

**HOW PROPERTY IS APPRAISED:
A PRACTICAL GUIDE FOR THE PROPERTY OWNER**

Developed by the Grimes Central Appraisal District

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INTRODUCTION

The Grimes Central Appraisal District has produced this document to generally explain, in practical terms, how property is appraised. It introduces some of the fundamental appraisal concepts, summarizes the approaches to value, and describes the methodology the appraisal district uses in valuing the major categories of property. Issues concerning the mass appraisal of property under current law and standards of practice can be somewhat complex and detailed. This document is intended to serve only as a general guide for the property owner and it is not intended to comprehensively address all technical aspects of the appraisal process. Property owners are encouraged to contact appraisal district staff members regarding any questions concerning the appraisal of their property.

APPRAISALS GENERALLY

Appraisal districts are governed by state law set forth in the Texas Property Tax Code.

One of the fundamental requirements of the law is that all taxable property is appraised at its market value as of January 1st. Market value is basically the price at which a property would sell in an arms-length transaction between a willing buyer and a willing seller. The status of the property on January 1st is the basis that is used for the entire year even if there are changes in the characteristics of the property during the year.

Appraisals for property tax purposes must show separate values for land and improvements. When the term “improvements” appears on appraisal district records it means buildings or structures.

The market value of property must be determined by the application of generally accepted appraisal methods and techniques as defined by law. Similar methods and techniques must be used on similar kinds of property. However, individual characteristics that affect a property’s value must be taken into account.

APPROACHES TO VALUE

The common approaches to value are (1) the sales comparison approach (2) the cost approach and (3) the income approach.

(1) SALES COMPARISON APPROACH

In the sales comparison approach, a market value is developed by comparing properties similar to the subject property that have recently sold and then adjusting the comparable sales to resemble the subject property. Sometimes it is necessary to adjust a sales price for changes in the market that may have occurred from the date of sale to the January 1st assessment date. Comparable sales may also have to be adjusted for differences in locations and property characteristics.

The appraisal district collects, verifies, analyzes and adjusts sales prices for use in the sales comparison approach. Not all sales meet the criteria of an arm’s length transaction and are not used by the appraisal district. For example, sales between related parties or sales occurring in distress situations are excluded.

The appraisal district relies most strongly on the sales that are considered to be typical. For example, if there are 10 sales of similar properties within a neighborhood ranging from \$100,000 to \$110,000 and one sale for \$70,000 and another for \$135,000, the appraisal district will rely more on the sales in the typical range of \$100,00 to \$110,000 than on the outlier sales.

(2) COST APPROACH

The cost approach is based on the principle that an informed buyer will pay no more for an improved property than the price of acquiring a vacant site and constructing a substitute building of equal utility, with the appropriate amount of depreciation deducted.

The following steps are used in the cost approach:

- (1) Estimate the value of the land as if vacant;
- (2) Estimate the replacement cost new (RCN) of the improvements (buildings);
- (3) Estimate the loss in value from all forms of depreciation;
- (4) Deduct the accrued depreciation from the replacement cost new (RCN); and
- (5) Add the land value to the depreciated improvement value to arrive at a total property value.

Replacement cost new (RCN) is defined as all costs and overhead that would be incurred in constructing an improvement having the same utility and desirability as the original, but using current building materials and techniques. RCN is generally expressed in terms of cost per square foot.

Depreciation may occur in three different forms: physical deterioration, functional obsolescence and economic obsolescence.

Physical deterioration is a loss in value due to wear and tear from normal use. For example, physical deterioration would occur in a building with an old roof that leaks. The appraisal district measures physical deterioration in an item called percent good. A relatively new building in excellent condition may be 95% good where an older, poorly maintained building may be 55% good.

Functional obsolescence is a loss in value due to an inadequacy or superadequacy in an improvement. For example, a five-bedroom residence with 4,500 square feet and only one bathroom would experience some functional obsolescence due to an inadequate number of bathrooms.

