

**From:** Julie Schwartz, <[jschwartz@rvmlaw.com](mailto:jschwartz@rvmlaw.com)>  
**Sent:** Friday, January 17, 2025 1:29 PM  
**To:** DORPTO <[DORPTO@floridarevenue.com](mailto:DORPTO@floridarevenue.com)>  
**Cc:** Estrella Baldomero <[ebaldomero@rvmlaw.com](mailto:ebaldomero@rvmlaw.com)>  
**Subject:** FW: Florida Real Property Appraisal Guidelines

**Caution:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attached please find comments to the proposed Florida Real Property Appraisal Guidelines. Our firm has been representing taxpayers throughout the state of Florida in connection with ad valorem property taxes for over 30 years.

We appreciate the PTO's updating and streamlining of the Guidelines. In reviewing them, however, there are a few important concepts that we believe were omitted, and should be included. We have made comments with proposed additions and changes directly on the attached pdf version of the revised guidelines.

Thank you in advance for your consideration of these comments and we look forward to further public meetings to discuss the incorporation of these concepts into the new guidelines. An open, public and fair process is critical to fair taxation.

Sincerely,

**Julie Schwartz, Esq.** | [vCard](#)



RENNERT VOGEL  
MANDLER & RODRIGUEZ, P.A.  
ATTORNEYS AT LAW

100 SE 2nd Street, 29th Floor | Miami, FL 33131

305-375-6583 Direct | [jschwartz@rvmlaw.com](mailto:jschwartz@rvmlaw.com)

Miami | Boca Raton

[DISCLAIMER](#)

Exclusive Florida Member, American Property Tax Counsel

[www.aptcnet.com](http://www.aptcnet.com)

# Florida Real Property Appraisal Guidelines



Property Tax Oversight  
XXXX 2024

## 1.0 INTRODUCTION

**1.1 Overview and Specific Authority.** Section 195.002(1), Florida Statutes (F.S.), identifies the Florida Department of Revenue (Department) as a state administrative agency with the statutory responsibility of general supervision of the assessment and valuation of property, and the administration and collection of property taxes. The Department's supervision is necessary to ensure all property is placed on the tax rolls and valued in accordance with the requirements of the state constitution.

Every four years, the voters in each Florida county elect a property appraiser as directed by Article VIII, section 1(d), of the Florida Constitution. Section 192.001(3), F.S., states the property appraiser is "the county officer charged with determining the value of all property within the county, with maintaining certain records connected therewith, and with determining the tax on taxable property after taxes have been levied." In the course of discharging its statutory duties, the Department provides general supervision to the property appraiser of each of the 67 counties in the state of Florida.

Property Appraisers have the statutory responsibility to list and appraise all real property in their respective county each year for purposes of ad valorem taxation, as stated in ss. 192.011 and 193.085(1), F.S.

Section 192.011, F.S., states, in pertinent part "[t]he property appraiser shall assess all property located within the county, except inventory, whether such property is taxable, wholly or partially exempt, or subject to classification reflecting a value less than its just value at its present highest and best use." Section 193.085(1), F.S., states, in pertinent part "[t]he property appraiser shall ensure that all real property within his or her county is listed and valued on the real property assessment roll."

Sections 195.062(1) and 195.032, F.S. specifically direct the Department to establish standard measures of value, which include these *Real Property Appraisal Guidelines* to aid and assist property appraisers in performing their assessment and valuation responsibilities. Statute provides the specific authority and legislative directive for the Department's development of these guidelines, as well as underscore's the Legislature's intent to limit the scope of their use.

Section 195.062(1), F.S., states, in pertinent part:

*The department shall prepare and maintain a current manual of instructions for property appraisers and other officials connected with the administration of property taxes. This manual shall contain all:*

- (a) Rules and regulations.*
- (b) Standard measures of value.*
- (c) Forms and instructions relating to the use of forms and maps.*

Section 195.032, F.S., states:

*In furtherance of the requirement set out in section 195.002, the Department of Revenue shall establish and promulgate standard measures of value not inconsistent with those standards provided by law, to be used by property appraisers in all counties, including taxing districts, to aid and assist them in arriving at assessments of all property. The standard measures of value shall provide guidelines for the valuation of property and methods for property appraisers to employ in arriving at the just valuation of particular types of property consistent with sections 193.011 and 193.461. The standard measures of value shall assist the property appraiser in the valuation of property and be deemed prima facie correct, but shall not be deemed to establish the just value of any property. However, the presumption of correctness accorded an assessment made by a property appraiser shall not be impugned merely because the standard measures of value do not establish the just value of any property.*

## 2.0 FOUNDATIONAL PRINCIPLES

Definitions for these key foundational mass appraisal terms are available in Addendum A:

Ad valorem tax  
Assessed value

Just value  
Mass appraisal

Quality control  
Real property

**2.1 Legal and Regulatory Foundations.** Section 192.042(1), F.S., requires that all real property must be assessed according to just value each year on January 1. Section 193.011, F.S., provides direction to property appraisers for the just valuation of real property for ad valorem tax purposes. It states:

**Factors to consider in deriving just valuation.**--In arriving at just valuation as required under s. 4, Art. VII of the State Constitution, the property appraiser shall take into consideration the following factors:

- (1) The present cash value of the property, which is the amount a willing purchaser would pay a willing seller, exclusive of reasonable fees and costs of purchase, in cash or the immediate equivalent thereof in a transaction at arm's length;
- (2) The highest and best use to which the property can be expected to be put in the immediate future and the present use of the property, taking into consideration the legally permissible use of the property, including any applicable judicial limitation, local or state land use regulation, or historic preservation ordinance, and any zoning changes, concurrency requirements, and permits necessary to achieve the highest and best use, and considering any moratorium imposed by executive order, law, ordinance, regulation, resolution, or proclamation adopted by any governmental body or agency or the Governor when the moratorium or judicial limitation prohibits or restricts the development or improvement of property as otherwise authorized by applicable law. The applicable governmental body or agency or the Governor shall notify the property appraiser in writing of any executive order, ordinance, regulation, resolution, or proclamation it adopts imposing any such limitation, regulation, or moratorium;
- (3) The location of said property;
- (4) The quantity or size of said property;
- (5) The cost of said property and the present replacement value of any improvements thereon;
- (6) The condition of said property;
- (7) The income from said property; and
- (8) The net proceeds of the sale of the property, as received by the seller, after deducting usual and reasonable fees and costs of the sale, including the costs and expenses of the sale, and an allowance for unconventional or atypical terms of financing arrangements. When the net proceeds of the sale of any property are utilized, directly or indirectly, in the determination of just valuation of realty of the sold parcel or any other parcel under the provisions of this section, the property appraiser, for the purposes of such determination, shall exclude any portion of such net proceeds attributable to payments for household furnishings or other items of personal property.

properly

and to record the methodology and results of such consideration in its records.

Section 193.011, F.S., requires the property appraiser to consider each of these eight criteria. These guidelines present other relevant statutes applicable to each of the eight factors listed above where appropriate.

Section 193.011, F.S. is specific to real property; the factors for valuation of land classified for agricultural use are listed in s. 193.461(6), F.S. The *Agricultural Classified Use Real Property Appraisal Guidelines* provide guidance for use valuation of such land.



In 1967 the Florida legislature added the 8th just valuation factor providing for property appraisers to deduct cost of sale in arriving at just valuations. Applying the 8th criteria is different from applying the other seven factors in sec. 193.011. This is because property appraisers generally apply the other seven factors through their annual appraisal process when they analyze and apply property specific appraisal data related to the other factors. However the general lack of market data impedes the verification of specific costs of sale. Therefore given this general lack of market data, property appraisers should apply a uniform percentage deduction and the across the board practice of uniform deduction of cost of sale is required to achieve just value. In fact, the Florida legislature requires property appraisers to annually report to the DOR the cost of sale deductions a property appraiser "made to recorded selling prices or fair market value" in arriving at assessed value, as prescribed by department rule. DOR implemented this reporting requirement by adopting rule 12D-8.0004.

The property appraiser is responsible for understanding and adhering to professionally accepted appraisal practices and appropriate appraisal methodologies to ensure that current standards of practice, as prescribed by Florida ad valorem tax law and the professional organizations cited above, are followed in arriving at just values.

**2.3 Foundations of Mass Appraisal in Florida.** Mass appraisal provides a structure for property appraisers to value large quantities of properties with a variety of uses as of the date of assessment. The process systematically considers the just values of other property within groups for equity. Because just valuations of real property for ad valorem tax purposes in Florida are generally performed using mass appraisal, these guidelines focus on the real property mass appraisal process.

*“Mass appraisal refers to methods that have been developed to solve large-scale valuation problems, such as when many properties must be appraised for the same purpose, often as of the same date and at low per-property cost. Mass appraisal is characterized by standardized procedures, common data, and statistical testing. It is a challenging activity rooted in economics that draws on statistical and spatial analysis of data from property markets. Like all spheres of appraisal, it requires experience and judgment.”<sup>1</sup>*

*“Market value for assessment purposes is generally determined through the application of mass appraisal techniques. Mass appraisal is the process of valuing a group of properties as of a given date and using common data, standardized methods, and statistical testing. To determine a parcel’s value, assessing officers must rely upon valuation equations, tables, and schedules developed through mathematical analysis of market data. 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 are correct, complete, and up-to-date. Properly administered, the development, construction, and use of a CAMA system results in a valuation system characterized by accuracy, uniformity, equity, reliability, and low per-parcel costs. Except for unique properties, individual analyses and appraisals of properties are not practical for ad valorem tax purposes.”<sup>2</sup>*

To fulfill the statutory duty to value real property, property appraisers may leverage the use of mass appraisal techniques. Mass appraisal is recognized by Florida ad valorem tax law as a professionally accepted appraisal practice (see ss. 193.023(2)(3) and 194.301(1), F.S.).

The following sections discuss fundamental topics relevant to the annual assessment of real property in Florida. These include:

- Real property rights
- Purpose and intended use
- Intended users
- Date of assessment
- Comparison of single-property appraisal and mass appraisal
- Education and training of assessment personnel

The fee simple estate in real property is the unencumbered ownership limited only by the four powers of government; taxation, police power, eminent domain and escheat.

**2.3.1 Real Property Rights.** For ad valorem tax purposes in Florida, the real property rights to be valued are the unencumbered fee simple estate, unless specified otherwise.<sup>3</sup>

<sup>1</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 1.

<sup>2</sup> International Association of Assessing Officers, *Standard on Mass Appraisal of Real Property* (Kansas City, MO: International Association of Assessing Officers, 2017), page 1.

<sup>3</sup> See *Schultz v. TM Florida-Ohio Realty Ltd Partnership*, 577 So.2d 573 (Fla. 1991).

### 3.0 THE MASS APPRAISAL PROCESS IN FLORIDA

Definitions for these key mass appraisal terms are available in Addendum A:

Ad valorem tax  
Assessment roll

Fee simple  
Just value

Personal property  
Ratio study

**3.1 Overview.** These guidelines address the steps for an effective mass appraisal process for just valuations of real property in Florida. The steps are not necessarily done in the sequence given since many of these steps are ongoing and may be performed not only sequentially, but also concurrently and interactively.

**3.2 Annual Just Valuation Cycle.** Property appraisers have many deadlines and significant calendar requirements they must meet, several of which apply to operations other than the just valuation of real property. These guidelines describe the activities and timeframes involved in just valuation. This is a limited description provided as a brief overview, and users should not rely solely on it for regulatory compliance.

The assessment date, or date of value, is January 1. Real property assessment for ad valorem tax purposes in Florida is an annual process. The scope of the mass appraisal in any given year includes:

- Updating the just values of the previous year
- Producing just values for newly platted land, new construction, parcels with changes in land use regulations, new parcels resulting from splits and combinations, etc.
- Preparing and submitting assessment rolls to the Department
- Responding to study results, evaluations, procedures reviews, or report findings from the Department
- Preparing and mailing truth in millage (TRIM) notices to taxpayers
- Participating in value adjustment board (VAB) proceedings
- Communicating with interested parties, including taxpayers, taxing authorities, elected and appointed officials

The process of updating just values for existing parcels and producing just values for new parcels is an independent function of the property appraiser and staff. It includes collecting and managing data, qualifying or disqualifying real property transfers, discovering and classifying property, defining market areas, specifying and calibrating valuation models, applying adjustments to reflect market changes over time, and conducting ratio studies and other applicable analyses.

Property appraisers are required to prepare and submit assessment rolls to the Department several times a year and respond to study results, evaluations, procedures reviews, or report findings from the Department. The Department communicates these requirements and the standards for the evaluation of the tax rolls in the annual [Tax Roll Production, Submission and Evaluation Standards](#). The standards are sent annually to property appraisers at the time of publication and are available online at this location:

[https://floridarevenue.com/property/Pages/Cofficial\\_CompleteSubRollEval.aspx](https://floridarevenue.com/property/Pages/Cofficial_CompleteSubRollEval.aspx)

**3.3 Identification of Real Property.** The first step in the valuation process is to identify the real property, as defined by s. 192.001(12), F.S., to be assessed. Just valuations should exclude personal property, as defined in s.192.001(11), F.S.

The Department prescribes the parcel data required for the assessment rolls in the [Tax Roll Production, Submission and Evaluation Standards](#). The real property assessment roll is comprised of the Name-Address-Legal (NAL) data file and the sale data file (SDF). The NAL has 92 data fields while the SDF has 14. Please refer to the [Tax Roll Production, Submission and Evaluation Standards](#) for the details of each field. Property



## 6.0 MASS APPRAISAL VALUATION

Definitions for these key mass appraisal valuation terms are available in Addendum A:

Actual age	Fee simple	Market participants
Contract rent	Functional obsolescence	Model specification
Deferred maintenance	Gross income multiplier (GIM)	Multiple regression analysis (MRA)
Direct capitalization	Highest and best use	Physical deterioration
Effective age	Just value	Replacement cost new (RCN)
External obsolescence	Market rent	Yield capitalization

**6.1 Highest and Best Use.** Florida ad valorem tax law guides the scope of highest and best use analysis in the just valuation of real property for ad valorem tax purposes. For just valuation purposes in Florida, present use means the real property's existing use as of the date of assessment. As specified in s. 193.011(2), F.S., the highest and best use and the present use of real property comprise the second of the eight factors property appraisers must consider in determining just value of real property. Specifically, this statute states: *"The highest and best use to which the property can be expected to be put in the immediate future and the present use of the property, taking into consideration the legally permissible use of the property, including any applicable judicial limitation, local or state land use regulation, or historic preservation ordinance, and any zoning changes, concurrency requirements, and permits necessary to achieve the highest and best use, and considering any moratorium imposed ..."*.

The data collection and management activities described in these guidelines are the primary mechanisms by which the property appraiser considers the real property's present use. Assigning the use code to real property is the first step in valuation. The Department's annual [Tax Roll Production, Submission and Evaluation Standards](#) includes the list of land use codes and descriptions. Property use codes applied to each real property parcel on the assessment roll should reflect the real property's present, or current use. Unless a change in highest and best use is reasonably probable in the immediate future, the present use may represent the highest and best use of real property. In that case, the highest and best use is determined by the property appraiser's research or analysis. In other cases, the present use of real property is subject to a below-market lease, the highest and best use of the unencumbered fee simple estate is the highest and best use.

Property appraisers are prohibited from speculating when and if any of the limitations referenced in (2) will be removed, or if zoning changes, concurrency requirements, or permit will be allowed. Property appraisers are prohibited from considering potential uses to which a property is reasonably susceptible and to which it might possibly be put in a future tax year. *Lanier v. Overstreet*, 175 So. 2nd 521 (Fla. 1965)

There are four sequential tests for highest and best use considerations.<sup>25</sup> These tests involve consideration of the legally permissible uses, physically possible uses, financially feasible uses, and maximally productive uses within real property groups. Consideration of these four tests is reflected in the property appraiser's annual real property mass appraisal activities. These activities include data collection and management, geographic stratification, exploratory data analysis, application of professionally accepted appraisal practices and appropriate appraisal methodologies, highest and best use considerations, and compliance with current Florida ad valorem tax law. When applied to appraisals for some private sector purposes, the third and fourth tests may involve in-depth market and/or feasibility studies. These studies are beyond the scope of highest and best use considerations required for mass appraisal in accordance with Florida ad valorem tax law.

Highest and best use may shift as a result of changes in zoning and future land use classifications, new subdivisions, improvements to infrastructure, new construction, substantial renovation, demolition, sales, and rentals. These changes may be observed directly through field inspection of real property, or indirectly by reviewing permits, ordinances, and market transactions and tendencies. Mapping these types of changes may

<sup>25</sup> International Association of Assessing Officers, *Property Assessment Valuation, Third Edition* (Kansas City, MO: International Association of Assessing Officers, 2010), pages 29-30.



