



**MADISON COUNTY APPRAISAL DISTRICT**  
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## **2020 MASS APPRAISAL REPORT**

### **INTRODUCTION**

#### ***Scope of Responsibility***

The Madison County Appraisal District, known here on as MCAD, has prepared and published this report to provide our citizens and taxpayers with a better understanding of the district's responsibilities and activities. This report has several parts: a general introduction and then several sections describing the appraisal effort by the CAD.

MCAD is a political subdivision of the State of Texas created effective January 1, 1980. The provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the appraisal district. A member board of directors, appointed by the taxing units within the boundaries of Madison County, constitutes the district's governing body. The chief appraiser, appointed by the board of directors, is the chief administrator and chief executive officer of the CAD.

The appraisal district is responsible for local property tax appraisal and exemption administration for 5 taxing units in the county. Each taxing unit, Madison County, Madisonville CISD, City of Madisonville, North Zulch ISD and Normangee ISD, sets its own tax rate to generate revenue. Appraisals established by MCAD allocate the year's tax burden on the basis of each taxable property's January 1<sup>st</sup> market value. We also determine eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, and charitable and religious organizations.

Except as otherwise provided by the Property Tax Code, all taxable property is appraised at its “market value” as of January 1<sup>st</sup>. Under the tax code, “market value” means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- Exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- Both the seller and the buyer 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;
- Both the seller and buyer seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Understood in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated.
2. Both parties are well informed or well advised, and both are acting in what he considers his/her own best interest.
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in cash or its equivalent.
5. Financing, if any, is on terms generally available in the community at the specified date and typical for the property type in its locale.

The price represents a normal consideration for the property sold unaffected by special financing amounts and/or terms, services, fees, costs or credits incurred in the transaction.

The Property Tax Code defines special appraisal provisions for the valuation of residential homestead property (Sec. 23.23), productivity (Sec.23.41), real property inventory (Sec 23.12), dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), nominal (Sec. 23.18) or restricted use properties (Sec.23.83) and allocation of interstate property (Sec. 23.03). The owner of real property inventory may elect to have the inventory appraised at its market value as of September 1<sup>st</sup> of the year proceeding the tax year to which the appraisal applies by filing an application with the chief appraiser.

The Texas Property Tax Code, under Sec. 25.18, requires each appraisal office to implement a plan to update appraised values for real property at least once every three years. The district’s current policy is to reappraise 1/3 of the county every year completing the reappraisal cycle on the third year. However, appraised values are reviewed annually and are subject to change for the purposed of equalization. Personal property is appraised every year.

The appraised value of real estate is calculated using specific information about each property. Using computer-assisted appraisal programs, and recognized appraisal methods and techniques, we compare that information with the data for similar properties, and with recent market data. The district follows the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the appraisal foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable. In cases

where the appraisal district contracts for professional valuation services, the contract that is entered into by each appraisal firm requires adherence to similar professional standards.

### ***Personnel Resources***

The Office of the Chief Appraiser is responsible for all appraisal district functions. The Administrative Department's function is to plan, organize, direct and control the business support functions related to human resources, budget, finance, records management, purchasing, fixed assets, facilities and postal services. The Appraisal Department is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, and industrial. The districts appraisers are registered with the Texas Department of Licensing and Regulation. Support functions including records maintenance, information and assistance to property owners are coordinated by the Support Services Department.

The appraisal district staff consists of 5 employees with the following classifications:

- Chief Appraiser
- Deputy Chief Appraiser
- Field Appraiser
- Administrative Secretary
- Front Office/Data Clerk

### ***Data***

The district is responsible for establishing and maintaining approximately 35,000 real and personal property accounts within Madison County. This data includes property characteristic and ownership and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review during the reappraisal phase. Sales are routinely validated during a separate field effort; however, numerous sales are validated as part of the new construction and data review field activities. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires to buyer and seller, university research centers, and market data centers and vendors.