Economic obsolescence refers to a loss in value due to factors that are external to the property. For example, a new mansion built in the middle of a neighborhood composed primarily of small older homes that are poorly maintained would have some economic obsolescence.

Most buildings do not experience any functional or economic obsolescence, but when they do the depreciation is expressed on a percentage basis.

(3) INCOME APPROACH

In the income approach, the estimated future net income of a property is capitalized to convert the stream of future income into a present value. The gross income is estimated and the

operating expenses are deducted to arrive at a net income. The net income is then converted into a value by applying a capitalization rate. For example, an office building that generates \$35,000 a year in net income capitalized at 10% would have a value of \$350,000 ($\$35,000 / .10$). The income approach is used on a limited number of properties such as motels, office buildings, and apartments.

MASS APPRAISAL GENERALLY

The appraisal district uses the same concepts as an independent fee appraiser but has to perform appraisals on a mass basis. While an independent fee appraiser may be given an assignment to appraise an individual property, the appraisal district is called upon to value all of the properties in the county. Therefore, the appraisal district calculates the value of a large number of properties thru models that classify properties into categories and apply factors affecting value in a standardized manner so that properties with similar characteristics will have similar values.. The following sections explain the mass appraisal methodology that is employed for the major property categories.

LAND

The sales comparison approach is used to value land.

Rural acreage tracts are classified into different market areas based primarily on location. For example, land in the southern part of the county has historically sold at higher land than land in the north part of the county.

Within each area, properties are also categorized by acreage size. Generally, the market indicates that the per acre sales price for relatively smaller properties is higher than for larger acreage properties. For example, a 10 acre tract may sell for \$15,000 per acre and a 100 acre tract may sell for \$10,000 per acre.

The appraisal district determines acreage size for property based on what is called an effective acreage. If an owner has a tract of 10 acres and an adjacent tract of 95 acres, the properties may be listed separately but the property has an effective acreage of 105 acres and is appraised upon that basis.

An analysis of comparable sales is conducted and a series of schedules are developed where values are expressed on a per acre basis and applied to properties on a mass basis. Values may be modified for access, shape, topography or other characteristics that affect value.

Subdivision acreage tracts are classified by neighborhood and acreage size. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a per acre basis and may be further modified for shape, topography, or other factors.

Lots are classified by neighborhood and front footage or square footage. Values for these properties are expressed on a front foot basis, square foot basis or per lot basis. Land values may be further modified on the basis of shape, size, topography, and other factors.

SINGLE-FAMILY RESIDENTIAL

The appraisal district uses a hybrid sales comparison/ cost approach to appraise single-family residential properties.

The value for the land component is determined by using the methodology as described in the early mentioned section on land values.

The residential improvements are grouped into classifications based on construction type, quality of construction and square footage. An appropriate per square foot RCN schedule is developed for each classification and applied on a mass basis. For example, a good quality brick home residence will generally have a higher RCN than a fair quality frame house. Different RCNs are developed for different components of the structure such as living areas, garages and porches. Additives that are not normally included in the base RCN such as fireplaces or additional bathrooms are also recognized. Adjustments may be made to the RCN to reflect characteristics that are not reflected in the base schedule.

Depreciation schedules are developed to reflect depreciation typically experienced by a structure of a certain age and applied on a mass basis. Additionally, scheduled depreciation may be adjusted to account for properties where depreciation has occurred at a rate lesser than or greater than what is considered to be typical.

The land value and depreciated improvement value are added together to arrive at the total appraised value of the property.

Market area adjustments may be made to account for market area influences that occur in a specific area but are not otherwise indicated in the cost approach as it is applied at large. For example, the appraisal district's cost approach may indicate a typical value of \$150,000 for properties in a certain area, but the market indicates that the properties are selling at \$175,000 due to a premium location. In that case, an upward market area adjustment factor is applied to properties only in that area. On the other hand, the appraisal district's cost approach may indicate a typical value of \$150,000 for properties in a certain area, but the market indicates that the properties are selling at \$125,000 due to an inferior location. In that case, a downward market area adjustment factor is applied to properties in that area.

