Rockwall CAD

Basics of

Appraising Property

For

Property Taxation

ROCKWALL CENTRAL APPRAISAL DISTRICT
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Introduction

Rockwall Central Appraisal District is responsible for the appraisal of all Real property and tangible business personal property within Rockwall County for Ad Valorem taxation. The district appraises property for 16 taxing entities located within Rockwall County including:

City of Fate	City of Rowlett
City of Heath	Rockwall County
City of Royse City	Verandah MUD
City of Rockwall	Rockwall ISD
City of McLendon-Chisholm	Royse City ISD
City of Wylie	Rockwall County MUD #1
City of Garland	Rockwall County MUD #6
City of Dallas	Rockwall County MUD #8

Below is a brief summary of how Rockwall Central Appraisal District appraises property.

Mass Appraisal

In appraising property for Ad Valorem taxation, the appraisal district utilizes a method called mass appraisal to calculate the value of a large number of properties. Mass appraisal is the process of valuing a group of properties as of a given date using common data, standardized methods and statistical testing. In mass appraisal, values for individual parcels should not be based solely on the sale price of a property; rather, valuation schedules and models should be consistently applied to property data that is correct, complete and up-to-date.

Market Value

In the State of Texas, the appraisal date for property tax purposes is January 1st of each given year. Property must be appraised at its fair market value as of January 1st. The property tax code defines market value as:

The price at which property would transfer for cash or its equivalent under prevailing market conditions if:

a) Exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
b) Both the seller and the purchaser know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use; and
c) Both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Highest and Best Use

In order to determine the market value of property, the appraiser must determine the "highest and best" use of the property. The highest and best use is the use of the property that is its most profitable use at a specific time (as of January 1), that is legally permissible, physically possible and financially feasible. Highest and best use is not always the actual current use of the property. The only time highest and best use is not considered is in the appraisal of a residence homestead property. In this instance, the residence homestead value must be determined solely on the basis of its current use.

Data Collected

The appraisal district staff begins the appraisal process by performing data collection of all property. Staff appraisers will inspect each property noting the individual characteristics of the property that affect value such as size (square feet), age, quality of construction, physical condition, restrictions to use of property, terrain or topography, etc. The district has developed valuation schedules and models based on the different types of properties. Each property will be placed on the appropriate model based on its individual characteristics.

Statistical Analysis and Ratio Studies

Models are calibrated and adjusted annually through the use of ratio studies and statistical analysis. The district will compare actual sales prices of individual properties to the value produced to that property through the model and determine the appropriate adjustment that is needed for the model. Ratio studies allow the district to measure and evaluate the two major aspects of mass appraisal models:

Level of Appraisal Accuracy and Uniformity

a) Level of appraisal accuracy refers to the overall ratio of appraised values to market values of properties within the same category or market area. Level measurements provide information about the degree to which mass appraisal models are working and what adjustments are warranted. The measures of appraisal level that are calculated are the median ratio, mean ratio and weighted mean ratio. These are also referred to as measures of central tendency.
b) Level of appraisal uniformity refers to the degree to which properties are appraised at equal percentages of market value. Uniformity can be measured as
   1.) Coefficient of Dispersion (COD)
   The COD is the most generally useful measure of variability. The COD measures the average percentage deviation of the ratios from the median ratio. The COD has the desirable feature that its interpretation does not depend on the assumption that the ratios are normally distributed. This measure of variability relates to "horizontal" or random dispersions among the ratios regardless of the value of individual parcels.

2.) Price-Related Differential (PRD):
One form of inequity in a mass appraisal model can be a systematic difference in the appraisal of low and high-valued properties, termed “vertical” inequities. When low-value properties are appraised at greater percentages of market value than high-value properties, assessment regressivity is indicated. When the opposite occurs, assessment progressivity is the result. Appraisals made for tax purposes should be neither regressive nor progressive. The PRD should be close to 1.00. Measures above 1.00 indicate regressivity and measures below 1.00 suggest progressivity.

Rockwall Central Appraisal District Ratio Study Standards

Type of Property	Measure of Central Tendency	COD	PRD
Single-family residential newer, homogenous	0.90-1.10	10 or less	0.98-1.03
Single-family residential older, heterogeneous	0.90-1.10	15 or less	0.98-1.03
Rural residential	0.90-1.10	20 or less	0.98-1.03
Income producing large, urban jurisdictions	0.90-1.10	15 or less	0.98-1.03
Income producing smaller, rural jurisdictions	0.90-1.10	20 or less	0.98-1.03
Vacant land	0.90-1.10	20 or less	0.98-1.03
Other real and personal property	0.90-1.10	Varies with local conditions	0.98-1.03

<u>Value Approaches</u>

Because the market value of an unsold property is not only unknown but also uncertain, the district appraisers use three differing views of market value in appraisal.

a) Sales Comparison/Market Approach:
   This approach asks “What are properties similar to this property selling for?” In the absence of a sale of the subject, sales prices of comparable properties are usually considered the best evidence of market value. The sales comparison approach models the behavior of the market by comparing the properties being appraised (subjects) with similar properties that have recently sold (comparable sales). Comparable sales are selected for similarity to the subject property. Their sales prices are then adjusted for their differences from the subject. Finally, a market value for the subject is estimated from the adjusted sales prices of the comparable sales.
b) Income Approach:

This approach asks “What would an investor pay in anticipation of future income from the property?” The income approach is usually used to appraise types of properties that generate income, such as office buildings, hotels or retail centers. This approach is based on the principle that the value of an investment property reflects the quality and quantity of the income it is expected to generate over its life. That is, value is the estimated present value of future benefits (chiefly income and proceeds from the sale of the property).