**6.5.2 Adaptive Estimation Procedure.** Adaptive estimation procedure, also referred to as “feedback,” is another useful mass appraisal tool in the sales comparison approach.<sup>35</sup> Like MRA, this is a highly complex statistical procedure that analyzes the relationships between the property characteristics and sale prices of sold property to develop a mathematical equation to determine the just valuations of groups of real property. Separate feedback models may be developed for residential market areas and other real property groups. The adaptive estimation procedure has requirements, possible limitations, and assumptions like those of MRA.

**6.6 The Income Approach.** The effectiveness of the income capitalization approach in mass appraisal may depend in part on reliable data collection and management, effective exploratory data analysis, good market knowledge, professionally accepted appraisal practices and appropriate appraisal methodologies, and application of mass appraisal quality assurance tools. In its basic applications, the income approach is a set of procedures in which stabilized income from income-producing real property is capitalized into a just value indication by dividing stabilized net operating income by an overall capitalization rate, or by multiplying stabilized gross income by a gross income multiplier (GIM). A buyer of income-producing property exchanges current dollars for the expectation of receiving future dollars. The collection and management of income data and exploratory data analysis are described in section 4.4.8 and 4.7 of these guidelines.

The income approach relies on proper stratification of real property. Stratification criteria may include property use code, location, quality grade, effective age, or size. The appropriate level of stratification may vary based on the number and type of real property parcels involved and the amount of market data available.

As applied in the income approach, units of comparison are the economic units into which the income, operating expenses, or value indications of real property may be divided for analysis. Examples of units of comparison are rent per square foot or expenses per square foot. Selecting the appropriate unit of comparison for income and expenses involves two primary criteria. One is the unit of comparison market participants use most frequently in their decision-making for the property type under analysis, and the other is the unit of comparison resulting in the lowest measures of dispersion in income and operating expense data sets. Before valuation analysis, all income and operating expense data should be reduced to the appropriate unit of comparison.

**6.6.1 Market Rent and Expense Analysis.** Market rent, which is distinct from contract rent, corresponds to the fee simple estate. Contract rent corresponds to the leased fee estate. Therefore, contract rent is irrelevant to real property valuation for ad valorem tax purposes in Florida, unless independent support is available indicating that contract rent is equal to market rent. Market rent may be less than, equal to, or greater than contract rent.

Reliable market rent and expense analysis involves both quantitative and qualitative analyses. After market rent and expense data have been appropriately stratified and compared, useful market rent is the rent a property should bring in a competitive and open market under all conditions requisite to a fair lease transaction. *The Appraisal of Real Estate*, 15th Edition, Appraisal Institute, 2020, p. 421.

**6.6.2 Direct Capitalization.** Direct capitalization is used to convert a single year’s income expectancy into a value indication. This conversion is accomplished in one step, either by dividing the net operating income by an appropriate income rate or by multiplying the gross income estimate by an appropriate factor or multiplier.<sup>36</sup>

The market factors to consider may include:

- 1) The recent income and expense histories of properly stratified real property groups

<sup>35</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), pages 269-271.

<sup>36</sup> Appraisal Institute, *The Appraisal of Real Estate, Fifteenth Edition* (Chicago: Appraisal Institute, 2020), page 459.

is the preferred methodology under the income approach for ad valorem valuations.

- 2) The current trends for income and expenses of properly stratified real property groups
- 3) The market participants' expectations for income and expenses of properly stratified real property groups
- 4) The recent history, current trends, and market participants' expectations for income and expenses of individual properties in properly stratified real property groups
- 5) Commercially available and published reports on the recent history, current trends, and market participants' expectations for income and expenses of property that may be compared to the properly stratified real property groups

An overall capitalization rate, or overall rate, is a number in decimal form that may be divided into net operating income to produce an indication of just value by the income approach.

Direct capitalization is ~~a common, but somewhat complex income approach method~~. To produce credible just valuation using direct capitalization for income producing properties, the property appraiser and valuation staff should have a good working knowledge of the method and understand how to apply it effectively.

**6.6.3 Gross Income Multiplier (GIM).** In this variant of direct capitalization, a value indication may be formed in two ways. One way is to multiply potential gross income by a market-extracted multiplier, or to divide the sale price by potential gross income or effective gross income if they were extracted. Various indicators of GIMs may be used. The GIM method does not explicitly consider operating expenses. When valuing real property with related non-realty items, it is important to remove tangible and intangible property from the analysis. *Singh v. Walt Disney Parks and Resorts US, Inc.*, 325 So 3rd 124, (5th DCA 2020). *Havill v. Scripps Howard Cable Co.*, 742 So. 2nd 210 (Fla. 1998). from which multipliers may be extracted and those of the property groups to which multipliers may be applied should be reasonably consistent.

**6.6.4 Yield Capitalization.** Discounted cash flow analysis is a common variant of yield capitalization, when appropriate. Discounted cash flow analysis is a set of procedures in which a value indication is produced by projecting the future annual net operating income over a typical investment holding period, along with the net proceeds of resale at the end of the holding period, and then discounting these future economic benefits back to the present using an appropriate discount rate. In evaluating the potential use of any yield capitalization method in particular situations, property appraisers must apply professionally accepted appraisal practices and appropriate appraisal methodologies.

This approach is most often used for small residential income producing properties. *The Appraisal of Real Estate*, 15th Edition, Appraisal Institute, 2020, p. 473.

In some cases, Florida courts have rejected property valuations for ad valorem taxation that involve projecting and discounting future economic benefits. A Property Appraiser may not speculate about future economic benefits.

**From:** Bradley Tennant <[bradley.tennant@realadvice.com](mailto:bradley.tennant@realadvice.com)>  
**Sent:** Thursday, April 24, 2025 3:07 PM  
**To:** DORPTO <[DORPTO@floridarevenue.com](mailto:DORPTO@floridarevenue.com)>  
**Cc:** Todd Jones <[todd.jones@realadvice.com](mailto:todd.jones@realadvice.com)>; Jim Zingale <[Jim.Zingale@floridarevenue.com](mailto:Jim.Zingale@floridarevenue.com)>;  
Rene Lewis <[Rene.Lewis@floridarevenue.com](mailto:Rene.Lewis@floridarevenue.com)>; Mark Hamilton  
<[Mark.Hamilton@floridarevenue.com](mailto:Mark.Hamilton@floridarevenue.com)>; Kevin Herzberg <[Kevin.Herzberg@realadvice.com](mailto:Kevin.Herzberg@realadvice.com)>  
**Subject:** Re: Florida Department of Revenue Proposed Rules - Development of Proposed  
Amendments to the Florida Real Property Appraisal Guidelines

**Caution:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Cotton, *et al.*,

Please find attached our revised comments regarding the latest proposed revisions to the Florida Real Property Appraisal Guidelines. We believe our identification of the newly-added language and the legal infirmity it creates should be considered. Thank you.

**Bradley Tennant, Esq. & MSRE** | Managing Director | [RealAdvice](#) | 727-346-8443

Notice: The sender of this email is a licensed attorney in Florida (Board Certified in Real Estate), California, and Texas and represents RealAdvice only. To the extent any advice given is interpreted as legal in nature, such advice is meant solely to effectuate RealAdvice's services and shall not be relied upon by any third party. RealAdvice is not a law firm and does not provide legal services or advice. If you are represented by an attorney in connection with RealAdvice's services, please disregard this email and forward to them immediately.

April 24, 2025

Mike Cotton  
Property Tax Oversight Program  
Florida Department of Revenue  
[DORPTO@floridarevenue.com](mailto:DORPTO@floridarevenue.com)

Cc: Jim Zingale, [jim.zingale@floridarevenue.com](mailto:jim.zingale@floridarevenue.com);  
Rene Lewis, [rene.lewis@floridarevenue.com](mailto:rene.lewis@floridarevenue.com);  
Mark Hamilton, [mark.hamilton@floridarevenue.com](mailto:mark.hamilton@floridarevenue.com)

RE: Comments on the proposed Florida Real Property Appraisal Guidelines revisions

We previously sent a letter, dated April 9, 2024, indicating that, while we believe the changes proposed in the draft guidance document will have a positive effect on the impacted professions, there were several corrections to the draft necessary to comport with Florida law. Unfortunately, it appears that not only were most of these suggestions ignored, but further changes were made that bring this draft further from compliance with state law and USPAP requirements. This is an issue of great public importance as it impacts every taxpayer – and every potential taxpayer – in Florida.

Specifically, there is an addition to § 6.4.1 which states (emphasis added):

“Replacement cost figures should include all direct and indirect costs, including materials, labor, equipment cost, supervision, architect and legal fees, administrative expenses, overhead, and reasonable profit. Properly accounting for indirect costs and entrepreneurial profit requires research.” The two components of profit in replacement cost new RCN are contractor’s profit and entrepreneurial incentive developer’s anticipated profit. Developer’s anticipated profit is sometimes referred to as entrepreneurial incentive. The cost data from published cost manuals may include contractor’s profit, but entrepreneurial incentive developer’s anticipated profit typically is not. However, all determinations of replacement cost new RCN of real property should include both. The two methods of deriving replacement cost new RCN that are commonly applied in mass appraisal are the comparative unit method and the unit-in-place method.”

This addition is plainly contrary to Florida law. Taxable real property, for purposes of assessment, is limited to “land, buildings, fixtures, and all other improvements to land.” (§192.001(12), Fla. Stat.) Profit, on the other hand, is considered to be intangible personal property (§192.001(11)(b), Fla. Stat.), and is not subject to property taxes pursuant to the Florida Constitution (“Counties, school districts, and municipalities shall, and special districts may, be authorized by law to levy ad valorem taxes ... except ad valorem taxes on intangible personal property and taxes prohibited by this constitution” Art. VII, § 9(a), Fla. Const. (emphasis added)). The application in the instant matter is best set forth in *Singh v. Walt Disney Parks and Resorts US, Inc.*, 325 So.3d 124 (Fla. 5<sup>th</sup> DCA, 2020). In *Singh*, the court specifically disallowed the “Rushmore method” used by the county assessor as it improperly included intangible value, including profit. (*id.* at 132). An assessor including profit (either contractor and entrepreneurial) in the assessed value would plainly be in violation of the Florida Constitution and other applicable law. Sufficing to say, these guidelines cannot whole cloth change what is taxable in Florida – only a constitutional amendment can.

This difference is further illustrated by instances in which such profit is anything outside the norm. For example, a vertically integrated home builder who makes money on selling land or a homeowner doing their own work do not make profit on the construction. Many builders profit only by virtue of the sale – i.e., the value of the land – and adding



profit on the construction side via replacement cost method essentially double dips to increase an assessment beyond the just value. An assessor including profit in such valuation would be taxing something that simply does not exist. These guidelines, by including profit, would be giving credence to government officials to violate the constitutional rights of all property owners in Florida.

It is also worth noting that building permits and other public filings related to construction may include profit in their calculated values. Such public documents are easy and attractive for assessors to use as evidence for a just value, but they are based on a separate legal standard. Permits are inexorably tied to the contracts, not the real property, by virtue of their relationship to construction lien law, Chapter 713, Fla. Stat.. Simply put, contractors can recover based on contract value, which includes intangible profit. But just as contracts and property are entirely different legal topics, so too are their conceptualization of definitions and “value.” As noted above, including profit in assessed value is contrary to Florida law. Including profit in a contract is expected, and that “benefit of the bargain” cannot change how the state defines the physical property.

We will also point out that “profit” is not escaping state taxation by being exempt from ad valorem taxes. Builders and contractors are subject to sales and use taxes (and often corporate income and employment-related taxes) in addition to various government fees related to their work. Even local governments can add discretionary surtaxes to address local needs.

Finally, provided below are our prior, limited comments. Please note that a few of the comments were accepted in the latest draft and have now been removed from this letter.

**Section 1.1:** This section alters the citations relative to the property appraiser’s duties. While this improves readability, it no longer includes the caveat in the prior version relative to exceptions. While a thorough debriefing of all exceptions or limitations is unnecessary, we believe it is important to reference that they at least exist. Some, such as the limitation on levying ad valorem taxes contained in Fla. Const. Art. VII Sec. 9(a) (“except ad valorem taxes on intangible personal property and taxes prohibited by this constitution.”), have been getting increasing focus in recent years. We believe adding back in the phrase “with certain exceptions” would help signal to the assessors that their responsibilities in valuing property are not only granted, but also limited by statutory and constitutional law. Neglecting to address this will guarantee unnecessary conflicts in the proper administration of property taxation.

**Section 4.4.8:** This section alters the guidance relative to obtaining information relative to the income approach assessors utilize. One change, replacing “market rent” with “rent income”, will unnecessarily confuse assessors regarding the proper execution of their duties. Specifically, the law in Florida is that the assessment should represent “the fair market value of the unencumbered fee...” *Schultz v. TM Florida-Ohio Realty Ltd. Partnership*, 577 So.2d 573 (Fla. 1991). The issue with the language, as altered, is that it implies a leased fee analysis by connecting the “rent income” (i.e., contract rent vs. market rent) – which seems to be property specific – with the determination of value. We urge you to use the term “market rent” as it is the more accurate and legally appropriate terminology for this paragraph.

**Section 6.1:** This section explains what highest and best use is. While generally a great addition, the last sentence of the second paragraph - which has been deleted in the latest version - gives an example of a “below-market lease” impacting a property. Conceptually, it is the correct answer, but the example given presents a representation of a leased-fee versus fee-simple distinction instead of an example of highest and best use. A better example that more accurately tracks the paragraph might be: “For example, if a standalone grocery store is located in a zoning district that permits high density residential use, and market factors support adequate demand for new development, and the factors in FS193.011(2) are properly considered, the present use should be disregarded since it is not the highest and best use of the unencumbered fee simple estate.”



**Section 13.8:** This section deals with adjustments in the cost approach (and is incorporated into a previous section). The second sentence references that “contractors’ profit is typically included in published cost manuals, but developer’s anticipated profit typically is not. However, all determination of RCN of real property should include both.” The proper phrase we recommend is “developer’s incentive”. To put a finer point on it, a developer’s anticipated profit could vary wildly based on many factors that are not relevant to the appraisal for assessment purposes – i.e., they got a good deal on concrete. The broader term of “incentive” recognizes that a development would not occur if not for a benefit to the developer but is an objective term that is more appropriate for valuing something that would be unknown and inappropriate to directly consider for an appraisal. At issue is the phrase “anticipated profit” which is a specific reference to an intangible asset that should not be included in an appraisal for ad valorem purposes under Florida law, as that element is exempt.

We hope you consider these suggestions in your next revision. Leaving the draft “as is” would be both unconstitutional and result in increased litigation for the Florida Department of Revenue and Florida taxpayers. Thank you.

Sincerely,

Todd Jones, MBA, MAI, AI-GRS, CRE, FRICS

Bradley S. Tennant, Esq., MBA  
Board Certified in Real Estate Law

Kevin Herzberg, MBA, CPA, CGMA

**From:** [Mrs. Sheila Anderson](#)  
**To:** [DORPTO](#)  
**Cc:** [Mark Hamilton](#); [Steve Keller](#)  
**Subject:** Regarding proposed draft 2 of 12D-51.003, F.A.C.  
**Date:** Tuesday, May 13, 2025 4:08:40 PM  
**Attachments:** [article Leased Fee vs Fee Simple Valuation \(2\).pdf](#)  
[dor pto real property guidelines draft 2 4.24.2015.doc](#)  
[dor APTC Response to IAAO May 2019 Exposure Draft fee simple.doc](#)  
[cvs article Entrepreneurial profit an evolving concept that must be applied with great care 2003.pdf](#)  
[dor Administrative procedure act and taxation.pdf](#)  
[cvs lennhoff's course.doc](#)

---

**Caution:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please see the attached.

TO: Florida DOR/PTO

FROM: Sheila Anderson

DATE: May 13, 2025

REF.: 12D-51.002, F.A.C.

DRAFT 2

COMMENTS and CONCERNS

Comments below which are underlined are suggested for insertion. Comments below which are ~~crossed through~~ are suggested for deletion.