The district maintains ownership maps and various layers of data, including zip code, property and aerial photography. The district's website ([www.madisoncad.org](http://www.madisoncad.org)) makes a broad range of information available for public access, Other data including detailed information on the appraisal process, property characteristics data, residential sales, certified values, protests and appeal procedures, property maps, and a tax calendar are available at the MCAD office. Related tax information and district forms, including exemption applications and business personal property renditions are also available at MCAD office.

## *Information Systems*

The mainframe hardware/system software is CAMA (Computer Assisted Mass Appraisal) system supported by True Automation. Internet records are maintained by True Automation and MCAD. Maps are based on an ArcView system supported by True Automation. MCAD personnel makes tract splits or merges and forwards the changes to True Automation for map updating. The user base is served by general-purpose Desktop and Server PC's, along with terminal emulation to mainframe windows.

### INDEPENDENT PERFORMANCE TEST

According to Chapter 5 of the TPTC and Section 403.302 of the Texas Government Code, the State comptroller's Property Tax Assistance Division conducts an biannual property value study (PVS) of each Texas school district and each appraisal district. As a part of this biannual study, the code also requires the Comptroller to: use sales and recognized auditing and sampling techniques; review each appraisal district's appraisal methods, standards and procedures to determine whether the district used recognized standards and practices (MSP review); test the validity of school district taxable values in each appraisal district and presume the appraisal roll values are correct when values are valid; and, determine the level and uniformity of property tax appraisal in each appraisal district. The methodology used in the property value study includes stratified samples to improve sample representativeness and techniques or procedures of measuring uniformity. This study utilizes statistical analysis of sold properties (sale ratio studies) and appraisals of unsold properties (appraisal ratio studies) as a basis for assessment ratio reporting. For appraisal districts, the reported measures include median level of appraisal, coefficient of dispersion (COD), the percentage of properties within 10% of the median, the percentage of properties within 25% of the median, and price-related differential (PRD) for properties overall and by state category (i.e., categories A, B, C, D and F1 are directly applicable to real property).

There are 3 independent school districts for which appraisal rolls are annually developed. The preliminary results of this study are released in January in the year following the year of appraisal. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of appraisal. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

# MASS APPRAISAL

**MASS APPRAISAL** is the valuing of a large universe of properties as of a given date, in a uniform order, utilizing standard methodology, employing a common reference for data, and allowing for statistical testing.

The main goal is the structuring of a systematic mass appraisal program to effect the appraisal of properties in such a way as to yield valid, accurate, and equitable property valuation at a reasonable cost dictated by budgetary limitations, and within a time span totally compatible with assessing administration needs. To be effective the reappraisal program must:

- use proven and professionally acceptable techniques and procedures;
- provide for the compilation of complete and accurate data and the processing of that data into an indication of value approximating the prices actually being paid in the market place;
- provide the necessary standardization measures and quality controls essential to promoting and maintaining uniformity throughout the jurisdiction;
- provide the appropriate production controls necessary to execute each phase of the operation in accordance with a carefully planned budget and work schedule; and,
- Provide techniques especially designed to streamline each phase of the operation, eliminating functions, and reducing the complexities inherent in the appraisal process to more simplified but equally effective procedures.

The prime objective of mass appraisal for tax purposes is to determine fair and equitable property values in compliance with the *Uniform Standards of Professional Appraisal Practice (USPAP)*.

A comprehensive record of all the significant physical and economic characteristics of each property, is needed in order to compare the properties of “unknown” values with the properties of “known” values. All significant differences between properties must in some measure, either positively or negatively, be reflected in the final estimate of value.

Each property must be given individual treatment, but the treatment must be uniform and standardized, and essentially no different than that given to any other property. All the factors affecting values must be analyzed and evaluated for each and every property within the jurisdictional boundaries. This will insure that equalization between properties and between classes of properties can be achieved.

In summary, the objective of an individual appraisal is to arrive at an opinion of value, the key elements being the validity of the approach and the accuracy of the estimate. The objective of a mass appraisal for tax purposes is essentially the same. However, in addition to being valid and accurate, the value of each property must be equitable to each other property, and what's more, these valid, accurate, and equitable valuations must be generated as economically and efficiently as possible.

