

Economic Rationale, Highest and Best Use, and Market Valuation Issues for Appraising Inextricably Intertwined Assets

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INTRODUCTION

Classifying Property Rights and Interests in the Valuation Process

WHEN SPECIAL PURPOSE PROPERTIES SUCH AS PIPELINES, bulk oil storage terminals, truck terminals, railroads, etc., are sold, these transactions *may* include going-concern (non-realty) items such as long-term contracts, an assembled workforce and even goodwill. Although these special purpose properties are relatively few in any individual market area, such a property can be investigated and researched just like any other income-producing asset. And, the special purpose property can be analyzed by an appraiser to determine the property's value through a properly conducted appraisal process which includes: defining a scope of work; conducting a site analysis; conducting a market analysis; developing a highest and best use (HBU) determination; developing valuation estimates from multiple approaches to value; reconciling the approaches to value and concluding a value estimate. This article will use bulk oil storage terminals as an example property, but the process can be applied to any special purpose property. A glossary of terms used in the article appears at the end.

SCOPE OF WORK

All real estate appraisers, when developing their scope of work for an appraisal assignment, must first identify whether any potential non-realty items exist in the transaction; and if any non-realty items do exist, the appraiser must determine how to account for and allocate any potential value to them. The process of identifying potential non-realty items is required by the

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Uniform Standards of Professional Appraisal Practice (USPAP).¹

This identification process is also mandated according to state regulatory agencies. For example, the *Wisconsin Property Assessment Manual* states:

The law requires that the assessor assess all property not exempt by law, which has any marketable value. To make an assessment the assessor must first identify the property and be able to distinguish it from other property. The assessor must understand the difference between real and

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personal property and be thoroughly familiar with the different classes of property.²

Wisconsin statutes are also clear on the issue of differentiating between real and personal property in the valuation process. Wisconsin Statutes (specifically s. 70.03 and s. 70.04) differentiate real property and personal property for assessment purposes. Section 70.03 defines real property as:

“Real property,” “real estate” and “land,” when used in chs. 70 to 76, 78 and 79, include not only the land itself but all buildings and improvements thereon, and all fixtures and rights and privileges appertaining thereto, except that for the purpose of time-share property, as defined in s. 707.02 (32), real property does not include recurrent exclusive use and occupancy on a periodic basis or other rights, including, but not limited to, membership rights, vacation services and club memberships.

Section 70.03 further explains:

Income that is attributable to land, rather than personal to the owner, is inextricably intertwined with the land and is transferable to future owners. This income may be included in the land’s assessment because it appertains to the land. Income from managing separate off-site property may be inextricably intertwined with land and subject to assessment if the income is generated primarily on the assessed property itself. ABKA Ltd. v. Fontana-On-Geneva-Lake, 231 Wis. 2d 328, 603 N.W.2d 217 (1999), 98-0851.

Section 70.04 defines personal property as:

The term ‘personal property,’ as used in chs. 70 to 79, shall include all goods, wares, merchandise, chattels, and effects, of any nature or description, having any real or marketable value, and not included in the term ‘real property,’ as defined in s. 70.03.

Most states have similar statutes relating to definitions of real versus personal property for property assessment purposes because economic and appraisal theories regarding the valuation of non-realty components included in special purpose property transactions range from “little to no value should be allocated to the non-realty components” to “nearly all of the value of the transaction is due to the non-realty components.” This division of real and personal property is also important for lenders in that the underlying collateral for the loan could be a mix of real and personal, tangible and intangible property. The correct economic answer to this question

must therefore be based solely on the allocable net income stream from each right (or obligation) in the property and whether that particular net income stream is dependent on the right’s (or obligation’s) current situs; and the correct economic answer will result in the proper allocation of assets for property tax purposes, for income tax purposes and for lending purposes.

SITE ANALYSIS: PROPERTY RIGHTS AND OBLIGATIONS AND THE ALLOCATION PROCESS

What is important regarding any asset valuation allocation process is for the appraiser to properly determine the net income stream associated with the specific property rights and obligations inextricably intertwined with the real estate that must be capitalized into the value of income producing real estate. For example, all income streams from property rights and obligations associated with and dependent upon a terminal must be located on sites permitted as terminalling operations. This is consistent with the findings in the Adams Outdoor Advertising case.³ Changing the word “billboard” to “terminal” and the phrase “billboard permits” to “terminal zoning rights or permits,” the Adams findings (paragraph 80) would read as:

The income attributable to the permit is properly included in the real property tax assessment, not the personal property tax assessment of the “terminal.” Any value attributable to the “terminal zoning rights or permits” is not inextricably intertwined with the structure of the “terminal.” The primary value of the “terminal zoning rights or permits” is unrelated to the structures; rather, the primary value of the “terminal zoning rights or permits” appertains to the location of the underlying real estate.