1 No names are provided to enable private citizens, for whom PTO works (see S. 112.311(6) ), to know who worked on this Draft. Prior to the adoption of the currently enacted version of 12D-51.002, F.A.C., there were many attempts by property appraisers and consultants (the property appraisers allegedly engaged) to submit content which – I and another private citizen were told directly by the then property appraiser in Alachua County in the presence of a DOR employee – would favor property appraisers in appeals and in litigation. In addition, during that same prior period a national retailer’s property tax representative called me from North Carolina to say a consultant employed by property appraisers was working on their version of a draft. That effort was also stopped. BUT, the absence of names of authors of the current draft(s) suggest similar unethical behavior might be involved. **See attached: “APTC Response to IAAO May 2019 Exposure Draft: Setting the Record Straight on Fee Simple”. Of specific relevance are the contents related to unethical conduct.**

2 1.1 Overview and Specific Authority. Section 4, Article VII, of the Florida Constitution requires a just valuation of all real property for ad valorem taxation. Section 195.002(1), Florida Statutes (F.S.), identifies the Florida Department of Revenue (Department) as a state administrative agency, headed by the Governor and Cabinet members, with the statutory responsibility of general supervision of the assessment and valuation of property, and the administration and collection of property taxes. The Department’s supervision is necessary to ensure all property is placed on the tax rolls and valued in accordance with the requirements of the United States constitution and state constitution in order to achieve uniformity within each tax roll, pursuant to s.195.0012, F.S.

...

Property Appraisers **appraisers** have the statutory responsibility to list and appraise all real property in their respective county each year for purposes of ad valorem taxation, as stated in ss. 192.011 and 193.085(1), F.S. pursuant to the criteria in s. 193.011, F.S. and in compliance with s. 194.301, F.S. and s. 194.3015, F.S.

1.3 Purposes of These Guidelines. These Real Property Appraisal Guidelines have ~~three~~ four primary purposes:

4) To provide Value Adjustment Board’s ~~and~~ special magistrates, and petitioners the relevant guidelines for ascertaining whether any assessment complies with governing law.

1.4 Context of These Guidelines. Section 195.062(1), F.S., dictates these guidelines do not have the force and effect of rules, however nevertheless are part of the Florida Administrative Code (F.A.C) and represent laws governing assessments. As such, In that context, these guidelines do not function as the complete reference source on any of the following or similar subjects: valuation theory, approaches, methods, or procedures; assessment administration; or applicable provisions of Florida ad valorem tax law, manual of instructions, or regulatory requirements. In accordance with the limitations imposed by s. 195.062(1), F.S., these guidelines do not constitute a determinative legal standard for the valuation of real property. The statutory valuation legal standards are described in further detail in s. 194.301, F.S., 194.3015, F.S., and sections 2.1 and 2.2 of these guidelines.

...

These sources ~~should~~ must not conflict with current Florida ad valorem tax law.

2.1 ... Section 193.011, F.S., requires the property appraiser to consider properly each of these eight criteria.

...

In addition to the eight statutory criteria for the derivation of just value, there are four determinative legal standards for appraisal development and reporting for the purpose of ad valorem taxation in Florida. Those determinative standards are described in ss. 194.301 and 194.3015, F.S. The standards are:



1) Compliance with professionally accepted appraisal practices consistent with Florida law.

...

Property appraisers ~~should~~ **are required to** be aware that ss. 194.301 and 194.3015, F.S., make clear the Florida Legislature's intent to supersede contradicting case law. Specifically, s. 194.301(1), F.S., states: "The provisions of this subsection preempt any prior case law that is inconsistent with this subsection" and s. 194.3015(1), F.S., provides: "... any cases published since 1997 citing the every-reasonable-hypothesis standard **and range of values** are expressly rejected to the extent that they are interpretative of legislative intent." ...

3.3 Identification of Real Property. The first step in the valuation process is to identify the real property, as defined by s. 192.001(12), F.S., to be assessed. Just valuations should exclude personal property and exclude intangible property, as defined in s.192.001(11), F.S. and 192.001(11b), F.S.

...

The NAL has 92 data fields **which do not include zoning codes, nor building values, nor net operating income, nor capitalization rates, nor the % applied per 193.011(8).**

...

**3.4** Property Inspection. Section 193.023(2), F.S., requires property appraisers to inspect real property every five years. This statute allows property appraisers to use image technology in lieu of physical inspection where geographically suitable **and accurate enough to clearly identify exterior condition.**

...

Examples of physical data include improvement type and size, parcel size, **building size**, and neighborhood. Examples of economic data include costs, sale prices, **values**, **market** rents, and **landlord's** operating expenses.

4.3 General Data. General data useful for the real property mass appraisal process may include: articles from local news publications, economic reports, planning information, and real property market reports. These sources may contain information such as: • Proposed developments • Proposed changes in zoning or land uses • Demolitions of real property • Real property **market** rentals, vacancies, listings, and sales • Information on **market** real property expenses • Market and neighborhood trends • Market participants' perceptions, expectations, and preferences.

4.4.6 Cost data should be current **as of January 1<sup>st</sup> of the assessment year** and include all direct and indirect costs of construction, including reasonable contractor's profit and entrepreneurial developer's profit **See attached: Journal of Property Valuation and Taxation, "Entrepreneurial Profit" An Evolving Concept That Must Be Applied With Great Care". Winter 2003.**

4.4.8 Income Data. Income **Current actual income data is necessary** **CONTRADICTS**

**UNENCUMBERED FEE SIMPLE" AND 195.0012, F.S. for the property appraiser to derive market -based indicators for the unencumbered fee simple** income approach (see section 6.6.1 of these guidelines). ~~"Rents negotiated near the valuation date best reflect current market rents."~~ **17-SEE ATTACHED APTC Response to IAAO MAY 2019!** This data may include rent income, vacancy and collection loss, operating expenses, capitalization rates, and income multipliers. ~~Commercial property owners and managers~~ **Published local and regional brokerage market reports** are good sources for rent income, vacancy and collection rates, and operating expenses. Property appraisers should actively solicit this information through direct contact and surveys **of brokerage organizations and publications**. The collection of capitalization rates and income multipliers generally requires research and verification of sales of income producing property. Cooperative responses from ~~property owners and their agents~~ are essential to the **uniform**, equitable and fair administration of ad valorem property tax for all taxpayers. Property appraisers and the Department must keep certain types of information from property owners **confidential if necessary to be acquired at all and should not be used for Value Adjustment Board hearings.**

...

**Section 195.027(3)**, F.S., states in part: “The property appraiser, the Department of Revenue, and the Auditor General shall be able to obtain access, **where necessary**, to financial records relating to non-homestead property which records are required to make a determination of the proper assessment as to the particular property in question. Access to a taxpayer’s records shall be **provided only in those instances in which it is determined that such records are necessary** to determine either the classification or the value of the taxable non-homestead property. Access shall be provided only to those records which pertain to the property physically located in the taxing county as of January 1 of each year and to the income from such property generated in the taxing county for the year in which a proper assessment is made. All records produced by the taxpayer under this subsection shall be deemed to be confidential in the hands of the property appraiser, the department, the tax collector, and the Auditor General and shall not be divulged to any person, firm, or corporation, except upon court order or order of an administrative body having quasi-judicial powers in ad valorem tax matters, and such records are exempt from the provisions of s. 119.07(1).” **NOTE – “NECESSARY” should mean ONLY IF MARKET INFORMATION IS NOT AVAILABLE FROM PUBLIC SOURCES. AND UNENCUMBERED FEE SIMPLE IN PRACTICAL TERMS MEANS either owner occupied or a “gross lease”. In turn, “gross lease” means landlord/owner pays all operating expenses. Otherwise, you are dealing with “leased fee” and “leased fee” is NOT “unencumbered fee simple”.**

SMA/d

Attached:

- 1 APTC Response to IAAO May 2019 Exposure Draft: Setting the Record Straight on Fee Simple
- 2 “Entrepreneurial Profit: An Evolving Concept That Must Be Applied With Great Care”, citing the Appraisal Institute: The Appraisal of Real Estate
- 3 “Leased Fee vs. Fee Simple Valuation” by Michael J. Kelly, MAI, SRPA at the Institute for Professionals in Taxation and ABA Section of Taxation Advanced Property Tax Seminar
- 4 “Fundamentals of Separating Real Property, Personal Property, and Intangible Business Assets”, table of contents presented on behalf of the Appraisal Institute
- 5 AGO 76-123 – “Administrative Procedure Act and Taxation to J. Ed Straughn, Executive Director, Department of Revenue, Prepared by Joseph C. Mellichamp III, Assistant Attorney General

###

## **APTC Response to IAAO May 2019 Exposure Draft: Setting the Record Straight on Fee Simple**

Jun 16 Posted by [American Property Tax Counsel](#) in [APTC Announcements](#)

June 13, 2019

Board of Directors IAAO  
IAAO Headquarters 314 West 10th Street  
Kansas City, Missouri 64105

### **Re: IAAO May 2019 Exposure Draft: *Setting the Record Straight on Fee Simple***

Dear Board Members:

American Property Tax Counsel is the preeminent organization of real estate tax attorneys in North America. Please accept this letter as our official comments in response to the May 2019 Exposure Draft entitled *Setting the Record Straight on Fee Simple* promulgated by the IAAO Fee Simple Task Force. Consistent with our professional focus, these comments will address property tax policy and the legal implications of the Exposure Draft. As attorneys, our concern is the accuracy of the legal arguments advanced in the paper. The starting point is to ask the question, "why would the assessor's organization attempt to write a paper addressing legal theory and not one on appraisal methodology?" The paper appears to be nothing more than an attempt to support new legal/appraisal theories to gain an advantage in pending litigation and to shape public opinion to support a new way of valuing and taxing commercial properties.

#### **1.The Exposure Draft Advocates for Uneven Assessments Over Sound Tax Policy**

This Exposure Draft reads like a solution in search of a problem. The Fee Simple Task Force has done little to disguise the Exposure Draft as anything but an attempt to tax certain commercial taxpayers differently than all other taxpayers. While perhaps intended as primarily a public relations vehicle, the Exposure Draft undermines the credibility of the IAAO as an organization purportedly dedicated to education and research, and its official adoption would do a disservice to the IAAO's respected assessors.[\[1\]](#)

Sound tax policy requires common ground and uniformity. As recognized in the Exposure Draft, fee simple estate is the foundation of what assessors are often asked to measure. However, while the Draft's authors posit a false premise that "it is essential to clarify fee simple in order to maintain accuracy, consistency, and **uniformity** in assessment practices," the truth is fee simple requires no further clarification. The most glaring flaw in the Exposure Draft is the unchecked presumption there is some conflict or digression between how the legal and appraisal professions define fee simple. There isn't.[\[2\]](#)

Context matters, and many terms can differ from the legal to the technical or industrial uses. Liabilities in accounting, for instance, can mean short-term or long-term payables. Within the law, a liability in an income tax dispute is understood to mean something different than a liability in a tort case. Similarly, title companies will speak of a fee simple estate or fee simple title and understand that it describes how title will pass to heirs. Appraisers, being in the profession of valuation, must define and communicate how fee simple impacts an asset's value.<sup>[3]</sup> Even within the legal environment, fee simple can mean that property passes as an inheritable estate in the context of a will, or that a fee simple interest in property is to be valued in the context of assessment or eminent domain. While the phrase "fee simple" can have different implications depending upon the setting in which it is invoked, there is no conflict between the legal and appraisal definitions—in any setting, it is understood to describe the "largest possible estate," "absolute ownership," "broadest interest," and so on. No experienced lawyer or judge is confused by whether "fee simple" in the assessment context invokes questions of inheritability.

States vary somewhat in the terminology used to describe the measure of assessed property, using phrases like "true value," "fair cash value," "actual value," etc., but such phrases are generally understood to mean fair market value. As to what must be assessed, states overwhelmingly agree that the taxable estate should be fee simple. Fee simple is important as a base because the fundamental aspect of assessment in most states is uniform treatment of taxpayers within a class. Some states treat residential, agricultural, and commercial/industrial property as different classes. In other states, all real estate is considered one class. Regardless, the measure of the tax must be the same across the class, and the object being measured must also be the same across the class. Where uniformity is required, one taxpayer cannot be assessed on a fee simple with no lease while a neighbor pays taxes on the fee simple subject to a lease.<sup>[4]</sup> And in law, the unencumbered fee simple is the only standard that returns uniform assessments.

## **2.The Definition of Fee Simple Is Already Clear**

The Exposure Draft's authors make much ado about the historical evolution of the definition of fee simple but fail to consider the modern evolution of real estate as a tradeable asset. Again, it is worth noting why context is important. Real estate was not a particularly sophisticated investment until the advent of modern financing arrangements, sale-leaseback transactions, and the trading of leases as investment vehicles. As the real estate industry grew increasingly complex, it became necessary for its definitions to get specific. Similarly, the accountants among APTC's membership have observed that the accounting profession and the federal courts interpreting the Internal Revenue Code were also compelled in the early-1980s to address the growing prevalence of sale-leaseback transactions.

The Task Force argues that practitioners are confused by the word "unencumbered," yet the only cases it cites are not even on point. As a matter of law, the Ohio cases in the Exposure Draft have been superseded by the enactment of that state's amended assessment code. Contrary to the Task Force's interpretation, those cases stood for the fact that the prior statute required valuation based on a property's recent sale price even when the sale price reflected atypical circumstances or included the value of non-realty assets. The change in the statute eliminated that issue, as Ohio now mandates that assessors value the fair market value of "the fee simple estate **as if unencumbered**." R.C. 5713.03, as amended by 2012 Am. Sub. H.B. No. 487 (emphasis supplied to indicate new words added).<sup>[5]</sup> As for the 9<sup>th</sup> Circuit case cited in the Exposure Draft, it is unclear what the Task Force means to suggest by its partial quotations.<sup>[6]</sup> The rest of the cited paragraph actually recognizes that a freehold estate can be "encumbered or unencumbered," and nothing in the full text of that case indicates the court is confused by that premise or by the definitions it discusses. *City of Los Angeles v. San Pedro Boat Works*, 635 F.3d 440, 450 (9th Cir. 2011).

As a practical matter, several states have approvingly cited (and sometimes even adopted <sup>[7]</sup>) the Appraisal Institute's definitions of fee simple and leased fee. In those jurisdictions which have explicitly relied on the recent editions of *The Appraisal of Real Estate* and/or *The Dictionary of Real Estate Appraisal* to explain these concepts, this Exposure Draft would directly conflict with applicable law. And even in states which have not adopted those definitions, most appraisers have been using the Appraisal Institute's definition of fee simple for over 35 years at minimum. No industry or professional association can force upon a state a definition which conflicts with existing laws, and the IAAO should take care not to encourage its members to violate the rules of their jurisdictions.

### **3.The Bundle of Sticks Endures Because It Is a Useful Metaphor**

The example of the bundle of sticks is almost sacrosanct. As a technical matter, the statement, "The bundle of rights or bundle of sticks metaphor originated as a description of real estate, not a fee simple absolute estate" is incorrect. While legal historians debate the origin and evolution of the bundle metaphor, there is consensus it came into common usage around the turn of the 19th century to describe ideas of ownership and rights in property, both real and personal. The fact that the bundle metaphor may be misused or misunderstood by some does not necessitate its abandonment or overhaul. As a descriptive tool, it helps most students and practitioners to visualize the interplay between the interests and the encumbrances that impact property rights and affect value.

### **4. Fee Simple Unencumbered Is the Basis for All Property Tax Liens**

It should go without saying, but the value on which the property tax is determined should match the basis for the property tax lien to which it is attached. In every jurisdiction, property tax is a liability of the property, not the owner. When any property is valued for tax purposes, the resulting assessment gives rise to a tax lien that attaches to that property. This *in rem* obligation means that if the tax is not paid, the lien can be sold for the unpaid taxes. If the owner fails to take steps to satisfy the lien, the purchaser of the tax lien can become the owner of the property. These basic principles underlie every assessment of property tax.

However, the position in the Exposure Draft would cause a valuation of assets that the tax lien does not attach to. When a tax lien is sold, it is sold free and clear of all other liens and encumbrances. The buyer receives title known as "fee simple absolute." That title does **not** include any liability on a mortgage or any liability (or benefit) arising from a lease. None of those private, contractual rights are part of the lien. Leases and encumbrances are expressly made subordinate to the tax lien. This is because the entire premise of the property tax is that the government can seize and sell "the property" to satisfy the tax lien.

How then, can the value on which the property tax is computed include assets that the tax lien does not attach to? The answer is obvious – it cannot. Respectfully, the position in the Exposure Draft contravenes this basic principle of *ad valorem* taxation, further demonstrating why that position is incorrect as a matter of property tax law.

#### **5.The paper raises ethical issues that need to be properly addressed.**

The IAAO Code of Ethics raises many concerns relative to the paper. For instance, the Code provides:

"It is unethical for members to conduct their professional duties in a manner that could reasonably be expected to create the appearance of impropriety ...

It is unethical to perform any appraisal, assessment, or consulting service that is not in compliance with the IAAO governing documents or the *Uniform Standards of Professional Appraisal Practice* ...

It is unethical for members to accept an appraisal or assessment-related assignment that can reasonably be construed as being in conflict with their responsibility to their jurisdiction, employer, or client, or in which they have an unrevealed personal interest or bias ...