**Uniformity** is assured by measuring central tendency (mean, median, or weighted mean). The Coefficient of Dispersion (C.O.D.) provides data about the quality and uniformity of appraisal. A measure of central tendency near 1.00 or 100% is an indication that properties are being appraised at or near market value. Similar measures of central tendency for different geographical areas and classes of property are utilized to insure that appraisals are evenly distributed.

Section 23.01 of the Texas Property Tax Code states:

- (a) Except as otherwise provided by this chapter, all taxable property is appraised at its market value as of January 1.
  
- (b) The market value of property shall be determined by the application of generally accepted appraisal methods and techniques. If the appraisal district determines the appraised value of a property using mass appraisal standards, the mass appraisal standards must comply with the USPAP. The same or similar appraisal methods and techniques shall be used in appraising the same or similar kinds of property. **However, each property shall be appraised based upon the individual characteristics that affect the property's market value.**

## **BUNDLE OF RIGHTS**

Real estate and real property are often used interchangeably. Generally speaking, REAL ESTATE pertains to the real or fixed improvements to land such as structures and other additives, whereas REAL PROPERTY encompasses all the interests, benefits and rights enjoyed by the ownership of the real estate.

Real property ownership involves the Bundle of Rights Theory, which asserts that the owner has the right to enter it, use it, sell it, lease it, or give it away, as he so chooses. Law guarantees these rights, but they are subject to certain governmental and private restrictions.

The Governmental restrictions are found in its power to:

- tax property (Taxation);
- take property by condemnation for the benefit of the public, providing that just compensation is made to the owner (Eminent Domain);
- police property by enforcing any regulations deemed necessary to promote the safety, health, morals and general welfare of the public. (Police Power); and,
- provide for the reversion of ownership to the state in cases where a competent heir to the property cannot be ascertained (Escheat).

Private restrictions imposed upon property are often in the form of agreements incorporated into the deed. The deed spells out precisely which rights of the total bundle of rights the buyer is acquiring. Since value is related to each of these rights, it benefits the appraiser to know precisely which rights are involved in his/her appraisal.

Appraisals for **ad valorem tax purposes generally assume the property is owned in “Fee Simple”** meaning that the total bundle of rights is considered to be intact. (**Fee Simple** is defined as an absolute fee; a fee without limitation to any particular class of heirs or restrictions, but subject to the limitation of eminent domain, escheat, police power, and taxation.)

## VALUATION PROCEDURES

In any determination of value, data is sought in the local market on such factors as sales and offerings of similar properties and tracts of vacant land; current cost of reproduction of the improvements; rentals of similarly improved properties; and the current rate of return on investments and comparable properties. From this data, a value can be developed for both the land and the property as a whole. For the latter, several methods may be used: the cost approach, the income approach and the market data approach.

For ad valorem tax purposes, the value sought is generally market value. The descriptive term “market” indicates the activity of buyers and sellers. **Market Value** is the justifiable price, or that price an informed and prudent buyer, fully aware of the existence of competing properties, and not being compelled to act, would be justified in paying for a particular property.

## APPROACHES TO VALUES

### Highest and Best Use

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. In determining the market value of property, the chief appraiser shall consider the cost, income, and market data comparison methods of appraisal and use the most appropriate method pursuant to tax code section 23.0101

**THE COST APPROACH** involves making an estimate of the depreciated cost of reproducing or replacing the building and site improvements. REPLACEMENT COST refers to the cost of reproducing improvements of equal utility. From this cost now is deducted any depreciation for loss in value caused by physical deterioration, and functional or economic obsolescence. To this depreciated cost is then added the estimated value of the land, resulting in an indication of value derived by the Cost Approach.