As such, all rights and permits are part of the land under the structure (the rights and permits are inextricably intertwined with the land). A property without terminal zoning rights or permits to operate as a pipeline or terminal cannot generate income as either a pipeline or a terminal—regardless of the proximity to a property that has such rights. Proximity to parcels with unique rights and permits is not sufficient evidence to assert proximate parcels have the same rights and permits as other parcels and are therefore comparable properties in the appraisal process. It is also insufficient to summarily assume that a comparable site can be permitted as a pipeline or terminal regardless of whether zoning allows for such a use because not all sites in a zone allowing pipelines and terminals will be permitted to operate as such. In fact, given

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the limited quantity of terminal facilities (or railways, pipelines, billboards, etc.) in any one marketplace, these properties act as an oligopoly in their markets, with very few competitors supplying the entire marketplace a relatively homogeneous product at a price structure that keeps competitors from entering the market. Therefore, in determining comparability, the price of a permit cannot simply be added to the cost of the unpermitted land—one must first determine whether a permit or right will be granted. Without the possibility of gaining the necessary permit or right, there is no comparability to consider between the parcels.

If a site is zoned and *permitted* (or is likely to be permitted) to operate as a terminal, the limiting condition affecting the value of the permitted site will then be the physical proximity and interdependence of the terminal real estate to the pipeline real estate (i.e., the linkage) that exists as a value-generating privilege appertaining to both properties. The strength of the linkage between the pipeline and the terminal is what determines whether a potential change in value exists for either or both as operating real estate assets; and it is not the owner's business skill and acumen that creates value.⁴

Therefore, permitted uses of a site are inextricably intertwined to the site and are not related to management skill, and these permitted uses are appurtenant intangible real property rights that yield incremental value for the property and must be included in the appraiser's valuation of the real property rights associated with the ownership of the physical real estate. As such, they are not intangible, independent personal property assets with their own marketability. Furthermore, these specific appurtenant permitted uses do not have independent market values since they are inextricably intertwined with the land and the improvements permanently attached thereto.

MARKET ANALYSIS: SPECIAL PURPOSE PROPERTIES—COMBINED REALTY AND NON-REALTY ITEMS

Special purpose property transactions can potentially include non-realty items in the transaction agreement. Obvious situations include the transfer of real estate along with tools, vehicles and other tangible personal property—assets that are not integral, functioning parts of the real estate and can be separated and transferred as individual assets with individual, marketable values. Other situations might include less obvious and clear delineations between realty and non-realty assets and the distinction as to

whether the assets can be severed, marketed and sold (transferred) as individual, separable assets. An example of such a situation is the distinction between excess land and surplus land. Excess land can be separated from an existing parcel and sold into the competitive marketplace because the land has its own individual highest and best use. Surplus land cannot be separated and marketed as a unique parcel and does not have its own highest and best use.

Transferability of enforceable rights in a competitive marketplace is the primary basis that determines whether property rights can have an independent value in the marketplace. Vehicles, tools and other tangible personal property that are not functioning parts of the real estate can be sold and transferred to other locations, and the tangible personal property is valuable to the receiving party. It is also possible for intangible personal property rights to be severed and sold or exchanged separately from the real estate, just as intangible real property rights (e.g., transferable development rights) can potentially be severed and sold independently of the underlying real estate. This is consistent with the findings of the 1994 Waste Management Case in Wisconsin,⁵ and it is of great importance to lenders who would otherwise require separate loans for business and intangible components and for tangible personal property. It is also an important consideration for income tax purposes as personal property depreciation schedules and intangible asset amortization schedules are not the same as real property depreciation schedules.⁶

It is when intangible rights cannot be severed from the balance of the rights and obligations appurtenant to tangible real estate that they become recognized as “inextricably intertwined” with the real estate since they cannot be separated and sold apart from the real estate. Expanding on the concept of potentially severing assets and rights, even though future owners of the real estate do not use and exploit these inextricably intertwined property rights, the rights remain with the real estate and have value because the right did not remain with the seller nor did the right dissipate upon sale of the property. The income contributions from these inextricably intertwined rights are expected to continue to flow to any future owner and contribute to the value of the real estate under ownership. This is consistent with the findings in the 1999 ABKA case in Wisconsin.⁷

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MARKET ANALYSIS: LEGAL ENFORCEMENT AND ECONOMIC VALUE

“Under it all is the land.” Although this is the first sentence in the preamble of the National Association of REALTORS® code of ethics, the concept applies to all disciplines that study real estate. The first issue that everyone studying real estate markets must understand is that land has no value without legally enforceable property rights attached to the land (e.g., “permanent” real property rights). In particular the right to convey any or all of the rights to land (including the rights to appurtenances to land) is necessary before economic real estate transaction markets can exist. Once transferable and enforceable property rights are attached to land, land can have value—but the actual value will be determined by the economic marketplace where the property is physically located.