It is unethical to accept an assignment or responsibility in which there is a personal interest without full disclosure of that interest ...

It is unethical to accept an assignment or participate in an activity where a conflict of interest exists and could be perceived as a bias, or impair objectivity ...

It is unethical to knowingly fail to observe the requirements of the *Uniform Standards of Professional Appraisal Practice ...*"

There are pending cases across the country on this very issue, including many in the home states of the authors of this report and members of the Board of Directors. This paper imbeds the IAAO into pending litigation with no acknowledgment of that in the report. The report is silent on the pending matters where one or more authors are a party or are expert witnesses. The paper should not be silent on the conflicts of interest of the authors, the Board of Directors and the organization.

Given its significant authoritative status in the appraisal industry, all appraisers are encouraged to follow the standards in the Appraisal Institute's treatise, *The Appraisal of Real Estate*. Advocating to specifically reject the definitions in the Appraisal of Real Estate, 14<sup>th</sup> edition, the Dictionary of Real Estate Appraisal, 6<sup>th</sup> ed., and local law is antithetical to the IAAO's mission and responsibilities to their membership.

## **6. Conclusion**

As with the IAAO's 2017 white paper on Commercial Big Box Retail, the Fee Simple Task Force is attempting to legislate through its latest paper, without regard to the nuances in each jurisdiction. Fortunately, under the constitutions of nearly all states, the fundamental aspect of assessment is uniformity and the ideas expressed in the Exposure Draft are legally untenable.

The constitutional mandate of uniformity requires that real estate be assessed upon the fee simple, *unencumbered*, because that is the only definition applicable to *all* real estate. Office buildings that are leased can be assessed based on fee simple, unencumbered. Single-family homes that are owned can be assessed upon that same standard. Properties held as tenants-in-common can be assessed upon that same standard. Without this "white canvas" standard, assessors would be left with no basis on which to comply with uniformity requirements.

The paper raises issues of ethics, USPAP compliance and creates confusion even within the publications of the IAAO[\[8\]](#).

We urge the IAAO reject the adoption of the May 2019 Exposure Draft *Setting the Record Straight on Fee Simple*.

Respectfully submitted,

American Property Tax Counsel

BY: Linda Terrill, President

[1] The Exposure Draft's authors are all involved in litigation concerning this issue. Indeed, several are serving as expert witnesses for taxing authorities advocating for the position set forth in the Exposure Draft. Given USPAP's clear prohibition against "Advocacy" by appraisers, the IAAO should not be taking sides in this manner. The paper gives the appearance of "creating" supporting authority because none exists.

[2] Unfortunately, the Exposure Draft's authors fail to cite any authoritative legal definitions of fee simple, relying instead on references to secondary sources. While seemingly obvious, we feel it is necessary to point out that *Black's Law Dictionary* is binding nowhere. Similarly, although the Restatements are generally more respected, they are likewise nonbinding except in the limited jurisdictions where limited sections have been adopted. Moreover, it is unclear why the Task Force cites to an **outdated Restatement**.

[3] Brokers and agents may use the term loosely or even incorrectly, but that is not a reason for the appraisal or assessment professions to change a long-accepted definition.

[4] Beyond the problem of non-uniformity, because most states recognize contracts as personal property, such a framework seems doubly unworkable in states where personal property is not taxable.

[5] Importantly, the Ohio cases cited were in large part the basis for the legislative clarification.

[6] The Task Force fails to discuss California's property tax regulations pertaining to fee simple, such as the inclusion of "unencumbered or unrestricted fee simple interest" in the definition of fair market value, the adjustment of the sale price for a property encumbered with a lease to its unencumbered-fee price, and the capitalization of unencumbered net income in the application of the income approach.(18 Calif. Code of Regs., §§ 2(a), 4(b)(2) and 8(d).)The *City of San Pedro* case does not discuss any of these property tax regulations.

[7] See, for example, *In re Equalization Appeal of Prieb Properties*, 47 Kan. App. 122, 275 P. 3d 56 (2012).The IAAO cannot advocate for its members to adopt a definition and value real property in violation of their law.

[8] The positions set forth by the taskforce are inconsistent with other IAAO publications below:

Page 12, *Property Assessment Valuation* 3 ed., starts with a paragraph titled **Fee Simple Interest**. "The owner of a fee simple absolute interest holds the title to the property free and clear of all encumbrances. **The assessor typically values property as an estate in fee simple, unless statutes or administrative rules dictate otherwise.** The **bundle of sticks** example, as well as the acronym SLUGGER stating how the rights in the bundle can be bargained away, is located at page 10, *Property Assessment Valuation* 3 ed.



At page 11 **leases are described as being private encumbrances** able to affect fee simple ownership of property. *Property Assessment Valuation*, 3 ed.

Again, at page 11 both **Leased Fee** and **Fee Simple** interests are discussed and the caution that "before a property is valued, the appraiser must know which interests are to be valued." **Absolute Ownership**—Ownership of all real property rights and interests in a real estate parcel. See **fee simple**. P. 1, *IAAO Glossary for Appraisal and Assessment*, 2d ed. **Fee Simple**—In land ownership, complete interest in a property, subject only to governmental powers such as eminent domain. Also fee simple absolute. See **estate in fee simple; fee; and absolute ownership**. Page 67, *IAAO Glossary for Appraisal and Assessment*, 2d ed.

Tags:

[Linda Terrill](#)

# Entrepreneurial Profit: An Evolving Concept That Must Be Applied With Great Care

By John H. Davis, III, and Kirk W. Weinert

When using the cost approach to appraise real property, an incremental value adjustment to reflect entrepreneurial profit may be considered. Since 1983, this concept has been discussed in *The Appraisal of Real Estate* and *The Dictionary of Real Estate Appraisal*, both published by the Appraisal Institute. Over time, the concept has been continuously clarified and redefined in these publications, reflecting both its evolution and its misapplication in certain circumstances. This article seeks to trace this evolution and to caution against use of the concept beyond the parameters in which it now finds acceptance in these appraisal texts.

## Brief Review of Concept

### *The Appraisal of Real Estate*, Eighth Edition

The concept was first mentioned in the Eighth Edition of *The Appraisal of Real Estate* published in 1983. The text suggests that entrepreneurial profit must be considered in the cost approach in addition to the direct and indirect improvement costs. "Entrepreneurial profit" is defined as the return that the entrepreneur (who may also be the developer) expects to receive in developing the project. Entrepreneurial profit should be a market derived figure but can sometimes be measured by the difference between the sale price of the property and a cost approach that excludes entrepreneurial profit.<sup>1</sup>

### *The Appraisal of Real Estate*, Ninth Edition

In the Ninth Edition, published in 1987, entrepreneurial profit is discussed in more detail. Here, it is clearly attributed to the developer: "This (entrepreneurial profit) is also known as *developer's profit*."<sup>2</sup> The text makes clear that such profit can be positive or negative. Also, cost-estimating services generally do not include entrepreneurial profit, so one must go to the market to determine the appropriate adjustment. The test for the existence of entrepreneurial profit is whether the total cost of the project, without entrepreneurial profit, is less than the market value of the completed project. Note that if the market value of the completed project is less than the total cost of the project, entrepreneurial profit is negative.<sup>3</sup>

### *The Appraisal of Real Estate*, Tenth Edition

The Tenth Edition was published in 1992. It appears that the terms entrepreneurial profit and developer's fee are used interchangeably.<sup>4</sup> Chapter 15, in a detailed footnote, makes a clear distinction between entrepreneurial profit (what profit, if any, the entrepreneur receives following completion of the project), entrepreneurial incentive (before the completion of the project, the profit the entrepreneur expects to receive), and the developer's fee or profit (a fee for the developer's services as distinct from the entrepreneur).<sup>5</sup> All of these concepts are defined and differentiated. It is

1. Appraisal Institute, *The Appraisal of Real Estate* 454-455 (8th ed. 1983).

2. Appraisal Institute, *The Appraisal of Real Estate* 353 (9th ed. 1987).

3. *Id.* at 373.

4. Appraisal Institute, *The Appraisal of Real Estate* 319-320 (10th ed. 1992).

5. *Id.* at 327.

suggested that the appraiser distinguish between these concepts in the appraisal report to avoid confusion or double counting. This edition continues to emphasize that all of these concepts and their inclusion in an appraisal report should be based upon market data.

### *The Dictionary of Real Estate Appraisal, Third Edition*

The Third Edition was published in 1993 and is the latest edition. It states that developer's fee is sometimes used interchangeably with entrepreneurial profit.<sup>6</sup> An entrepreneur is defined as "a promoter who initiates development." In defining entrepreneurial profit, a distinction is drawn between entrepreneurial profit and developer's fee.<sup>7</sup>

### *The Appraisal of Real Estate, Eleventh Edition<sup>8</sup>*

In this edition, which was published in 1996, a much more detailed explanation of entrepreneurial profit, entrepreneurial incentive, and developer's fee appears. The confusion that existed, particularly the view that these terms might be used interchangeably, has been eliminated. There is no longer any doubt that all of these terms stand for specific concepts that are not interchangeable. In addition, this edition clarifies that entrepreneurial profit should not be estimated only by determining the difference between the sale price of the property and the sum of direct costs, indirect costs and the developer's fee. In a successful development, this difference must be tested for reasonableness. Entrepreneurial profit, if it occurs, usually falls within a reasonable range stated as a percentage or dollar amount. This range may vary and cannot be assumed to be constant. If an excessive return above this reasonable range is determined, usually by interviews with entrepreneurs or upon analysis of actual past returns, the excessive return cannot be attributed solely to entrepreneurial profit. This is particularly true when a significant amount of time has passed between completion of the project and the sale of the project, allowing external changes in market conditions to obscure applica-

tion of the concept. Similarly, projects that are owner-built and owner-occupied present the appraiser with further complications when attempting to measure entrepreneurial profit. If an owner-occupier performs the function of the entrepreneur, his or her contribution may be intangible. Other problem areas in determining entrepreneurial profit are also mentioned.

### *The Appraisal of Real Estate, Twelfth Edition<sup>9</sup>*

Published in 2001, some additional clarifications are noted in this edition. Contractor's profit is defined separately. It should clearly be included in the project's overhead and is not part of entrepreneurial profit. The total cost of a project, before consideration of entrepreneurial profit, includes total cost of development, including contractor's profit, plus marketing costs. Again, caution is advised in assuming that the difference between the selling price and the total cost of a project is attributable to entrepreneurial profit, especially when there is a significant time lag between construction and the sale. The problem of estimating entrepreneurial profit in owner-built and owner-occupied projects is not directly addressed.

## Evolution of Concept

It is clear from the above references that entrepreneurial profit is an evolving concept. As more thought has been brought to bear, additional terms have been introduced to distinguish between entrepreneurial profit and other similar concepts. It has become clear that entrepreneurial profit is not to be confused with contractor's profit, developer's fees, or marketing costs. In addition, it is clear that there is a reasonable range for entrepreneurial profit. A simple subtraction from the market price of the sum of direct costs, indirect costs, contractor's profit, developer's fee, and marketing costs may not be indicative of entrepreneurial profit. Time lag between construction and sale of the property, as well as owner-built and owner-occupied projects, increase the difficulty of determining the existence, if any, of entrepreneurial profit.

6. Appraisal Institute, *The Dictionary of Real Estate Appraisal* 98 (3rd ed. 1993).

7. *Id.* at 117-118.

8. Appraisal Institute, *The Appraisal of Real Estate* (11th ed. 1996).

9. Appraisal Institute, *The Appraisal of Real Estate* (12th ed. 2001).

## Clarification of Owner-Built and Owner-Occupied Property

The only issue in valuing owner-built and owner-occupied property should be the lack of a sale. Assume that two identical properties are built at the same time. The costs to build are the same and, again, they are identical in all respects. The only difference is that one property is built to sell and the other is owner-built and owner-occupied. Should they have the same fair market value? Yes. Does that mean that entrepreneurial profit exists? No. One has to test the market to determine if such profit exists and, if so, how much. Therefore, it does not matter whether the property is owner-built and owner-occupied. The market should dictate fair market value and whether entrepreneurial profit exists. Therefore, owner-built and owner-occupied property should be valued utilizing the same methodology as other comparable property. In either case, with property typically built to sell or owner-built and owner-occupied property the existence of entrepreneurial profit must be substantiated with market data.

## Entrepreneurial Profit and Property Not Typically Sold

Some types of property are the type built to be sold (i.e., whether they are owner-built and owner-occupied or not). An office building built and occupied by its owner may not be sold but it is typical of the type of property that is built and sold. Conversely, some owner-built and owner-occupied property is not the type customarily built for resale. An example would be an interstate natural gas pipeline which is built to operate, hopefully at a profit, but not to resell. Sales of such property are few and far between. The entrepreneur in this case is attempting to make a profit on net operating income by operating the property, not in selling it. Interstate natural gas pipelines are typically rate regulated; that is, the net operating income generated from the operation of the property which compensates the debt and equity holders is regulated. If there is excessive net operating income, it is possible the regulators will require a rate reduction. The return allowed for debt and equity holders does not include a component for entrepreneurial

profit. Therefore, to include a component in the cost approach for entrepreneurial profit would be erroneous.

## Attempting to Quantify Entrepreneurial Profit

Again, the appraisal publications state that any such adjustment should be based upon market data. The question then becomes what represents market data. One suggestion for determining entrepreneurial profit is to compare a company's hurdle rate and cost of capital. A hurdle rate is a rate of return that a company, on a companywide basis or a project basis, seeks to obtain when building a project. A company's hurdle rate may differ from its cost of capital. The cost of capital is usually based upon the company's or project's cost of capital (i.e., the cost of debt and equity funds utilized in the project). The idea is to make sure that the project earns an adequate return to compensate for the cost of debt and equity funds. Typically, free cash flows from the project are discounted to present value with this weighted average cost of capital to determine if the project is feasible.

In this analysis, the cost of capital is a break-even rate of return. That is, if the project returns exactly the cost of capital, the project exactly recovers its cost of debt and equity. If the project earns less than its cost of capital, it adversely affects the profitability of the company. If the project earns more than its cost of capital, the profitability of the company increases.

It has been suggested that the difference between a company's hurdle rate and its cost of capital is indicative of entrepreneurial profit. This logic is flawed for several reasons:

1. Most companies calculate and benchmark against a cost of capital and do not utilize a hurdle rate,
2. Many companies that do utilize a hurdle rate rely upon an arbitrary number that remains constant regardless of economic conditions, and
3. Some companies use these terms interchangeably.

The terms "cost of capital" and "hurdle rate" are well known terms in corporate finance. However, in

one of the most widely used corporate finance textbooks, *Fundamentals of Financial Management*,<sup>10</sup> the terms "entrepreneur," "entrepreneurial incentive," or "entrepreneurial profit" do not appear in the index. In corporate finance, even if a project's hurdle rate is greater than the cost of capital, this excess is not identified as entrepreneurial profit. To suggest that this excess should be so identified is similar to the discussions on this subject in the older editions of *The Appraisal of Real Estate* where entrepreneurial profit was determined by simply subtracting direct and indirect costs from the sale price of a project. Theory and practice no longer endorse this methodology.

One measure of entrepreneurial profit is if the income approach and/or the sales comparison approach indicate a higher value than the cost approach without the consideration of an additive for entrepreneurial profit. However, as *The Appraisal of Real Estate*, Twelfth Edition cautions, one cannot simply assume that the difference between the selling price and the total cost of a project is attributable to entrepreneurial profit, especially when there is a significant time lag between construction and the appraisal or sale of the property. The total cost of a project, before consideration of entrepreneurial profit, should include total cost of development, including contractor's profit, plus marketing costs.

## Conclusion

The concept of entrepreneurial profit has continued to evolve over time. Entrepreneurial profit is determined after the fact but must be based upon market data. The use of an inflexible percentage adjustment for entrepreneurial profit is questionable because it assumes that such market data is uniform in all circumstances. The passage of time between construction and the appraisal or sale of a property creates difficulties in quantifying the existence of entrepreneurial profit, if any. Some properties are not built to be sold. The expected profit is derived from operating the property. The cost approach for such property should not include entrepreneurial profit. And, if a company utilizes a hurdle rate, the difference, if any, between the hurdle rate and its cost of capital certainly should not be relied upon in determining the existence or extent of entrepreneurial profit. ♦

*Dr. John H. Davis, III, is an appraiser and financial consultant. Davis is presently teaching finance at Birmingham-Southern College in Birmingham, Alabama.*

*Kirk W. Weinert is an attorney with extensive experience in the area of property tax and is currently of counsel to Popp & Ikard LLP in Austin, Texas.*

10. Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial Management* (9th ed. 2001).