**THE MARKET APPROACH** involves the compiling of sales data of properties that are comparable to the property being appraised. These sales are then adjusted for any dissimilarity, and a value range obtained by comparison of said properties. The approach is reliable to the extent that the properties are comparable, and the appraiser's judgment of proper adjustments is sound. The procedure for using this approach is essentially the same for all types of property.

The significance of this approach lies in its ability to produce estimates of value that directly reflect the attitude of the market within MCAD. Its application is contingent upon the availability of comparable sales, and therefore finds its widest range in the appraisal of vacant land and residential properties.

**THE INCOME APPROACH** measures the present worth of the future benefits of a property by the capitalization of the net income stream over the remaining economic life of the property. The approach involves making an estimate of the "effective gross income" of a property, derived by deducting the appropriate vacant and collection losses from its estimated economic rents, as evidence by the yield of comparable properties. From this figure then are deducted applicable operating expenses, the cost of taxes and insurance, and reserve allowance for replacements resulting in an estimate of income, which may then be capitalized into an indication of value.

It is the assigned appraiser's duty to determine which approach to value will render the most accurate results.

Any one or all three, of the approaches, if applied properly, should lead to a decision of market value; of primary concern is to apply the approaches on an equitable basis. Each property must be physically reviewed, during which time the reviewer must:

- Verify the accuracy of each of the characteristics recorded on the field cards.

- Certify that the proper schedules and cost tables were used in computing the replacement cost of each building and structure.
- Verify the proper class and condition to be applied to each building to account for variations from the base specifications.
- Judge the overall condition, desirability, and usefulness of each improvement in the process of verifying allowance for depreciation.
- Capitalize net income into an indication of value in order to determine the loss of value attributable to functional and economic obsolescence.
- Review the total property value in relation to the value of comparable properties.

## **RESIDENTIAL VALUATION PROCESS**

### **DISCOVERY POLICY**

MCAD's discovery policy is as follows. During the reappraisal cycle 1/3 one third of the county will be reappraised with a field inspection to verify improvements and measurements. Any new improvements, upgrades, etc to the property will be measured and classed accordingly. MCAD receives permits throughout the year from the County, County Clerk, City, HUD and 911 office. Those properties are flagged to be rechecked for that appraisal year. The recheck list is printed and each property is inspected for potential new improvements. MCAD field appraisers are to make notes of any new improvements, upgrades, etc they see during their daily field work. Those notes are brought back to the office and the accounts are flagged for a recheck if they are not already. Any notes pertaining to construction of utilities properties are given to the utilities appraisal firm we contract with through written form , phone call, email or conversation.

All residences are measured and classed. Classification is determined by style, quality of construction, materials used, customization and size. The appraiser matches these factors to a description of class which has a correlating range of square foot values. On existing improvements, the appraiser verifies the class and depreciation. If the improvement has any upgrades or has been remodeled, adjustments are made to the physical depreciation and effective year. Conversely if the improvement has accelerated depreciation, that too is reflected in the physical depreciation and effective year. Any other obsolescence are noted and categorized as Functional or Economic. Attributes such as fireplaces and CHCA and noted and added during the input process.

## LAND VALUATION

Land is valued as if vacant and available for the highest and best use. Similar land “recently sold” is analyzed and comparisons are made for such factors as size, time, location, and physical characteristics.

The most frequently used method in estimating the value of land is the **Comparable Sales Method** in which land values are derived from analyzing the selling prices of similar sites. This method is in essence the application of the market-data approach to value and all the considerations pertaining thereto are equally applicable here.