MOBILE HOMES

The appraisal district uses a hybrid sales comparison/ cost approach to appraise mobile homes properties.

The value for the land component is determined by using the methodology as described in the early mentioned section on land values.

Mobile homes are classified by quality of construction and size. An appropriate per square foot RCN schedule is developed for each classification and applied on a mass basis. For example, a good quality mobile home will have a higher RCN than a fair quality mobile home. Adjustments may be made to the RCN to reflect characteristics that are not reflected in the base schedule.

Depreciation schedules are developed to reflect depreciation typically experienced by a mobile home of a certain age and applied on a mass basis. Additionally, scheduled depreciation may be adjusted to account for properties where depreciation has occurred at a rate lesser than

or greater than what is considered to be typical.

The land value and depreciated improvement value are added together to arrive at the total appraised value of the property.

Market area adjustments, as described above, may be made to account for market area influences that occur in a specific area but are not otherwise indicated in the cost approach as it is applied at large.

COMMERCIAL

Commercial properties are generally appraised using the hybrid sales comparison/ cost approach with a secondary use of the income approach.

The value for the land component is determined by using the methodology as described in the early mentioned section on land values.

For commercial properties, improvements are classified by the following: (1) Use types for which they were designed such as office and retail. (2) Construction types which refer particularly to the materials used in the exterior walls and frame. (3) Quality of construction. An appropriate per square foot RCN schedule is developed for each classification and applied on a mass basis. Adjustments may be made to the RCN to reflect characteristics that are not reflected in the base schedule.

Depreciation for commercial properties is based on an age-life method of depreciation that uses effective age and economic life. Economic life is the period of time over which a structure contributes to property value. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

The land value and depreciated improvement value are added together to arrive at the total appraised value of the property.

Market area adjustments, as described above, may be made to account for market area influences that occur in a specific area but are not otherwise indicated in the cost approach as it is applied at large.

The income approach is used on some commercial properties such as a min-storage warehouses, motels and multi -tenant office buildings.

In this approach, rents, expenses and vacancy rates are obtained from a market analysis.

Allowable expenses occur in three categories: fixed expenses, variable expenses and replacement allowances. An example of a fixed expense is hazard insurance. Examples of variable expenses are utilities and janitorial services. Replacement allowance provide for the replacement of building components that wear out more rapidly than the building itself and must be replaced periodically during the buildings useful life such as heating and cooling systems.

A gross income is estimated and expenses are deducted to arrive at a net income.

A capitalization rate reflecting a satisfactory rate of return for the investor is used to convert

the net income into value. For example, a property with a net income of \$35,000 and a 10.00 % capitalization rate ($\$35,000 / .10$) would have a value of \$350,000.

MISCELLANEOUS RURAL IMPROVEMENTS

The hybrid sales comparison/ cost approach is used to appraise miscellaneous rural improvement properties.

The value for the land component is determined by using the methodology as described in the early mentioned section on land values.

For miscellaneous rural improvements, use type, quality of construction and size are considered. An appropriate per square foot RCN is applied. Depreciation is applied to reflect depreciation typically experienced by a building of a certain age. Additionally, scheduled depreciation may be adjusted to account for properties where depreciation has occurred at a rate lesser than or greater than what is considered to be typical.

The land value and depreciated improvement value are added together to arrive at the total appraised value of the property.

Market area adjustments, as described above, may be made to account for market area influences that occur in a specific area but are not otherwise indicated in the cost approach as it is applied at large.

BUSINESS PERSONAL PROPERTY

The cost approach is used to appraise business personal property.

Business personal property is generally classified by use types to identify businesses having common attributes such as convenience stores, auto parts stores, etc. Then the property is grouped into two principal categories: (1) furniture, fixtures and equipment (FFE) and (2) inventory. Other categories may include leased equipment, supplies, consigned goods, and vehicles.