# **Leased Fee vs. Fee Simple Valuation**

**Institute for Professionals in Taxation and ABA  
Section of Taxation Advanced Property Tax Seminar**

**New Orleans, Louisiana**

**March 13, 2008**

**Real Estate Analysis Corporation  
Chicago, Illinois**

**Michael J. Kelly. MAI, SRPA**



## Leased Fee vs. Fee Simple

### Introduction

In valuing real property, the general statement that the value of the property is X can be an oversimplification. The value of the real property that is being appraised has to be defined in terms of:

- 1) The identification of the real estate.
- 2) The effective date of valuation.
- 3) And most importantly,  
The property rights being appraised.

Is the property being appraised in **fee simple interest**, unencumbered by any leases, or is the **leased fee estate** being valued?

For assessment purposes, the general rule is fee simple valuation in order to allow assessors to have uniformity of values and neither penalize nor undervalue leased properties.

### Concept of Real Property Versus Real Estate

The concept of real property consists of the bundle of rights (intangible value) **and** the real estate (tangible value) which is land and buildings only.

The **bundle of rights** are defined as:

1. The right to use real estate.
2. The right to sell real estate.
3. The right to lease real estate.
4. The right to give it away.
5. The right to exercise all or none of these rights.

These are intangible assets associated with the ownership of real property.

## Leased Fee vs. Fee Simple

### **Concept of Real Property Versus Real Estate (cont.)**

**Real estate** is defined as:

“Physical land and appurtenances affixed to the land, e.g., structures.”

This includes the **tangible** assets only such as land and building.

**Real Property** is defined as:

“All interests, benefits, and rights inherent in the ownership of physical real estate”.

The concept of real property includes the tangible assets (land and buildings) and intangible assets (bundle of rights) of the real property, or it can be expressed as:

Real Estate	(Tangible Assets)
<u>Plus: The Bundle of Rights</u>	<u>(Intangible Assets)</u>
Equals: Real Property	(Tangible and Intangible Assets)

The significance of these two concepts has to be analyzed in the general framework of the appraisal process. The appraiser, and assessor, has to define the appraisal problem and identify which property rights are to be appraised. The answer to this question will dictate the course of the appraisal process for the entire report.

### **Fee Simple Estate Versus Leased Fee Estate**

With respect to defining the property rights being appraised, the first type would be the valuation of the **fee simple estate**, which is defined as:

“Absolute ownership unencumbered by an other interest or estate; subject only to the limitations imposed by the governmental powers of eminent domain, escheat, police power, and taxation.”

The valuation of the fee simple estate is normally required for assessment purposes in most states. The fee simple estate includes all of the bundle of rights that are inherent in the ownership of real property limited only by governmental regulations. This would include all real property, i.e. real estate plus all of the bundle of rights.

The next type of valuation would be the appraisal of the **leased fee estate**, which is defined as:

“An ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others; the rights of the lessor (the leased fee owner) and the lessee are specified by contract terms contained within the lease.”



Leased Fee vs. Fee Simple

**Fee Simple Estate Versus Leased Fee (cont.)**

The leased fee estate consists of the owner's right to receive the specified contract rent during the term of the lease and the right to the reversion of the property at the end of the lease. By virtue of the lease the owner has given up one of the bundle of rights included in the fee simple estate. He or she owns the land and the building but has given up the right to occupy the property during the term of the lease.

The leased fee estate value is generally estimated by calculating the net present value of the contract rent and the present value of the reversionary. The two present values are added together to equal the leased fee estate value.

**Contract Rent Versus Market Rent**

In valuing any property, there are two distinctly different concepts of rent that have to be considered: (1) contract rent, and (2) market rent.

**Contract rent** is defined in The Dictionary of Real Estate Appraisal published by the American Institute of Real Estate Appraisers as follows:

“The actual rental income specified in a lease.”

The concept of contract rent varies with the concept of **market rent** which is defined as follows:

“The most probable rent that a property should bring in a competitive and open market reflecting all conditions and restrictions of the specified lease agreement including term, rental adjustment and revaluation, permitted uses, use restrictions, and expense obligations; the lessee and lessor each acting prudently and knowledgeably, and assuming consummation of a lease contract as of a specified date and the passing of the leasehold from lessor to lessee under conditions whereby:

- 1) Lessee and lessor are typically motivated.
- 2) Both parties are well informed or well advised, and acting in what they consider their best interests.
- 3) A reasonable time is allowed for exposure in the open market.
- 4) The rent payment is made in terms of cash in United States dollars, and is expressed as an amount per time period consistent with the payment schedule of the lease contract.
- 5) The rental amount represents the normal consideration for the property leased unaffected by special fees or concessions granted by anyone associated with the transaction.

### Leased Fee vs. Fee Simple

The selection of which concept of rent is to be used in an appraisal is dependent on the property rights being appraised and will have a substantial affect on the final value estimate for the property. **Contract rent** is normally used when the property is being valued as encumbered by the existing leases which is also known as the value of the **leased fee estate**.

When valuing property utilizing this concept, contract rent is used even if it is less than or greater than current market rent for the property.

**Market rent** is used when the property rights being appraised consist of the **unencumbered fee simple estate**.

This requires valuing the property at its highest and best use using full market rent as of the effective date of valuation. Contract rent is considered, when rent is being projected for the property, but it has to be adjusted up or down if it doesn't equal the current market rent for the property as indicated by current comparable rentals from other similar properties.

<b>Interest Being Appraised:</b>	<b>Fee Simple</b>	<b>Leased Fee Estate</b>
<b>Rights Included:</b>	All of the Bundle of Rights, ie. Real Property	<u>Right to Receive Contract Rent and Repossession of Property at Expiration of the Lease</u>
<b>Type of Rent Used in Appraisal:</b>	Market Rent	Contract Rent

### How a Leasehold Estate Occurs

The distinction between these concepts leads us to the concept of leasehold estates, which is defined as:

“The interest held by the lessee (the tenant or renter) through a lease transferring the rights of use and occupancy for a stated term under certain conditions.”

A positive leasehold estate occurs when the market rent, as of the effective date of valuation, exceeds the contract rent. In other words, the tenant has the opportunity to make a profit on his lease by subleasing the property to another party at a rental rate that is higher than the original rate specified in the lease. The leasehold estate is an intangible value accruing to the tenant strictly because of the existence of lease terms that are in the tenant's favor.

Leased Fee vs. Fee Simple

<b>Leased Fee Estate Lessor's Right</b>	<b>Leasehold Estate Tenant's Rights</b>
1. Receive Rent	1. Occupy the Property
2. Reversion of the Property at Lease Expiration	2. To Sublease the Property

**Leased Fee Estate and Fee Simple Value**  
**When Contract Rent Exceeds Market Rent**

When contract rent is below market rent it creates a leasehold value for a tenant. This results in the leased fee estate, or the lessor's interest, being less than the fee simple estate value of the property. However, the reverse can occur. The leased fee estate value can exceed the fee simple value if contract rent exceeds the current market rent on the date of valuation. For example, this situation can occur when rents have been declining in a given location, due to market conditions, or when a lease is based on a percentage of sales volume that has continued to increase and exceeds the current market rent on the date of valuation.

The situations are significant when valuing property for assessment purposes which normally requires a "pure" fee simple value of the property requiring market rent as of the date of valuation. Contract rent is considered, but it has to be adjusted up or down if it doesn't equal market rent.

Therefore, when the situation occurs where contract rent exceeds market rent, and the property is being valued in fee simple for assessment purposes, the market rent will have to be imputed for the subject even though it is less than the contract rent.

The same valuation techniques are used as before. However, it must be recognized that if the leased fee estate value exceeds the value of the fee, it is a value accruing to the lessor strictly by virtue of the lease and does not represent the value of the underlying fee simple estate.

In valuing, the leased fee estate where contract rent exceeds market rent, the amount of rent that exceeds market rent is known as excess rent.

When excess contract rent is present the leased fee estate value can exceed the value of the fee simple estate. The value of the property to that specific owner, or lessor, is higher, however the value of the fee simple estate does not change. Just as contract rent was adjusted up when it didn't equal market rent and the fee simple was being valued, it has to be adjusted down when it exceeds market rent.

Leased Fee vs. Fee Simple

**Adjusting Leased Fee Sales Transactions**  
**When Leasehold Estates Exist.**

When analyzing sales a determination should be made as to whether or not the sale price represents a transfer of more than the complete fee simple estate, or less. If the sale property is not encumbered by any leases the price usually represents the fee simple and a leasehold adjustment normally is not required. However, if the property sold subject to a lease then the contract rent has to be analyzed to determine if it represents market rent as of the date of sale. For example, if the contract rent is less than the market rent, a positive leasehold estate is present and will have to be quantified and added to the sale price which represents a leased fee estate value. The sum of the two estates will indicate an adjusted sale price that is representative of the fee simple value.

Sale Price of Leased Fee Estate

**Plus or Minus:** Value of Tenant's Leasehold Estate  
(Positive or Negative)

**Equals:** Adjusted Sale Price Representative  
of Fee Simple Value

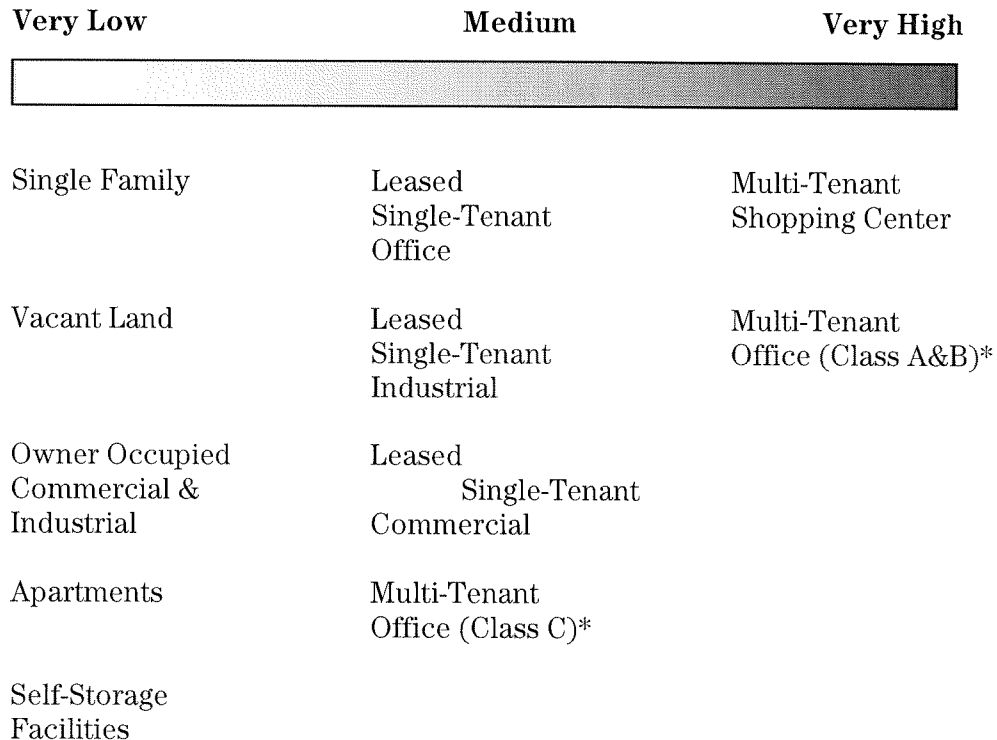
Leased Fee vs. Fee Simple

**Which Property Types Will Most Likely Need Adjustment?**

Certain property types have a greater frequency of requiring sale price adjustment to convert a leased fee price to a fee simple price. Those rarely, if ever, requiring leasehold adjustment, are single family, vacant land or apartments. On the other end of the spectrum are multi-tenant shopping centers and Class A or B multi-tenant office buildings.

These properties can be placed on a “scale” as follows:

**Frequency of Need to Adjust Sale Price  
for Presence of Leasehold Value  
(Negative or Positive)**



\*Class A =  
less than 10  
years old  
Class B =  
10 to 30 ± years old  
Class C =  
30 + years old

## Leased Fee vs. Fee Simple

### **Why Do Certain Types Need Adjustment?**

The need to adjust sale prices for leasehold value is created by the presence of leases. Owner-occupied, or those with short term leases (1-2 years or less) such as apartments, self-storage facilities or Class C office buildings, typically do not sell with any measurable leasehold value.

On the other end of the spectrum are multi-tenant shopping centers and Class A and B office buildings. They typically are encumbered with complicated long-term leases of 5 to 10 years in duration with escalators during the lease and rent concessions in the beginning.

During the terms of these leases, market conditions frequently change creating the difference between contract rent, as of the assessment date, and market rent.

### **Elements of Leased Fee Sales**

This applies in particular to the Class A and B office market which historically exhibits the most market volatility in rental rates and vacancy. It has shown the largest swings in cycles of boom and bust caused by changes in the federal tax codes, lending policies, effect of foreign investors, changes in cap rates, supply and demand.

The major elements to analyze in a leased fee sale are as follows:

- 1) Rental Rates**
- 2) Market Vacancy Rates**
- 3) Capitalization Rates**

A difference in any of these three, between actual and market as of the sale date will create leasehold value, (negative or positive) embedded in the sale price of the leased fee interest.

### **Effect of Excess Tenant Improvements on Leased Fee Prices**

In some cases, such as industrial buildings, and particularly office buildings, the inclusion of amortized above standard tenant improvements (T.I.) in the initial contract rental rate will create a contract rent that is above market right from the lease inception. If that interest eventually sells, the leased fee sale price will include the capitalized value of that above standard T.I. hence requiring price adjustment.

## Leased Fee vs. Fee Simple

### **1.)Rental Rate Difference**

The appraiser, or assessor, determines the contract rental rate for the sale property and compares it to recently commenced comparable leases to determine if there is a meaningful difference. If so, the leased fee price can be adjusted by calculating the capitalized value or present worth of the rent difference.

When a group of leased fee prices are used in an appraisal of a fee simple interest, the leased fee price can also be analyzed by comparing the contract Net Income Per Sq. Ft. of the leased fee properties to that of the subject and adjusting accordingly.

### **2.)Vacancy Rate Difference:** **Effect on Price of 100% Occupied Buildings**

Single tenant commercial buildings frequently sell as long-term 100% rented properties. Under this condition, the sale price will be based on a 100% occupancy rate with no vacancy allowance. If the same property were appraised in fee simple, by the Assessor or a private appraiser, on the sale date, a market vacancy would be subtracted from rental income.

Consequently, the leased fee price needs to be adjusted from actual vacancy to market vacancy in order to derive an indicator of value for the fee simple interest.

### **3.)Cap Rate Difference**

This component comes into play most frequently on single-tenant office, commercial or industrial buildings. The recent “compression” of cap rates and large increase in the number of properties being packaged and sold as investments on sale-leasebacks has created leased fee sales at low cap rates similar to corporate bonds. These transactions are typically driven by the high credit-worthiness of the tenant and need to be adjusted to a more typical rate representative of real estate risk.

For example, leased fee transactions on large **single** tenant office buildings have occurred at cap rates as low as 5.5% to 6.5% when the Korpacz rate reporting service is showing 6.5% to 7.5% on **multi-tenant** office buildings which have less risk due to their diversified tenant structure and multi-tenant building design.

Leased Fee vs. Fee Simple

**Adjusting Sales Transactions**  
**When Leasehold Estates Exist**

The following is an example of a sale of a leased fee estate interest and how it can be adjusted up for the leasehold estate of the tenant. This is a modern industrial building located in a suburb of a major metropolitan area. It sold subject to a long term lease that was at a rental rate substantially below the current market rent of comparable properties.

The sale is described as follows:

**Example #1**

**Industrial Building Sale**

Sale Price ( <b>Leased Fee</b> ):	\$9,400,000
Adjusted Sale Price ( <b>Fee Simple</b> ):	\$11,948,000
<b>Adjusted</b> Unit Sales Price:	\$33.33 per square foot of building, including land.

**Description of the Improvements**

This is single story masonry and insulated metal panel manufacturing plant containing 358,412 square feet on 1,403,067 square feet of land. The building was originally constructed in 1967.

The property sold for \$9,400,000, however, it was subject to a long term lease at a contract rent that was below market rent, for comparable buildings, at the time of sale. The tenant had a leasehold estate in the property because of the favorable rental rate advantage. We will estimate the leasehold estate value and add it to the purchase price of the leased fee estate of \$9,400,000 in order to indicate an adjusted purchase price for the entire fee simple interest.

The fixed contract rent at the time of sale was \$845,852 or \$2.36 per square foot. The lease started 10 years before the sale and has 20 more years to run at the same rate. Market rent for this type of property, at the time of sale, is \$3.00 per square foot (after vacancy and credit loss of 5%). The tenant had a contract rental rate advantage of \$.64 per square foot ( $\$3.00 - \$2.36 = \$.64$ ). In order to convert this rental advantage to a capital sum it has to be capitalized to equal the value of the leasehold estate (positive).