The appraiser must select comparable and valid market transactions, and must weigh and give due consideration to all the factors significant to value, adjusting each to the subject property. The comparable sites must be used in the same way as is the subject property, and subjected to the same zoning regulations and restrictions. It is also preferable, whenever possible, to select comparables from the same or a similar neighborhood or area. The major adjustments will be to account for variations in time, location, and physical characteristics to include size, shape, topography, landscaping, access as well as other factors which may significantly influence the selling price, such as the productivity of farm land. **If a residence is located on the land account one acre will be split out for the home site land segment and will not receive any special evaluation. Up to 20 acres may be put in the home site segment per owner’s request.**

Although it is always preferable to use sales of unimproved lots for comparables, it is not always possible to do so. Older neighborhoods are not likely to yield a sufficient number of representative sales of unimproved lots to permit a valid analysis. In such cases, in order to arrive at an estimate of land values using the comparable sales approach, it is necessary to consider improved property sales and to estimate the portion of the selling price applicable to the structures. The procedure would be to estimate the replacement cost of the buildings as of the date of sale, estimate the accrued depreciation and deduct that amount from the replacement cost resulting in the estimated selling price of the buildings which can be deducted from the total selling price of the property to derive at the portion of the selling price which can be allocated to the land. The equation is as follows:

$$\begin{array}{r} \text{Selling Price of Property} \\ - \text{Estimated Depreciated Value of Buildings} \\ \hline = \text{Indication of Land Value} \end{array}$$

In order to apply the comparable sales method it is first necessary to establish a common unit of comparison. The units generally used in the valuation of land are price per square foot and price per acre. The selection of any one particular unit depends upon the type of property under appraisal; square footage being commonly used for platted, uniform type lots and acreage for larger, unplatted tracts, as well as irregularly shaped lots or tracts lacking in uniformity.

The utility of a site will vary with the frontage, width, depth and overall area. Similarly, the unit land values should be adjusted to account for differences in size and shape between the comparables and the subject property.

During the process of adjusting the comparable sales to account for variations between them and the subject property, the appraiser must exercise great care to include all significant factors and to properly consider the impact of each of the factors upon the total value. If done properly, the adjusted selling prices of the comparable properties will establish a range in value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level, which is most applicable to the subject property.

## **COMMERCIAL APPRAISAL**

### ***Appraisal Responsibility***

This mass appraisal assignment includes all of the commercially classed real property, which falls within the responsibility of the appraisers of the Madison County Appraisal District. The appraisal roll displays and identifies each parcel of real property individually. Appraisers appraise the fee simple interest of properties according to statute. However, the effect of easements, restrictions, encumbrances, leases, contracts or special assessments are considered on an individual basis.

### ***Cost Approach***

The cost approach to value is applied to all improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on the Marshall Swift Valuation Service. Because a national cost service is used as a basis for the cost models, locational modifiers are necessary to adjust these base costs specifically for Madison County.

Depreciation schedules are developed based on what is typical for each property type at that specific age. Schedules have been developed for improvements with 40, 50, 55 and 60 year expected life. The actual and effective ages of improvements are noted in CAMA. Effective age estimates are based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and its competitive position in the marketplace.

Market adjustment factors such as external and/or functional obsolescence can be applied if warranted. A depreciation calculation override can be used if the condition or effective age of a property varies from the norm by appropriately noting the physical condition and functional utility ratings on the property data characteristics. Accuracy in the development of the cost schedules, condition ratings and depreciation schedules will usually minimize the necessity of this type of an adjustment factor.

### ***Income approach***

The income approach to value should only be applied to those real properties which are typically viewed by market participants as "income producing", and for which the income methodology is considered a leading value indicator. Although a cost approach is calculated within the PACS appraisal system on all properties, income producing properties such as apartments, hotel, motels, and office buildings, etc. are typically valued based on the income approach. The income approach is calculated by using either the direct capitalization method or the revenue multiplier method.

Pursuant to Tax Code Section 23.012, the chief appraiser shall:

- 1) Analyze comparable operating expense data available to the chief appraiser to estimate the operating expenses of the property;
- 2) Analyze comparable operating expense data available to the chief appraiser to estimate the operating expenses of the property;
- 3) Analyze comparable data available to the chief appraiser to estimate rates of capitalization or rates of discount; and
- 4) Base projections of future rent or income potential and expenses on reasonably clear and appropriate evidence.

### ***Collecting Income Data***

MCAD will annually collect income and expense data on income producing properties in each class to test the income models. Sales surveys, phone surveys, publications/subscription, websites and inquiring with neighboring CAD's will be used to acquire data.