Enforceability and transferability are essential concepts to understand because to properly value real estate, an appraiser must be able to determine the transferability of rights, privileges and obligations that are commensurate with the ownership of land. Any enforceable right, privilege or obligation that is legally and permanently attached to the land is a property right that “runs with the land.” All rights that run with the land individually and collectively affect the value of that particular parcel of real estate because the individual rights raise or lower the value of the land relative to other parcels.⁸ These same economic market forces exist for adding or removing “permanent” appurtenances to land (e.g., changes in zoning or density).

If a right from one parcel can be transferred to another parcel, then there exists potential for a change in value for both the sending parcel and the receiving parcel. It must be noted that any change in value due to the transferred right may be—but does not have to be—the same value amount for both the sending parcel and the receiving parcel. For example, if development rights (intangible real property rights) can be transferred from one parcel to another, the value change of the sending parcel may be relatively small, assuming the development rights on the sending parcel could not easily be exploited by land-owners or the cost to develop the parcel was excessive. Those same development rights that subsequently become part of the receiving parcel could create a significantly large and positive value gain for the receiving parcel. This is an example of an asymmetric value exchange.

What this simple example of an asymmetric value exchange of transferable development rights shows is that the owner of the receiving parcel would be willing to pay an amount for the development rights that actually exceed the value reduction of the sending parcel. This exchange in development rights will most often yield a positive net benefit to the owner of the sending parcel (value loss to the property is less than the price received for transferring the rights), and the owner of the receiving parcel also will yield a positive net benefit in that the value increase to the receiving parcel is greater than the price paid for the transferred rights. What makes this entire process of transferring rights possible is the ability for one parcel (the sending parcel) to sever and send certain rights for a profit, and for another parcel (the receiving parcel) to obtain and attach those same rights for a profit—a win-win for both parties to the transaction. At the same time, it must be recognized that for the rights to be economically transferred, economic trading markets for the transferred rights must exist.

From an appraisal perspective, the appraiser must first be able to ascertain whether a particular right transfer is portable into the future or if it became permanently attached to the receiving parcel. If the right transfer maintains its portable nature, the right is personal property; otherwise the right becomes appurtenant to the receiving parcel and is now an intangible real property right of that parcel. The second step in the appraisal process is for the appraiser to estimate the value of the property. In the first case where the right transfer maintains its portability, the appraiser will estimate a personal property value. In the latter case where the right becomes permanently attached, the real property value of the receiving parcel includes the newly received, appurtenant right. In either case, the appraiser must conduct a new market analysis for the property being appraised, including a new HBU analysis for the property after the property right has been transferred.

In the case of a petroleum terminal operation, the particular rights, privileges and physical improvements that are permanently attached to the land are part of the real property being appraised. Any asset or right that has its own HBU (and by default, its own marketability) apart from other parcels is a separate asset and must be valued as an individual asset, either as real property or as personal property.

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HIGHEST AND BEST USE OF THE SITE

As the term suggests, HBU is the singular use of the property (including all physical components and legal attributes of the site) that yields the greatest value to the property in a market value context. This is not the same as defining what the greatest value of the property would be to any individual owner of that property—that would be a particular value from an investment value context. For a property to be considered in its HBU, it must meet three specific criteria: it must be legally permissible; it must be physically possible; and it must be financially feasible. The HBU exercise can result in many potential configurations for a particular site, but the final step, finding the one use that achieves maximum value, is singular—there is only one HBU of an improved property.

For all potential configurations of assets on the site that meet the first three criteria, the one configuration that yields the greatest net value to the site is considered the use that is highest and best. Most appraisers begin with determining either the legally permissible (usual case) or physically possible consideration. Once uses of the site have met those criteria, the financially feasible consideration is analyzed. It is at this point where economic and market data and information are analyzed to find that use, from those that met the legal and physical constraints, which yields the best financial possibility in the marketplace.