Leased Fee vs. Fee Simple

**Leased Fee Price Adjustment for Below Market Rent**

<b>Market Rent</b>		\$3.00
<b><u>Less:</u></b>	Contract Rent	- 2.36
<b><u>Equals:</u></b>	Tenant's Rental Advantage	\$0.64
		X 358,412 Sq. Ft.
Annual Rental Advantage		\$229,383
<b><u>Divided By:</u></b>	Overall Rate	÷ 0.09*
<b><u>Equals:</u></b>	Price Adjustment – Leasehold Estate	\$2,548,700
<b><u>Plus:</u></b>	Leased Fee Price	+ 9,400,000
<b><u>Equals:</u></b>	Adjusted Price for Fee Simple Interest	\$11,948,700

\*When the discounting period gets beyond 15 years use of the overall rate versus using a present worth factor will yield similar values. Using a present worth factor will always render a more precise calculation and when the remaining lease term gets shorter, use of a present worth factor becomes more relevant.

**Adjusting Sales Transactions When Leasehold Estates Exist**

**Example #2**

**Office Building Sale – Single Tenant**

Sale Price - <b>Leased Fee :</b>	\$81,800,000
Adjusted Sale Price - <b>Fee Simple:</b>	\$38,731,800
<b>Adjusted Unit Sales Price:</b>	\$109.41 sq.ft.

Leased Fee vs. Fee Simple

**Comments**

The sale consisted of a five-story, single tenant suburban office building containing 354,000 square feet of net rentable area located on a 657,378 square foot parcel of land. The fully sprinklered building has steel and pre cast concrete framing with a granite aggregate on concrete panel and insulated double-pane reflective glass/metal curtain wall exterior. It has a variable air volume system with two independent chilled water systems and hot water heat, five passenger elevators, one freight elevator, and two depressed dock doors. The improvement includes a full service cafeteria, executive dining rooms, an outdoor patio, and has approximately 1,275 parking spaces.

The improvement was originally completed in 1986, however it was extensively renovated prior to the sale by the seller for the eventual tenant at a cost of approximately \$25,000,000 which is \$70.00 per square foot. This indicates a reduced effective age of 10 years old at the time of sale.

The seller had marketed the building and eventually obtained a major corporation to lease the entire building on a long-term lease from June 2006 to May 2017, plus options to extend. The tenant required substantial renovations in order to agree to the long term lease. The average annual contract net rent is approximately \$4,500,000, or \$12.71 per sq. ft. net, indicating an overall rate for the leased fee estate interest of 5.5%.

**Adjustment of Leased Fee Sale Price to Fee Simple Sale Price**

The leased fee estate interest in the sale property sold in July of 2006 for \$81,800,000, which calculates to \$231.00 per square foot of building area.

The sale of the leased fee interest arises from the contract rental agreement entered into in 2006 as a result of a long term lease agreement. When the leased fee estate interest sold, the sale price was a function of the contract rent.

**Abstraction of Cap Rate from Sale**

Average Contract Effective Net Rent @ 100% Occupancy		\$4,500,000
<b><u>Divided by:</u></b> Sale Price of Leased Fee Estate	÷	<u>\$81,800,000</u>
<b><u>Equals:</u></b> Overall Rate for the Leased Fee Estate	=	5.5%

Leased Fee vs. Fee Simple

**Rental Rate Difference**

The first item to address in a leased fee transaction is whether or not the contract rent is above or below market, as follows.

The average net rent is \$12.71 per sq. ft.

This is converted to a gross rent by adding in operating expenses at \$6.50 and taxes at \$2.00 for an effective gross rent of \$21.21 per square foot. This rental rate is slightly above market rents and reflects amortization of excess build-out for the tenant (i.e. T.I. cost over \$40 sq. ft.)

In our opinion, market rent was \$20.00 per square foot gross at the time of sale. The adjustment is as follows:

**Adjustment for Excess Rent**

Leased Fee Gross Rent	\$21.21
<b><u>Less:</u></b> Market Gross Rent	<u>- \$20.00</u>
<b><u>Equals:</u></b> Excess Rent	\$1.21
<b><u>Multiplied by:</u></b> Building Size	<u>x 354,000</u>
<b><u>Equals:</u></b> Total Excess Rent	\$428,340
<b><u>Divided by:</u></b> Overall Rate	<u>÷ 5.5%</u>
<b><u>Equals:</u></b> Price Adjustment for Excess Rent	\$7,788,000

Leased Fee vs. Fee Simple

**Vacancy Difference**

The transaction price still needs to be adjusted for market vacancy.

The property was 100% occupied at the time of sale. Market vacancy for this market was 23.9% in 2006. The contract net rent and price are adjusted to market vacancy as follows:

**Adjustment to Market Vacancy**

Contract Effective Net Rent @ 100% Occupancy (\$4,500,000 - \$428,340* = \$4,071,660)	\$4,071,660
--	-------------

<b><u>Multiplied by:</u></b> Market Vacancy	x	<u>.239</u>
---	---	-------------

<b>Equals:</b> Difference in Net Rent Between Leased Fee And Market Occupancy	=	\$973,126
--	---	-----------

<b><u>Divided by:</u></b> Overall Rate for the Leased Fee Estate	÷	<u>5.5%</u>
--	---	-------------

<b>Equals:</b> Leased Fee Price Adjustment for Market Vacancy	=	\$17,693,200
--	---	--------------

\*Excess rent already adjusted for in prior section

**Cap Rate Difference**

The last element to analyze in a leased fee sale is the effect on price when there is a single tenant with a long-term lease and a high credit rating. The leased fee sold in 2006 when the *Korpacz Real Estate Investor Survey* reported overall rates in the Chicago office market at 7.38% for multi-tenant buildings, which are less risky, versus the cap rate for the sale of 5.5%. In our opinion, a market cap rate in 2006 for a large single tenant office building would have been approximately 8.0%, indicating adjustment is needed for the below market leased fee cap rate.

The tenant is a Fortune 500 company with a high credit rating creating a lower than market cap rate because of this non-realty characteristic.

The leased fee price is adjusted to a market cap rate as follows:

Leased Fee vs. Fee Simple

**Adjustment for Below Market Cap Rate**

Contract Effective Net Rent @ 100% Occupancy	\$4,500,000
<b><u>Less:</u></b> Market Vacancy Adjustment*	- \$973,126*
<b><u>Less:</u></b> Excess Rent Adjustment*	- <u>\$428,340*</u>
<b><u>Equals:</u></b> Market Net Rent	\$3,098,534
<b><u>Divided by:</u></b> Market Overall Rate @ 8.0%	÷ <u>.08</u>
<b><u>Equals:</u></b> Adjusted Price	\$38,731,675

\*Already adjusted for in prior section.

**Abstraction of Adjustment for Cap Rate Only**

Leased Fee Price	\$81,800,000
<b><u>Less:</u></b> Adjustments Already Quantified	
Excess Rent	- \$7,788,000
Market Vacancy	- <u>\$17,693,200</u>
<b><u>Equals:</u></b> Net Price	\$56,318,800
<b><u>Less:</u></b> Price Adjusted for Cap Rate	- <u>38,731,675</u>
<b><u>Equals:</u></b> Net Adjustment for Below Market Cap Rate	\$17,587,000

Leased Fee vs. Fee Simple

**Summary of Adjustments**

Leased Fee Sale Price		\$81,800,000
<b><u>Less:</u></b> Adjustment for Excess Rent	-	\$7,788,000
<b><u>Less:</u></b> Adjustment for Market Vacancy	-	\$17,693,200
<b><u>Less:</u></b> Adjustment for Below Market Cap Rate	-	<u>\$17,587,000</u>
<b><u>Equals:</u></b> Adjusted Fee Simple Price	=	\$38,731,800
Adjusted Fee Simple Price Per Square Foot		\$109.41

**Summary of Points**

- 1.) The concept of real property includes tangible and intangible assets consisting of the land and building (tangible) and the bundle of rights (intangible).
- 2.) When valuing property, the property rights being included in the appraisal have to be clearly defined.
- 3.) Fee simple value is generally used for assessment purposes and the concept implies imputing market rent even if the contract rent is higher or lower.
- 4.) Leased fee estate value is based strictly on valuing the lessor's interest according to the rental amounts dictated in the lease. Correct interpretation of the lease provisions is critical in this situation.
- 5.) Leasehold estates are intangible values created by a lease and their value disappears at the termination of the lease.
- 6.) Sales of leased fee interests need to be adjusted (up or down) if there is a leasehold estate (positive or negative) present, in order to have an indicator of value for the fee simple interest.
- 7.) As a general rule, when valuing property types that frequently sell as leased fee transactions (such as multi-tenant shopping centers and Class A to B multi-tenant office buildings) the Sales Approach becomes the least reliable of the 3 approaches because of the leased fee sale adjustments. The Income Approach becomes the most reliable indicator of the value because it will require fewer adjustments.

-----Original Message-----

From: David C. Lennhoff  
Sent: Tuesday, August 4, 2015 1:49 PM  
To: SMA  
Subject: RE: Scanned from a Xerox Multifunction Printer

Welcome. I taught that course in Florida about 3 times.

David C. Lennhoff, CRE, MAI  
Director, State & Local Tax and Advisory, Altus Group US Inc.  
D: 703.245.9732 T: 703.245.9720 ext 3702 M: 703.336.7488 F: 703.245.9721  
8300 Greensboro Drive, Suite 700, McLean, Virginia, 22102 USA

This message, and the documents attached hereto, are intended only for the addressee and may contain privileged or confidential information. Any unauthorized disclosure is strictly prohibited. If you have received this message in error, please notify us immediately so that we may correct our internal records. Please then delete the original message. Thank you.

-----Original Message-----

From: David C. Lennhoff  
Sent: Tuesday, August 4, 2015 1:44 PM  
To: SMA  
Subject: FW: Scanned from a Xerox Multifunction Printer

Here are some pages from Course 833 (marked up because my teaching copy), and the 14th ed of ARE.

David C. Lennhoff, CRE, MAI  
Director, State & Local Tax and Advisory, Altus Group US Inc.  
D: 703.245.9732 T: 703.245.9720 ext 3702 M: 703.336.7488 F: 703.245.9721  
8300 Greensboro Drive, Suite 700, McLean, Virginia, 22102 USA

**From:** David C. Lennhoff  
**Sent:** Tuesday, August 4, 2015 1:31 PM  
**To:** SMA  
**Cc:**  
**Subject:** RE:

Well, for one thing, I was lead developer on it. **Quality of tenant would only be relevant in a leased fee valuation. The quality of the real estate would be relevant in a fee simple valuation.** The course quotes the Appraisal of Real Estate text, "A lease never increases the market value of the real property rights to the fee simple estate. Any potential value increment in excess of a fee simple is attributable to the particular lease contract and they constitute contract rather than real estate rights."

David C. Lennhoff, CRE, MAI  
Director, State & Local Tax and Advisory, Altus Group US Inc.

**Please note my new phone numbers below.**

D: 703.245.9732 T: 703.245.9720 ext 3702 M: 703.336.7488 F: 703.245.9721  
8300 Greensboro Drive, Suite 700, McLean, Virginia, 22102 USA



*This message, and the documents attached hereto, are intended only for the addressee and may contain privileged or confidential information. Any unauthorized disclosure is strictly prohibited. If you have received this message in error, please notify us immediately so that we may correct our internal records. Please then delete the original message. Thank you.*

**From:** SMA  
**Sent:** Tuesday, August 4, 2015 1:24 PM  
**To:** 'David C. Lennhoff'  
**Cc:**  
**Subject:**

**833: Fundamentals of Separating Real Property, Personal Property, and Intangible Business Assets**

***A candidate for MAI and also a CCIM candidate is employed as a Value Adjustment Board special magistrate – and he declared, more than once, that “the quality of the tenant” was relevant to assessments. And on his on-line resume, I note he has taken the course noted above. What can you tell me about that course, if anything?***

***Thanks David***

***Sheila Anderson***



## **Administrative procedure act and taxation**

**Number:** AGO 76-123

**Date:** November 12, 1998

**Subject:**  
Administrative procedure act and taxation

### **TAXATION--APPLICABILITY OF ADMINISTRATIVE PROCEDURE ACT TO STANDARD ASSESSMENT PROCEDURES, FORMS, AND MEASURES OF VALUE**

To: J. Ed Straughn, Executive Director, Department of Revenue, Tallahassee

Prepared by: Joseph C. Mellichamp III, Assistant Attorney General

#### **QUESTIONS:**

1. Is a standard assessment procedure a rule?
2. Is a standard measure of value a rule?
3. Is a form and its instructions, promulgated pursuant to s. 195.022, F. S., a rule; would such a form be a rule if its sole use was by a county official in reporting to the Department of Revenue; would the written permission of the executive director allowing a county officer to use his own form constitute an order or a rule?
4. If the answer to any of the foregoing questions is yes, must such rules be published and indexed in the Florida Administrative Code?

#### **SUMMARY:**

A standard assessment procedure prescribed pursuant to s. 195.027, F. S., a standard measure of value promulgated pursuant to ss. 195.002 and 195.032, F. S., and a form and its instructions prescribed by s. 195.022, F. S., are rules under the provisions of Ch. 120, F. S. Such forms and instructions, whether or not a particular form was solely for use by a county official reporting to the Department of Revenue, are rules under the provisions of Ch. 120. Written permission by the executive director pursuant to s. 195.022 to a county official to use a form other than the forms described by the department is an order under Ch. 120, F. S., which requires that the standard assessment procedures, the standard measure of value, and the forms and instructions adopted by the department be filed, published, and indexed in the Florida Administrative Code.

Section 195.062, F. S., provides:

"The department shall prepare and maintain a current manual of instructions for property appraisers and other officials connected with the administration of property taxes. This manual shall contain all rules and regulations, all instructions relating to the use of forms and maps,

standard assessment procedures, and the standard measures of value prescribed by the department or by general law. . . ."

Your questions are answered in the affirmative. Preliminarily, it should be noted that Ch. 74-234, Laws of Florida, passed during the same legislative session as Ch. 74-310, Laws of Florida, contained no provisions which would alter the application of the Administrative Procedure Act to the Department of Revenue. There are no provisions in Ch. 120, F. S., exempting the department from the provisions of the act, and it is within s. 120.52, defining agency. Attorney General Opinion 075-312. Therefore, if it is determined that the manual of instructions are rules under the statutory definition, it can be concluded that all pertinent provisions of the Administrative Procedure Act must be complied with by the department.

This legal situation arises out of s. 4, Art. VII, State Const., providing:

"By general law regulations shall be prescribed which shall secure a just valuation of all property for ad valorem taxation . . . ."

Section 195.027(1), F. S., provides that the Department of Revenue shall prescribe reasonable rules and regulations for the assessing and collecting of taxes.

Section 195.002, F. S., provides that the Department of Revenue shall have general supervision of the assessment and valuation of property so that all property will be placed on the tax rolls and valued according to its just valuation.

Section 195.032, F. S., provides that, in furtherance of the requirements set out in s. 195.002, the Department of Revenue shall establish and promulgate standard measures of value not inconsistent with those standards provided by law.

Section 195.022, F. S., provides that the Department of Revenue shall prescribe and furnish all forms to be used in administering and collecting ad valorem taxes.

Section 195.062, F. S., provides that the Department of Revenue shall prepare and maintain a current manual of instructions which shall contain all rules and regulations, all instructions relating to the use of forms and maps, standard assessment procedures, and the standard measures of value prescribed by the department or by general law for property appraisers and other officials connected with the administration of property taxes.

The term "rule" as it is used in Ch. 120, F. S., must be defined to determine whether a standard assessment procedure, a standard measure of value, and a form and its instruction promulgated pursuant to s. 195.022, *supra*, are rules within the purview of that definition. Agency action must be an exercise of its quasi-legislative powers to be within the purview of s. 120.54, F. S. See *Boone v. Div. of Family Services*, 297 So.2d 594 (1 D.C.A. Fla., 1974); AGO 075-12. This quasi-legislative act can be generally defined as being primarily concerned with policy considerations for future, rather than the evaluation of past, conduct; based not on evidentiary facts but on policymaking conclusions to be drawn from facts; action affecting an entire class rather than individuals of the class; and action when particular members of a class are not singled out for special consideration based on their own facts. These descriptive phrases were capsulized in

Polar Ice Cream & Creamery Co. v. Andrews, 146 So.2d 609 (1 D.C.A. Fla., 1962) at 612:

"Stripped of its irrelevant verbiage, this section [s. 120.021(2)] of the statute defines the term 'rule' as a rule or order of general application adopted by an agency which affects the rights of the public or other interested parties."

