of ownership.

Transportation Corridor. A long, narrow strip of land or real property rights for which the highest and best use is to provide an economic benefit by connecting the end points, and sometimes serving intermediate points along the way. Most corridors provide these connections for energy (oil and gas pipelines, electrical power transmission lines), transportation (road, rail, aqueducts, channels, navigation, aircraft over-flight), or communications (fiber-optic lines) purposes. Many corridors may or may not have a highest and best use of continued corridor use.

Vertical Division. The division of real property into air, ground (surface), and subterranean rights.