Estimating the value of an income-producing property is done by capitalization. In its simplest form, capitalization is the division of a present income by an appropriate rate of return to estimate the value of the income stream.

In doing an income approach, the appraisal district will look at the market for typical rents and expenses of similar properties as it is the fee simple estate being appraised. The typical formula that will be used in the income approach is:

Potential Gross Rent
Less
Vacancy and Collection Loss
Plus
Miscellaneous Income
Equals
Effective Gross Rent
Less
Allowable Operating Expenses
Equals
Net Operating Income
Divided by
Capitalization Rate

c) Cost Approach:

This approach asks “How much would it cost to replace the property with one of equal utility?” The cost approach is justified in part by the principle of substitution; an informed buyer will pay no more for an improved property that the price of acquiring a vacant site and constructing a substitute building of equal utility, assuming no costly delays in construction. The cost approach requires estimates of land value, accrued depreciation and the current cost of constructing the improvements. Depreciation is subtracted from the current construction cost to obtain an estimate of improvement value.

A land value that reflects the value of the site as if vacant and available to be developed to its highest and best use is added to the value of the improvements. The steps in the cost approach are:

1. Estimate land value as if vacant at highest and best use
2. Estimate replacement cost new of improvements

3. Estimate the accrued depreciation of improvements
    a. Physical deterioration
    b. Functional obsolescence
    c. External (economic) obsolescence
4. Subtract the accrued depreciation from the total cost new of improvements
5. Add land value and depreciated improvement value to arrive at total value

The cost approach works best for new construction as there is very little depreciation to account for. The cost approach is also a reliable method for unique properties that have no available sales comparables.

Depreciation

Depreciation schedules, for mass appraisal purposes, can be developed from market data. Sales are grouped by building type, land and miscellaneous improvement values are subtracted, leaving a building residual value. The building residual value is subtracted from the replacement cost new (RCN) to determine the dollar amount of depreciation. The market derived depreciation is divided by the RCN to determine the percentage of depreciation. The percentages can be plotted against the effective age to create a curve through the data to correlate the depreciation to age. This data can then be used to create depreciation tables.

Consideration of Value Approach by Property Type

The appropriateness of each valuation approach varies with the type of property under consideration. The table below ranks the relative usefulness of the three approaches in the mass appraisal of major types of properties. The table assumes there are not major statutory barriers to obtaining cost, sales and income data. Although certain approaches tend to produce better results for a given type of property, the use of two or more approaches should produce greater accuracy.

	Cost Approach	Sales Comparison Approach	Income Approach
Single-Family Residential	2	1	3
Multi-Family Residential	3	1, 2	1, 2
Commercial	3	2	1
Industrial	1, 2	3	1, 2
Non-Agricultural Land	-	1	2
Agricultural Land	-	2	1
Special-Purpose	1	2, 3	2, 3

Land Valuation

In appraising land the appraiser will take into consideration the four basic factors that affect land values:

1. Physical Attributes of the Site- Ex. Topography
2. Economic Conditions- Ex. Location
3. Government Influences- Ex. Zoning
4. Social Standards- Ex. Country Club

There are four methods of appraising land used by our appraisers:

1. Sales Comparison (Market Approach)
   This is the preferred method if sufficient sales data of vacant land is available. This method produces the most reliable indication of land value. In using this method the appraiser must make adjustments to the comparable sales for financing, time, locational characteristics, physical characteristics and any restrictions to the land.
2. Allocation by Ratio
   This method works well for appraising lot values in a residential subdivision where few vacant lot sales are available. In this method the appraiser will:
   - Identify comparable sales of improved land
   - Estimate the ratio of land value to property value ratio
   - Apply the “typical” ratio to estimate the land value of the subject property
3. Allocation by Abstraction
   In this method the appraiser will find the sale of a comparable improved property and subtract the depreciated replacement cost new of the improvement to arrive at the land value.
4. Capitalization of Ground Rent (Income Approach)
   To capitalize a ground rent the appraiser must have reliable income information of rents of similar land and divide the market rent by the appropriate capitalization rate to produce an indication of value.

This handout was intended to give property owners the basic framework of property appraisals and does not include detailed information regarding property appraisal. For more information please feel free to contact our office at 972-771-2034 and one of our staff members will assist you with any questions you might have.