Section 120.52(14), F. S., defines the term "rule" as meaning:

". . . each agency statement of general applicability that implements, interprets, or prescribes law or policy or describes the organization, procedure, or practice requirements of an agency and includes the amendment or repeal of a rule. The term does not include:

- (a) Internal management memoranda which do not affect either the private interests of any person or any plan or procedure important to the public,
- (b) Legal memoranda or opinions issued to an agency by the attorney general or agency legal opinions prior to their use in connection with the agency action, or
- (c) The preparation or modification of:
  - 1. Agency budgets,
  - 2. Contractual provisions reached as a result of collective bargaining, or
  - 3. Agricultural marketing orders under chapter 573 or chapter 601."

It is a well-settled rule of statutory construction that where the language of a statute is plain and unambiguous and conveys a clear and definitive meaning, there is no occasion for resort to the rules of statutory interpretation. The Legislature should be held to have intended what it has plainly expressed. 30 Fla. Jur. *Statutes* s. 79, pp. 230-231 (1974). The legislative intent and meaning of the term "rule," as it is used in Ch. 120, F. S., is unequivocally expressed in s. 120.52(14). See AGO 075-12. Thus, in view of the above, the inescapable conclusion is that a standard assessment procedure prescribed pursuant to s. 195.027, F. S., and a standard measure of value promulgated pursuant to ss. 195.002 and 195.032, F. S., must be considered rules under the provisions of Ch. 120. The conclusion is mandated by the fact that they are unambiguous statements by the Department of Revenue that implement and interpret the Constitution and legislative policy of just valuation for ad valorem tax purposes of all property and provide for a uniform assessment as between property within each county and property in each other county or taxing district and are not mere internal memoranda which do not affect either the private interests of any person or any plan or procedure important to the public. Section 195.0012, F. S.; *Burns v. Butscher*, 187 So.2d 594 (Fla. 1966); *Powell v. Kelly*, 223 So.2d 305 (Fla. 1969); *Container Corporation of America v. Rutherford*, 293 So.2d 379 (1 D.C.A. Fla., 1974).

It seems equally clear that a form and its instructions prescribed pursuant to s. 195.022, F. S., are likewise a rule. The form and instructions are department statements of general applicability to all property appraisers, tax collectors, clerks of the circuit courts, and boards of tax adjustment in administering and collecting ad valorem taxes which describe the procedure and practice requirements of the department in order that all property will be assessed, taxes will be collected, and that the administration will be uniform, just, and otherwise in compliance with the requirements of the general law and the Constitution. Such forms and instructions could not reasonably be considered an exception to the definition of a rule as set forth in s. 120.52(14), F. S.

There remains the question of whether or not written permission of the executive director allowing a county officer to use his own form in lieu of those forms prescribed by the department constitutes an order or a rule. Section 195.022, *supra*, provides that the department is to prescribe and furnish all forms to be used by county officials in administering and collecting ad valorem taxes. A county officer may, however, at his own expense and with the showing of good cause receive written permission from the executive director to use a form other than the form prescribed by the department pursuant to s. 195.022.

Chapter 120, F. S., does not contain any reference to such terms as adjudication, rights, duties, privileges, or immunities. *Cf.* Bay National Bank and Trust Company v. Dickinson, 229 So.2d 302, 306 (1 D.C.A. Fla., 1969); Dickinson v. Judges of District Court of Appeal, First District, 282 So.2d 168 (Fla. 1973); Lewis v. Judges of District Court of Appeal, First District, 322 So.2d 16 (Fla. 1975). It would appear that, by deleting these terms from the statute, the limitations placed on the definition of the term "order" under Ch. 120, F. S. 1973, are not applicable as parameters. The new Ch. 120, F. S. 1975, covers all final agency actions. See *Levinson, The Florida Administrative Procedure Act: 1974 Revision and 1975 Amendments*, 29 U. Miami L. Rev. 617 (1975).

Section 120.52(2) and (9), F. S., define the terms "agency action" and "order" as follows:

"(2) 'Agency action' means the whole or part of a rule or order, or the equivalent, or the denial of a petition to adopt a rule or issue an order. The term also includes any request made under [s. 120.54(4)].

(9) 'Order' means a final agency decision which does not have the effect of a rule and which is not excepted from the definition of a rule, whether affirmative, negative, injunctive, or declaratory in form. An agency decision shall be final when reduced to writing."

Thus, based upon these definitional changes by the Legislature, it is my opinion that the term "order," within the meaning and context of Ch. 120 includes the agency's quasi-judicial powers, part of the agency's quasi-executive powers, and so much of the exercise of its "quasi-legislative" function not considered part of the rulemaking process. *Broward County v. The Administration Commission*, 321 So.2d 605 (1 D.C.A. Fla., 1975); *Lewis v. Judges of District Court of Appeal, First District, supra*.

In view of the above definition, it is my opinion that such written permission by the executive director to a county official, based on good cause shown, to use a form other than the forms prescribed by the department is an order as the term is contemplated under Ch. 120, F. S. Such written permission would affect the private interests of persons whose property is being taxed under such form and is therefore a procedure important to the public. The written permission does not have the effect of a rule since it is not an agency statement of general applicability.

In view of the affirmative answers to your questions concerning whether or not a standard assessment procedure prescribed pursuant to s. 195.027, F. S., a standard measure of value promulgated pursuant to ss. 195.002 and 195.032, F. S., and the forms and instructions prescribed pursuant to s. 195.022, F. S., are rules for the purposes of Ch. 120, *supra*, the rules must be published and indexed in the Florida Administrative Code. Section 120.54(10)(b) provides that:

"Twenty-one days after the notice required by subsection (1), or after the final public hearing, if the hearing extends beyond the 21 days, the adopting agency shall file with the Department of State three certified copies of the rule it proposes to adopt, a summary of the rule, a summary of any hearings held on the rule, and a detailed written statement of the facts and circumstances justifying the rule."

Section 120.55, F. S., provides that:

"(1) The Department of State shall:

\* \* \* \* \*

(b) Publish in a permanent compilation entitled 'Florida Administrative Code' all rules adopted by each agency . . . and complete indexes to all rules contained in the code. . . ."

It is my opinion that Ch. 120, F. S., will require that the standard assessment procedures, the standard measures of value, and the forms and instructions adopted by the department be filed, published, and indexed in the Florida Administrative Code.



RENNERT VOGEL  
MANDLER & RODRIGUEZ, P.A.  
ATTORNEYS AT LAW

Julie Schwartz, Esq.  
Direct Line 305.375.6583  
E-mail [jschwartz@rvmlaw.com](mailto:jschwartz@rvmlaw.com)

May 20, 2025

Property Tax Oversight Program  
Florida Department of Revenue  
[DORPTO@FloridaRevenue.com](mailto:DORPTO@FloridaRevenue.com)

Re: Comments on the proposed Florida Real Property Appraisal Guidelines  
revisions

Dear Sir/Madam:

Enclosed is a copy of the Draft 2- Coded version of the PTO's proposed revisions to the Florida Real Property Appraisal Guidelines, which contains our proposed revisions noted directly on the document. These include new comments as well as comments submitted previously but not reviewed by the committee prior to issuing the 2<sup>nd</sup> draft.

Jeffrey Mandler, Dan Wolfe and I, from RVMR, participated in the May 13<sup>th</sup> public meeting and provided more detailed explanations of the reasoning behind and importance of these comments. We request that you refer to those verbal comments to provide context for these suggested changes. Additionally, the May 13<sup>th</sup> meeting was ended early and we were unable to make comments on the Definitions section, which are now included here.

Re-iterating comments made at the public meeting, Section 4.4.8 regarding collection of income data from taxpayers contains substantive changes from the 2002 version which contradict current law and encourage collection of taxpayers' private financial data rather than limit such collection, per F.S. 195.027. Our proposed changes on the attached document are intended to clarify that current statutes allow the collection of a taxpayer's financial data only in limited circumstances when a determination has been made that such documents are "necessary" and "required to make a proper assessment as to the particular property in question." In contrast, the current proposed version encourages blanket requests for taxpayer information in order to compile data for use in assessing properties generally and incorrectly states that cooperation by the taxpayers is necessary. Additionally, reliance on taxpayers' "current actual income data" would mistakenly lead to assessments on a leased fee basis rather than fee simple as required. Lastly, our comments include references to sources of market data, which were included in the 2002 version and should be included again.

Section 6.4.1 addresses the cost approach. The definition contained in the current draft is misleading because developer's profit should not be included in the calculation of replacement cost new. Developer's profit is not taxed in Florida. Our proposed definition is from the Appraisal Institute Dictionary of Real Estate Appraisal, 7<sup>th</sup> Edition. An entrepreneurial incentive, which is proper to include, is different than profit, which is a non-taxable intangible value, and the two must not be confused. See also our comments in the Definition section, p. 41 for Entrepreneurial Incentive.

The Definition of Just Value on p. 42 needs to reference F.S. 193.011, Factors to Consider in Deriving Just Valuation, which is the primary statute governing just valuation for ad valorem assessments in Florida. Our proposed change uses the definition from the Appraisal Institute Dictionary of Real Estate Appraisal, 7<sup>th</sup> Edition, and also references the exclusion of intangibles as required in *Singh v. Walt Disney Parks and Resorts* and costs of sale as required by F.S. 193.011. Reliance on 12D-1.002(2) is outdated and does not address the uniform deduction necessary to achieve just value.

As discussed at the May 13<sup>th</sup> meeting, these guidelines serve as a guide to appraisers, and it is critical that they faithfully represent the current statutes and caselaw governing assessment of real property in Florida. We appreciate the opportunity to make comments and trust that these will be considered and incorporated into the next draft of the guidelines.

Regards,

A handwritten signature in black ink that reads "Julie Schwartz". The signature is written in a cursive, flowing style with a large, stylized initial "J".

Julie Schwartz, Esq.

JMS/eb

Cc: Jim Zingale, [jim.zingale@floridarevenue.com](mailto:jim.zingale@floridarevenue.com);  
Rene Lewis, [rene.lewis@floridarevenue.com](mailto:rene.lewis@floridarevenue.com);  
Mark Hamilton, [mark.hamilton@floridarevenue.com](mailto:mark.hamilton@floridarevenue.com)

# Florida Real Property Appraisal Guidelines



## DRAFT 2 - Coded

*(With highlighted coded changes  
from Clean Draft 1)*

Property Tax Oversight

XXXX 2024 2025



Contents

1.0 INTRODUCTION .....4

    1.1 Overview and Specific Authority. ....4

    1.2 Description of Guidelines .....5

    1.3 Purposes of These Guidelines.....5

    1.4 Context of These Guidelines.....5

    1.5 Content of These Guidelines .....6

2.0 FOUNDATIONAL PRINCIPLES.....7

    2.1 Legal and Regulatory Foundations .....7

    2.2 Other Sources of Appraisal Guidance .....9

    2.3 Foundations of Mass Appraisal in Florida..... 10

        2.3.1 Real Property Rights ..... 11

        2.3.2 Purpose and Intended Use ..... 11

        2.3.3 Intended Users ..... 11

        2.3.4 Date of Assessment ..... 11

        2.3.5 Comparison of Single-Property Appraisal and Mass Appraisal ..... 11

        2.3.6 Education and Training of Assessment Personnel ..... 11

3.0 THE MASS APPRAISAL PROCESS IN FLORIDA ..... 13

    3.1 Overview..... 13

    3.2 Annual Just Valuation Cycle..... 13

    3.3 Identification of Real Property..... 13

    3.4 Property Inspection ..... 14

4.0 MASS APPRAISAL DATA..... 15

    4.1 Overview of Mass Appraisal Data..... 15

    4.2 Data Collection and Management..... 16

    4.3 General Data ..... 16

    4.4 Specific Data ..... 16

        4.4.1 Title Transfer Documents..... 16

        4.4.2 Cadastral Mapping Data ..... 17

        4.4.3 Aerial Photography ..... 17

        4.4.4 Regulatory Data ..... 17

        4.4.5 Physical Characteristics..... 17

        4.4.6 Cost and Depreciation Data ..... 18

        4.4.7 Sale Data ..... 18

        4.4.8 Income Data..... 21



4.5 Quality Control for Data Collection and Management .....	21
4.5.1 Data Collection Manuals.....	22
4.5.2 Education and Training for Management and Staff .....	22
4.5.3 Internal Procedural Reviews .....	22
4.5.4 Internal Quality Audits.....	22
4.5.5 Data Entry Edits Within CAMA Systems .....	22
4.5.6 Data Edit Reports Within CAMA Systems .....	23
4.5.7 Exploratory Data Analysis .....	23
4.6 Geographic Stratification .....	23
4.7 Exploratory Data Analysis .....	24
4.7.1 Measures of Central Tendency .....	25
4.7.2 Measures of Dispersion .....	25
4.7.3 One-Variable Profiles, Charts, and Graphs .....	25
4.7.4 Two-Variable Profiles, Charts, and Graphs .....	25
5.0 QUALITY ASSURANCE FOR MASS APPRAISAL .....	26
5.1 Quality Assurance Overview.....	26
5.2 Valuation Planning .....	26
5.3 Organization and Communication .....	26
5.4 Personnel Management .....	26
5.5 Education and Training .....	27
5.6 Data Collection and Management.....	27
5.7 Valuation Edits, Data Edits, and Reviews .....	27
5.8 Sales Ratio Studies.....	27
5.9 Model Calibration .....	28
5.10 Value Reconciliation.....	29
5.11 Just Value Comparison.....	29
5.12 Taxpayer Communication and Value Appeals.....	29
6.0 MASS APPRAISAL VALUATION.....	31
6.1 Highest and Best Use .....	31
6.2 Overview of Valuation Approaches .....	32
6.3 Land Valuation .....	34
6.3.1 The Sales Comparison Approach to Land Valuation .....	34
6.3.2 The Allocation Method .....	35
6.3.3 The Abstraction Method.....	35
6.3.4 The Capitalization of Ground Rent Method.....	35

6.3.5 The Land Residual Technique .....	35
6.3.6 Considerations in Land Valuation .....	35
6.4 The Cost Approach.....	35
6.4.1 Cost Data/Cost Models .....	36
6.4.2 Depreciation .....	36
6.5 The Sales Comparison Approach .....	37
6.5.1 Multiple Regression Analysis (MRA) .....	37
6.5.2 Adaptive Estimation Procedure .....	38
6.6 The Income Approach.....	38
6.6.1 Market Rent and Expense Analysis.....	38
6.6.2 Direct Capitalization.....	39
6.6.3 Gross Income Multiplier (GIM).....	39
6.6.4 Yield Capitalization .....	39
Addendum A - DEFINITIONS .....	40
Addendum B – RELEVANT VALUATION CONCEPTS.....	46
Addendum C – MANAGING SALE DATA FOR PARCELS THAT CHANGE .....	49
Addendum D – TOPICAL INDEX FOR SALES RATIO STUDIES .....	51

## 1.0 INTRODUCTION

**1.1 Overview and Specific Authority.** Section 195.002(1), Florida Statutes (F.S.), identifies the Florida Department of Revenue (Department) as a state administrative agency with the statutory responsibility of general supervision of the assessment and valuation of property, and the administration and collection of property taxes. The Department's supervision is necessary to ensure all property is placed on the tax rolls and valued in accordance with the requirements of the state constitution←

Every four years, the voters in each Florida county elect a property appraiser as directed by Article VIII, section 1(d), of the Florida Constitution. Section 192.001(3), F.S., states the property appraiser is "the county officer charged with determining the value of all property within the county, with maintaining certain records connected therewith, and with determining the tax on taxable property after taxes have been levied." In the course of discharging its statutory duties, the Department provides general supervision to the property appraiser of each of the 67 counties in the state of Florida.

Property **Appraisers appraisers** have the statutory responsibility to list and appraise all real property in their respective county each year for purposes of ad valorem taxation, as stated in ss. 192.011 and 193.085(1), F.S.

Section 192.011, F.S., states, in pertinent part "[t]he property appraiser shall assess all property located within the county, except inventory, whether such property is taxable, wholly or partially exempt, or subject to classification reflecting a value less than its just value at its present highest and best use." Section 193.085(1), F.S., states, in pertinent part "[t]he property appraiser shall ensure that all real property within his or her county is listed and valued on the real property assessment roll."

Sections 195.062(1) and 195.032, F.S., specifically direct the Department to establish standard measures of value, which include these *Real Property Appraisal Guidelines*, to aid and assist property appraisers in performing their assessment and valuation responsibilities. Statute provides the specific authority and legislative directive for the Department's development of these guidelines, as well as underscores the Legislature's intent to limit the scope of their use.