Business personal property is valued at its current level of trade. The valuation of business personal property recognizes three distinct levels of trade: manufacturing, wholesale and resale. Incremental costs are added to a product as it advances from one level of trade to the next, increasing its value along the way.

The RCN for FF&E is generally developed from information that the property owner furnishes to the district or other generally accepted sources of cost data.

A table establishes a schedule of economic lives for assets that can be applied against a specific asset or a category of FFE such as convenience store or fast food. The appropriate economic life and age of the asset are selected and the depreciation is applied accordingly.

Inventory values are based on information the property owner reports in a rendition or other data reported for similar businesses. The market of inventory is the price for which it would sell as a unit to a purchaser who would continue the business.

Vehicle values are based on values provided by a vendor and property owner rendition

information.

AGRICULTURAL USE APPRAISAL

Agricultural lands that meets certain use requirements set forth by state law and appraisal district guidelines are valued according to their productivity value rather than their market value. The productivity values are determined by use of a statutory formula that results in values that are lower than market values.

Land is classified into categories such as native pasture and improved pasture. The categories may be further divided based on factors that influence the productive capacity of the category.

For each category, a net-to-land income is calculated based on typical cash leases and expenses, expressed on a per acre basis, over a five-year period. The cash leases are the amounts paid for grazing rights and the expenses include landowner expenses such as property taxes and fencing. The net-to-land income is divided by a statutory capitalization rate to arrive at a value.

For example, a category of land with a cash lease rate of \$15.00 and expenses of \$6.00 would have a net to land income of \$9.00. The \$9.00 net to land income divided by a 10.00% capitalization rate would result in a value of \$90 per acre.

TIMBER USE APPRAISAL

Timberlands that meets certain use requirements set forth by state law and appraisal district guidelines are valued according to their productivity value rather than their market value. The productivity values are determined by use of a statutory formula that results in values that are lower than market values.

Land is classified into categories based on forest type and soil class. Forest types include pine, hardwood and mixed. Soils are classified by productivity in classes 1 thru 4.

For each category a net to land income is calculated based on potential average annual growth rates, prices, and management expenses, expressed on a per acre basis, over a five-year period. (Growth rates, prices, and management costs are based on information provided by sources such as the Texas Forest Service.) The growth rates multiplied by the appropriate unit prices produce a gross income. The management costs are deducted from the gross income to arrive at the net to land income. The net-to-land income is divided by a statutory capitalization rate to arrive at a value.

For example, a category with a net to land income of \$50.00 and expenses of \$35.00 would have a net income of land of \$15.00. The \$150.00 net to land income divided by a 7.75 % capitalization rate would result in a value of \$193.00 per acre.

The timber value refers to the land's potential to produce timber and not to the value of the standing timber that exists on the property at a specific time.

OIL AND GAS ROYALTY INTERESTS

The market value of a royalty interest is based on the property's ability to produce future income over the life of the property and does not represent just the income received in the prior year or any one-year period.

The appraisal of mineral interests is based on an income approach to value that estimates the future net income that will be generated during the life of the well and then discounts that income stream to present value.

The forecast of future net income depends on the amount of future oil and gas production; future oil and gas prices; and future operating expenses. Projections of the amounts of future oil and gas production are determined primarily by analyzing historical production. Future prices are established according to a statutory formula that utilizes average prices for the preceding year and a price adjustment factor. Royalty owners do not pay for operating expenses; however, the value of a royalty interest is affected by how long a well remains profitable to the operator of the well.

The discount rate that converts estimated future net income into a present value takes into account the fact that a sum of money to be received in the future is not as valuable as the same sum of money that may be received today. Also, since many types of risk exist in the oil and gas business which create the possibility that the future income will not materialize as projected, the discount rate must also account for expected risk.

For each year that the well is expected to produce, the production multiplied by the price generates a net income. The discount rate is applied to the net income to produce a discounted net income. The discounted net incomes for each year are added together to arrive at the market value of the royalty interest.