It is in the market and economic analysis where an appraiser will determine the individual component asset configuration combinations that will generate the greatest positive financial return to the site. It is also in this step of the HBU process where an appraiser must be able to identify and properly place individual component assets into their respective classes—tangible and intangible, real and personal. This matrix results in four potential categories of property:

Figure 1

		Real	Personal
Tangible	Real Tangible	Personal Tangible	
Intangible	Real Intangible	Personal Intangible	

Source: Thomas W. Hamilton, Ph.D., CRE

APPROACHES TO VALUE

The cost approach to value will be difficult for an appraiser to properly apply in the case of terminalling

facilities, especially in obtaining reliable land values for the approach. Since the legal permissibility of a bulk oil terminal is site specific (because of permits and/or rights applicable to that land parcel), and since the time, risk and cost to obtain such a permit are difficult to directly estimate, the appraiser will either misapply adjacent industrial land as a directly comparable property (misidentified because of a lack of intangible real property rights to site an oil terminal), or the appraiser will misallocate improvement value from comparable, existing bulk oil terminals in an extraction method. Without a reliable market value of a “bulk oil terminal site,” the balance of the cost approach will result in a value estimate that is typically much lower than its real market value. Also, unless the improvements to an existing oil terminal facility are very new, estimating depreciation is a difficult task given the varying economic lives of the numerous component structures in a bulk oil terminal facility. Taken together, the cost approach for highly regulated, permitted facilities is going to yield questionable results unless significant time is taken to ensure that the value of the land is correct and a comprehensive depreciation study for the numerous different asset classes comprising the facility is undertaken.

The income approach to value can be a valid measure for estimating the market value of a bulk oil terminal. Since there is an active marketplace for the sale and purchase of existing facilities, there is sufficient data in most markets to derive market value estimates, even though each facility is fairly unique in age, quality, condition, throughput and capacity. A proper adjustment grid model can be developed to estimate a market-derived net operating income (or income stream) that can be capitalized (discounted) into a market value estimate for the subject property. The appraiser must be aware of all income sources attributed to the facility and then properly allocate only that income which is attributed to the inextricably intertwined system of real property assets. This requires the appraiser to fully recognize all income that cannot be attributed to real property and allocate that income to the non-realty components—if any exist. Simple rules, or heuristics, can be used for the small amount of workforce and tangible personal property assets at the facility (such as three percent), but allocating income to intangible personal property will require the completion of a separate market analysis of those intangible personal property assets to determine whether a competitive marketplace exists whereby the intangible personal property assets

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have a separate market value (exchange value). Without such evidence of a separate intangible personal property market, there is no justification for allocating income to anything else other than intangible real property.

Another issue with the income approach pertains to the development of capitalization rates and discount rates. For property tax purposes, it is imperative that the appraiser develop rates that properly and adequately reflect the income stream being capitalized or discounted. Since for property tax purposes there is no property tax expense allowed in determining net operating income (before income taxes), the capitalization (or discount) rate must be adjusted to account for this “missing” expense. This is usually accomplished by adding the effective before-tax property tax rate to a market-derived capitalization rate that was based on comparable properties but after property taxes were subtracted from net operating income. If, however, the capitalization (or discount) rate was calculated by a build-up method (band of investment; weighted average cost of capital; or weighted average rate of return), there not only will need to be an adjustment for property taxes, but also for depreciation and amortization allocations. Since depreciation and allocation are non-cash expenses, the before-tax equivalent expense rate must be *subtracted* from the capitalization (discount) rate. The reason for subtracting the depreciation and allocation expense rate from the build-up rate is that since these are non-cash expenses, they effectively raise the rate of return to investors. Since the appraisal process does not use depreciation or amortization expenses in the development of net operating income, if one does not adjust the capitalization (or discount) rate accordingly, the appraiser is misapplying the capitalization function (discount process).

The market approach to value possibly can be applied to a bulk oil terminal provided that sufficient sales of similar properties exist in the marketplace. However, much like other industrial properties, these facilities are very heterogeneous and the adjustment process will be quite difficult to accomplish without significant assumptions regarding age, quality, condition, throughput and capacity or without having to obtain comparables from other markets that will add additional complexity to supply and demand differentials in the various property markets. A stock and debt approach could be applied as an indicator of the market approach to value, provided sufficient market information is available for “standalone” bulk oil terminal facilities—however, most are owned as part of a

portfolio of terminal facilities on a parent firm’s balance sheet. This would make allocation from within the parent firm’s balance sheet difficult to partition.