The data collected in these surveys will then be broken into "income" and "expense" categories. The data is then sorted into the three classes of income producing properties Low, Medium and High. The data is then used to test the current models under those classes, including market rents, allowable expenses and discount or capitalization rates.

### ***Expense data***

The projected vacancy and collection loss allowance is established from actual data furnished by property owners and local market survey trends. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an indication of estimated annual effective gross rent to the property. Secondary income or service income is considered and calculated as a percentage of stabilized effective gross rent. The secondary income estimate is derived from actual data collected and available market information. The secondary income estimate is then added to effective gross rent to arrive at an effective gross income. Allowable expenses and expense ratio estimates are based on a study of the local market, with the assumption of prudent management. An allowance for non-recoverable expenses such as leasing costs and tenant improvements may be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Relevant expense ratios are developed for different types of commercial property based on use and market experience. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for all operating expenses, such as ad valorem taxes, insurance, and common area and property maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. As a result, expense ratios are implemented and estimated based on observed market experience in operating various types of commercial property. Another form of allowable expense is the replacement of short-lived items (such as roof or floor coverings, air conditioning or major mechanical equipment or appliances) requiring expenditures of lump sum costs. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves.

For some types of property, typical management does not reflect expensing reserves and is dependent on local and industry practices. Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves when applicable) from the annual effective gross income yields an estimate of annual net operating income to the property. Return rates and income multipliers are used to convert operating income into an estimate of market value for the property under the income approach. These include income multipliers, overall capitalization rates, and discount rates. Each of these multipliers or return rates are

considered and used in specific applications. Rates and multipliers may vary between property types.

#### **Components of the Discount Rate**

**Safe Rate + Risk Rate + Non-Liquidity Rate + Management Rate = Total Discount Rate**

**Safe Rate**- The rate obtainable with the most safety and least risk

**Risk Rate**- the return commensurate with risk assumed by the investor

**Liquidity Rate**- the rate necessary because an investment in real estate ties up money that cannot be quickly converted to cash

**Management Rate**- the rate component in order to compensate for the times and cost involved in managing the real estate investment.

#### **COMMERCIAL CLASSES**

**LOW**- Poorly constructed property located in a low performing economic area. These properties generally have a high level of deferred maintenance. They typically have a lower occupancy rate and market rents.

**MEDIUM**- Average constructed property located in an average to moderate performing economic areas. These properties generally have a medium level of deferred maintenance. They typically have an average occupancy rate and market rents.

**HIGH**- Higher than average quality construction located in a highly competitive market area. These properties generally have little to no deferred maintenance. They typically have high occupancy rates and market rents.

The basic formula for the income approach is

#### **Market Value Net Operating Income Divided By Overall Cap Rate**

This is also known as "Direct Capitalization", which is a generally accepted appraisal technique used to convert one year's stabilized income into an indication of market value. The PACS income approach module provides the mechanism to capture and specify a property's income characteristics for three levels or variable situations known as "Pro Forma", "Direct Cap" (actual) and "Schedule" (market). The income formula is the same for each income variable but the data used to populate each situation may differ. The "Direct Cap" allows the appraiser to use actual income characteristics that are property specific to create an income model individual to the property.

Some of the key model fields in the income approach formula include gross potential income, economic vacancy, secondary income, total operating expenses, net operating income and capitalization rate.

The income approach formula is generally expressed the following way. A brief definition of each component of the formula is listed below.

**Potential Gross Rent Minus  
Vacancy & Collection Loss  
Equals  
Effective Gross Rent Plus  
Secondary Income Equals  
Effective Gross Income  
Minus  
Operating Expenses  
Equals Net Operating Income  
Then Net Operating Income/Overall Cap Rate = Value**

Potential Gross Rent (PGR). Total economic or market rent at 100% occupancy; usually expressed as an annual amount on a per square foot or per unit basis.