Another option, should the property have sold in the recent past, is to use the sale price of the subject as an indicator of its market value—after making any necessary adjustments for condition of sale and date of sale. Some jurisdictions allow the most recent sale of the subject to be used as an indicator of market value. The State of Wisconsin actually requires this to be the *de facto* estimate of market value for property tax purposes unless there is sufficient market evidence from the recent sales of comparable properties to contradict the most recent sale of the subject. In a sophisticated, transparent marketplace, the most recent sale should be the best indicator of the property’s market value *unless* some issue that can be attributed to the condition of sale can be identified.

RECONCILIATION AND CONCLUSION OF VALUE

The issue with reconciling special purpose properties, such as bulk oil terminal facilities, is no different than any other appraisal assignment. The approaches that yield the most reliable results should be given the greatest weight in the final reconciliation. Given the strengths and shortcomings of the various approaches, it would appear that in most cases the income approach to value should yield the greatest reliability as an estimate of market value. However, as in the case of properties sold in Wisconsin, recent sales of the subject are deemed to be the best indicator of market value for property tax purposes unless market evidence to the contrary can be proven to exist.

SUMMARY AND CONCLUSION

This article develops a reasonable approach to construct an economic valuation framework that results in a proper identification of the HBU of the property and the proper allocation of individual real and personal, tangible and intangible assets that can be applied in general valuation assignments and in property tax-based valuation assignments. This article also creates a framework for properly identifying property ownership rights and the values associated with those rights from the perspective of whether those rights are inextricably intertwined with the property. Without properly recognizing and then incorporating the relevant economic, financial and market considerations that affect the financial feasibility in the HBU process or the rights appurtenant to the property, an appraisal assignment is merely one’s opinion of a number, and not necessarily an opinion of the market

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value of the property being appraised. In essence, a proper economic valuation framework and HBU analysis begins with a complete market analysis process and ends with a real estate appraisal report resulting from an accurate

depiction of the value derived from the rights and obligations associated with tangible and intangible assets that are inextricably intertwined with the land. ■

Figure 2
Glossary of Terms

<i>Figure 2</i> Glossary of Terms	
appurtenant	Related to, or belonging to, another.
appurtenant intangible real property right	Any property right or restriction that belongs to real estate. Some appurtenant intangible real property rights can potentially be transferred to other real estate, while those rights that are classified as site permits are immobile and cannot be transferred (inextricably intertwined).
effective before-tax property tax rate	The annual property taxes owed for a property divided by the market value of the property, stated as a percentage. If a \$100,000 property (market value) owes \$1,250 per year in property taxes, the effective before-tax property tax rate is 1.25% (1,250 divided by 100,000 = 0.0125 = 1.25%).
going-concern	The condition whereby an entity (e.g., a company) has sufficient resources to continue to operate indefinitely.
going-concern value	The value of a company that has sufficient resources to continue to operate indefinitely.
inextricably intertwined	To become joined together and incapable of being disentangled.
intertwined assets	Multiple, individual assets that function as a new, single asset. An example is when individual bricks are mortared together to create a brick wall.
pipeline	A conduit through which products are transported.
special purpose property	A property with a unique physical design, special construction materials, or a layout that restricts its utility to the use for which it was built without a large capital investment.
terminal	A facility connecting two or more distribution channels.
terminal zoning	The potentially legal use of land for a facility connecting two or more distribution channels. The legal use is possible, but not certain.
terminalling operations	A business establishment that operates a facility connecting two or more distribution channels.
terminalling permit	The certain and legal use of land for a facility connecting two or more distribution channels.
Source: Thomas W. Hamilton, Ph.D., CRE	

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ENDNOTES

1. See Standards Rule 1-2(e) (iii), Standards Rule 1-4(g) and Guide Note 5.
2. *Wisconsin Property Assessment Manual*, page 1.1.
3. *Adams Outdoor Advertising, Ltd. v. City of Madison*, 2006 WI 104, 294 Wis. 2d 441, 717 N.W.2d 803, 05-0508.
4. *Ibid.*, paragraph 83.
5. *Waste Management v. Kenosha County Board of Review*, 184 Wis.2d at 565 (Wis. 1994).
6. See Internal Revenue Code (IRC) Section 1245 Property, IRC Section 197 Intangibles, and IRC Section 1250 Property.
7. *ABKA Ltd. Partnership vs. Board of Review of Village of Fontana-On-Geneva Lake* 231 Wis.2d 328 (Wis. 1999) at paragraphs 15 and 26.
8. This is not always a completely additive process. The particular combination of rights creates a separate value in and of itself due to the specific portfolio of rights that can synergistically raise or lower the overall, marginal value of the parcel due to the particular combination of individual rights in the portfolio. This is the same effect seen in a portfolio of uncorrelated stocks where the portfolio return has a greater risk-adjusted return than the sum of the individual stocks in that portfolio.

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