Vacancy and Collection (V&C). - Loss in rental income because of economic vacancy, bad debt or economic rental concessions; often expressed as a percent of PGR; based on market cycles and trends.

Effective Gross Rent (EGR.) - Rental income after subtracting vacancy & rental loss from potential gross rent.

Secondary or Other income -. Income, other than rent, that is received from concessions; laundry rooms, parking, storage area rental, electronic communication roof space rental, and other sources related to ordinary operation of a property. Can be expressed as a percentage of PGR or EGR or dollar amount per unit of measure.

Effective Gross Income -. Amount of actual income received from rent and secondary sources.

Operating Expenses- Expenses necessary to maintain a cash flow from the real property (not from the business). Typical expenses include management, utilities, property insurance, property taxes, repairs and maintenance, etc. This dollar amount can also be expressed as a percentage or ratio that represents total expenses divided by effective gross income.

Net Operating Income (NOI). - Income remaining after subtracting operating expenses from Effective Gross Income. This amount is income before debt service, property depreciation, personal income taxes, amortization, or interest payments.

Overall Capitalization Rate (OAR.) - Rate used to convert income into value. An overall rate represents the requirements of discount (return), recapture and effective tax rates for the whole property. This is expressed as cap rate plus tax rate. If the tax rate is "loaded" into the cap rate, then the amount of real estate taxes is removed as an expense item.

Actual income data is property specific, but income characteristics derived from these "actuals" are generally representative of typical, market-based characteristics for similar income-producing properties. Standardized or "default income models" can be developed by grouping these actual income comparables based on specific comparison or search criteria under "Pro Forma" in the Income model. The groupings provide a results set of income parameters that can be reviewed and analyzed. The income parameters that can be reviewed include potential gross rent per square foot, economic vacancy percent, other income per square foot or as a percentage of effective gross income, and expenses per square foot or as a percentage of effective gross income, as the information is available.

## **RATIO STUDY**

Ratio studies are done every year per category and by class, Land, Residential, Commercial and Industrial, etc. Using our CAMA system, the study is sorted by date, ratio type and sale type code. Vacant land is the first to be studied. It is sorted by rural, residential and commercial. Outliers are defined and flagged in the system. If there is enough information to determine an accurate time adjustment, that is done at this point. The study is reproduced with all sales considered and the outliers disregarded. The mean, median, mode, coefficient of dispersion and weighted mean and are calculated from the CAMA system. If there is enough data to determine new market areas, they will be tested. The results of the ratio study are compared to the current schedules and adjustments are made when needed. These steps are repeated for all categories and classes of property until all schedules have been tested and approved.

## **SALES GATHERING**

Sales gathering is done throughout the year. All ownership transfers, with the exception of Gift Deeds and Executor Deeds, are mailed a sales survey to the buyer and seller. As they are returned, the sales surveys are researched and determined to be arms length or not. They are then entered into the CAMA system as arms length or disqualified. If any time adjustments can be determined they are then adjusted. Sales information may also be received from outside sources such as Fee Appraisers, real estate firms, information provided at an ARB hearing and subscription companies. That information is also researched and confirmed.

### **Staff providing Mass Appraisal Assistance**

**Matt Newton, Chief Appraiser**

**Randy Dudley, Deputy Chief Appraiser**

**Michelle Clary, Appraiser**

**Joel Black, Appraiser**

APPRAISER'S CERTIFICATION:

I, Matt Newton, Chief Appraiser for the Madison County Appraisal District, solemnly swear that I made or caused to be made a diligent effort to ascertain all property in the district subject to appraisal by me. I included in the records all property of which I am aware at an appraised value which, to the best of my knowledge and belief, was determined as required by law. I further certify the following:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- I have no present or prospective interest in the property that is the subject of this report and I have no personal interest with respect to the parties involved.
- I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- My engagement in this assignment was not contingent upon developing or reporting Predetermined results.

My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.

I have not made a personal inspection of all the properties that are the subject of this report.

*Matt Newton*

**Matt Newton**

**8-10-20**