Section 195.062(1), F.S., states, in pertinent part:

*The department shall prepare and maintain a current manual of instructions for property appraisers and other officials connected with the administration of property taxes. This manual shall contain all:*

- (a) Rules and regulations.*
- (b) Standard measures of value.*
- (c) Forms and instructions relating to the use of forms and maps.*

Section 195.032, F.S., states:

*In furtherance of the requirement set out in section 195.002, the Department of Revenue shall establish and promulgate standard measures of value not inconsistent with those standards provided by law, to be used by property appraisers in all counties, including taxing districts, to aid and assist them in arriving at assessments of all property. The standard measures of value shall provide guidelines for the valuation of property and methods for property appraisers to employ in arriving at the just valuation of particular types of property consistent with sections 193.011 and 193.461. The standard measures of value shall assist the property appraiser in the valuation of property and be deemed prima facie correct, but shall not be deemed to establish the just value of any property. However, the presumption of correctness accorded an assessment made by a property appraiser shall not be impugned merely because the standard measures of value do not establish the just value of any property.*

**1.2 Description of Guidelines.** The standard measures of value are provided through three sets of guidelines: the *Tangible Personal Property Appraisal Guidelines*, the *Agricultural Classified Use Real Property Appraisal Guidelines*, and this document, the *Real Property Appraisal Guidelines*. The full set of documents that comprise the manual of instructions, in accordance with s. 195.062(1), are available [at here: floridarevenue.com/property/Pages/Cofficial\\_MOI.aspx](http://floridarevenue.com/property/Pages/Cofficial_MOI.aspx).

The required scope of the components of the appraisal process will vary among the diverse real property markets in Florida's 67 counties. Resources (e.g., availability of information, equipment, and personnel) may differ among Florida counties and affect how property appraisers specifically apply the appraisal process. Property appraisers should apply these *Real Property Appraisal Guidelines* based on the economic factors and market dynamics present in their county. These guidelines are not a substitute for compliance with current Florida ad valorem tax law.

Section 195.0012, F.S., states: "*It is declared to be the legislative purpose and intent in this entire chapter to recognize and fulfill the state's responsibility to secure a just valuation for ad valorem tax purposes of all property and to provide for a uniform assessment as between property within each county and property in every other county or taxing district.*" General application of the principles detailed in these guidelines, even among counties experiencing different market conditions or varying resources, should yield uniform assessments.

**1.3 Purposes of These Guidelines.** These *Real Property Appraisal Guidelines* have three primary purposes:

- 1) To aid and assist property appraisers and staff in developing just valuations of real property for ad valorem tax purposes in accordance with Florida ad valorem tax law
- 2) To promote and facilitate the accuracy and equity of just valuations of real property for ad valorem tax purposes, both within and among counties
- 3) To meet the Department's statutory obligation to aid and assist property appraisers as stated in ss. 195.062(1), 195.002(1), and 195.032, F.S.

In accordance with s. 194.035(3), F.S., these guidelines are also statutorily cross-referenced as necessary source materials for purposes of the Department's duty to provide Value Adjustment Board (VAB) special magistrate training. For more information, the VAB training materials are available on the Department's website [at: floridarevenue.com/property/Pages/VAB.aspx](http://floridarevenue.com/property/Pages/VAB.aspx).

**1.4 Context of These Guidelines.** Section 195.062(1), F.S., dictates these guidelines do not have the force and effect of rules. As such, these guidelines do not function as the complete reference source on any of the following or similar subjects: valuation theory, approaches, methods, or procedures; assessment administration; or applicable provisions of Florida ad valorem tax law, manual of instructions, or regulatory requirements. In accordance with the limitations imposed by s. 195.062(1), F.S., these guidelines do not constitute a determinative legal standard for the valuation of real property. The statutory valuation legal standards are described in further detail in s. 194.301, F.S., and sections 2.1 and 2.2 of these guidelines.

The user should not solely rely on these guidelines. A thorough and independent knowledge of Florida ad valorem tax law and professionally accepted appraisal practices and appropriate appraisal methodologies is necessary. Property appraisers should use other professionally accepted sources of appraisal guidance (see section 2.2 of these guidelines). These sources should not conflict with current Florida ad valorem tax law.

Users should review all statements contained within the context of this entire document and should refer to this document in conjunction with other professionally accepted source materials. Citation to information from a particular source does not imply that all applicable information from that source is cited or relevant to the appraisal of property for ad valorem tax purposes in Florida. These guidelines do not establish the value of any

property and could not and do not encompass or address every methodological detail, legal premise, appraisal practice or educational treatise that might be applicable in the valuation of every property.

These guidelines do not address the procedure for approving or disapproving applications for real property exemptions. Chapter 12D-7, Florida Administrative Code (F.A.C.), sets forth the administrative rules for real property exemptions.

**These guidelines do not address the procedures for appraising personal property or classified use properties (see section 1.2 of these guidelines).**

**1.5 Content of These Guidelines.** These guidelines address the general procedures for producing just valuations of real property in compliance with Florida ad valorem tax law. The methods and approaches for establishing the just value of real property have not changed significantly since these guidelines were last published. These guidelines have been updated to reflect current Florida ad valorem tax law and reorganized as described below. This version of the *Real Property Appraisal Guidelines* replaces the 2002 version which was organized into 16 sections. In this update, related topics have been consolidated, repetition has been minimized, and some information has been moved to addendums:

New Section Number/Title	Old Section Number/Title
1.0 Introduction	1.0 Introduction
2.0 Foundational Principles	2.0 Foundations of Mass Appraisal in Florida
3.0 The Mass Appraisal Process in Florida	4.0 The Mass Appraisal Process in Florida
	5.0 Defining the Mass Appraisal Process
4.0 Mass Appraisal Data	6.0 Collecting and Managing Mass Appraisal Data
	7.0 Geographic Stratification for Mass Appraisal
	8.0 Exploratory Analysis of Mass Appraisal Data
5.0 Quality Assurance for Mass Appraisal	10.0 Valuation Planning
	16.0 Quality Assurance for Florida Mass Appraisal
6.0 Mass Appraisal Valuation	9.0 Consideration of Highest and Best Use
	11.0 Consideration of Valuation Approaches
	12.0 Land Valuation
	13.0 The Cost Less Depreciation Approach
	14.0 The Sales Comparison Approach
	15.0 The Income Capitalization Approach
Addendum A - Definitions	3.1 Important Definitions
Addendum B - Relevant Valuation Concepts	3.2 Relevant Concepts
Addendum C - Managing Sale Data for Parcels that Change	6.12.6 Special Considerations in Sale Data Management
Addendum D - Topical Index for Sales Ratio Studies	16.7.2-16.7.14 Various titles

As stated in the 2002 version, these guidelines are not intended to replicate existing textbooks on real property appraisal and, therefore, do not contain all of the knowledge required by property appraisers or other interested parties. Toward that end, edits have been made to these guidelines to remove valuation discussion that is either very basic or extremely specialized. This document should be used in conjunction with other applicable professionally accepted appraisal sources but only to the extent that other sources do not conflict with current Florida ad valorem tax law.

The footnotes to this document reference the primary sources of published information used to develop these guidelines. A reference to a particular source does not imply that all information from such source is applicable to the appraisal of real property for ad valorem tax purposes in Florida.

## 2.0 FOUNDATIONAL PRINCIPLES

Definitions for these key foundational mass appraisal terms are available in Addendum A:

Ad valorem tax  
Assessed value

Just value  
Mass appraisal

Quality control  
Real property

**2.1 Legal and Regulatory Foundations.** Section 192.042(1), F.S., requires that all real property must be assessed according to just value each year on January 1. Section 193.011, F.S., provides direction to property appraisers for the just valuation of real property for ad valorem tax purposes. It states:

**Factors to consider in deriving just valuation.**--*In arriving at just valuation as required under s. 4, Art. VII of the State Constitution, the property appraiser shall take into consideration the following factors:*

- (1) The present cash value of the property, which is the amount a willing purchaser would pay a willing seller, exclusive of reasonable fees and costs of purchase, in cash or the immediate equivalent thereof in a transaction at arm's length;*
- (2) The highest and best use to which the property can be expected to be put in the immediate future and the present use of the property, taking into consideration the legally permissible use of the property, including any applicable judicial limitation, local or state land use regulation, or historic preservation ordinance, and any zoning changes, concurrency requirements, and permits necessary to achieve the highest and best use, and considering any moratorium imposed by executive order, law, ordinance, regulation, resolution, or proclamation adopted by any governmental body or agency or the Governor when the moratorium or judicial limitation prohibits or restricts the development or improvement of property as otherwise authorized by applicable law. The applicable governmental body or agency or the Governor shall notify the property appraiser in writing of any executive order, ordinance, regulation, resolution, or proclamation it adopts imposing any such limitation, regulation, or moratorium;*
- (3) The location of said property;*
- (4) The quantity or size of said property;*
- (5) The cost of said property and the present replacement value of any improvements thereon;*
- (6) The condition of said property;*
- (7) The income from said property; and*
- (8) The net proceeds of the sale of the property, as received by the seller, after deduction of all of the usual and reasonable fees and costs of the sale, including the costs and expenses of financing, and allowance for unconventional or atypical terms of financing arrangements. When the net proceeds of the sale of any property are utilized, directly or indirectly, in the determination of just valuation of realty of the sold parcel or any other parcel under the provisions of this section, the property appraiser, for the purposes of such determination, shall exclude any portion of such net proceeds attributable to payments for household furnishings or other items of personal property.*

Section 193.011, F.S., requires the property appraiser to consider each of these eight criteria. These guidelines present other relevant statutes applicable to each of the eight factors listed above where appropriate.

Section 193.011, F.S. is specific to real property; the factors for valuation of land classified for agricultural use are listed in s. 193.461(6), F.S. The *Agricultural Classified Use Real Property Appraisal Guidelines* provide guidance for use valuation of such land.

In addition to the eight statutory criteria for the derivation of just value, there are four determinative legal standards for appraisal development and reporting for the purpose of ad valorem taxation in Florida. Those determinative standards are described in ss. 194.301 and 194.3015, F.S. The standards are:

- 1) Compliance with professionally accepted appraisal practices
- 2) Avoidance of arbitrarily different appraisal practices within groups of comparable property within the same county
- 3) Avoidance of superseded case law
- 4) The correct application of an appropriate appraisal methodology

Property appraisers should be aware that ss. 194.301 and 194.3015, F.S., make clear the Florida Legislature's intent to supersede contradicting case law. Specifically, s. 194.301(1), F.S., states: "*The provisions of this subsection preempt any prior case law that is inconsistent with this subsection*" and s. 194.3015(1), F.S., provides: "*... any cases published since 1997 citing the every-reasonable-hypothesis standard are expressly rejected to the extent that they are interpretative of legislative intent.*" Yet, some case law does not apply current statutory standards and instead reflects the statutorily superseded burden of proof. While it is not practical to include an exhaustive list of superseded case law in these guidelines, some examples of such obsolete case law applying the superseded burden of proof legal standard include:

Powell v. Kelly, 223 So. 2d 305 (Fla. 1969)

City National Bank v. Blake, 257 So.2d 264 (Fla. 3d DCA 1972)

Deltona Corp. v. Bailey, 336 So.2d 1163, 1167 (Fla. 1976)

Blake v. Xerox, 447 So.2d 1348 (Fla. 1984)

Bystrom v. Whitman, 488 So.2d 520, 521 (Fla. 1986)

Bystrom v. Bal Harbour 101 Condominium Association, Inc., 502 So.2d 1312 (Fla. 3d DCA 1987)

Walmart v. Todora, 791 So. 2d 29,30 (Fla. DCA 2001)

Mazourek v. Walmart, 831 So.2d 85, 91 (Fla. 2002), quoting Walmart v. Todora

Fla. Dept. of Revenue v. Howard, 916 So.2d 640 (Fla. 2005)

In re Lifestream Technologies, LLC, 337 B.R. 705, 710 (Bkrtcy. M.D. Fla. 2006), quoting Mazourek v. Walmart

The Department publishes informational bulletins on statutory changes that may affect assessment practice in Florida, however property appraisers cannot rely on the bulletins as the only source of information. The bulletins are electronically communicated to property appraisers at the time of publication and are subsequently archived in the Department's tax law library located [at here: floridarevenue.com/TaxLaw/Pages/results.aspx](http://floridarevenue.com/TaxLaw/Pages/results.aspx).

Section 193.023, F.S., lists duties of the property appraiser in making assessments. It states:

***Duties of the property appraiser in making assessments. —***

- (1) *The property appraiser shall complete his or her assessment of the value of all property no later than July 1 of each year, except that the department may for good cause shown extend the time for completion of assessment of all property.*
- (2) *In making his or her assessment of the value of real property, the property appraiser is required to physically inspect the property at least once every 5 years. Where geographically suitable, and at the*





*discretion of the property appraiser, the property appraiser may use image technology in lieu of physical inspection to ensure that the tax roll meets all the requirements of law. The Department of Revenue shall establish minimum standards for the use of image technology consistent with standards developed by professionally recognized sources for mass appraisal of real property. However, the property appraiser shall physically inspect any parcel of taxable or state-owned real property upon the request of the taxpayer or owner.*

- (3) In revaluating property in accordance with constitutional and statutory requirements, the property appraiser may adjust the assessed value placed on any parcel or group of parcels based on mass data collected, on ratio studies prepared by an agency authorized by law, or pursuant to regulations of the Department of Revenue.*
- (4) In making his or her assessment of leasehold interests in property serving the unit owners of a condominium or cooperative subject to a lease, including property subject to a recreational lease, the property appraiser shall assess the property at its fair market value without regard to the income derived from the lease.*
- (5) In assessing any parcel of a condominium or any parcel of any other residential development having common elements appurtenant to the parcels, if such common elements are owned by the condominium association or owned jointly by the owners of the parcels, the assessment shall apply to the parcel and its fractional or proportionate share of the appurtenant common elements.*
- (6) In making assessments of cooperative parcels, the property appraiser shall use the method required by s. 719.114.*

Florida law may establish jurisdictional exceptions to some professionally accepted appraisal practices described in published appraisal and assessment standards (see section 2.2 below). The property appraiser is responsible for ensuring the valuation and assessment of real property in the county comply with Florida ad valorem tax law.

**2.2 Other Sources of Appraisal Guidance.** Property appraisers should consult other professionally accepted sources of appraisal guidance, such as the *Uniform Standards of Professional Appraisal Practice* (USPAP), published and maintained by the Appraisal Standards Board, a board of the Appraisal Foundation. Property appraisers should understand and apply relevant USPAP standard rules to the extent they do not conflict with Florida law. USPAP standard rules 5 and 6 address mass appraisal, while standard rules 1 and 2 address single appraisal.

The technical standards published by the International Association of Assessing Officers (IAAO) are another valuable source of guidance. The IAAO is a nationally and internationally recognized professional association of assessment and mass appraisal professionals. Property appraisers should understand and apply the relevant assessment standards to the extent they do not conflict with Florida law. The primary IAAO technical standards for assessment of real property are: the *Standard on Mass Appraisal of Real Property*, the *Standard on Ratio Studies*, the *Standard on Verification and Adjustment of Sales*, and the *Standard on Data Quality*. These technical standards are the source for a variety of topics covered in these guidelines. In addition, IAAO publishes a glossary of terms, entitled *IAAO Glossary for Property Appraisal and Assessment, Third Edition*, which is the source for the majority of definitions provided in Addendum A of these guidelines.

The Appraisal Institute is a renowned professional association and a leading publisher of property appraisal and property valuation textbooks and courses. Their primary textbook, *The Appraisal of Real Estate, 15<sup>th</sup> Edition*, is the source of several valuation concepts and standards in these guidelines. The Appraisal Institute also publishes *The Dictionary of Real Estate Appraisal, 7<sup>th</sup> Edition*, which is another source for definitions provided in Addendum A of these guidelines.

The property appraiser is responsible for understanding and adhering to professionally accepted appraisal practices and appropriate appraisal methodologies to ensure that current standards of practice, as prescribed by Florida ad valorem tax law and the professional organizations cited above, are followed in arriving at just values.

**2.3 Foundations of Mass Appraisal in Florida.** Mass appraisal provides a structure for property appraisers to value large quantities of properties with a variety of uses as of the date of assessment. The process systematically considers the just values of other property within groups for equity. Because just valuations of real property for ad valorem tax purposes in Florida are generally performed using mass appraisal, these guidelines focus on the real property mass appraisal process.

*“Mass appraisal refers to methods that have been developed to solve large-scale valuation problems, such as when many properties must be appraised for the same purpose, often as of the same date and at low per-property cost. Mass appraisal is characterized by standardized procedures, common data, and statistical testing. It is a challenging activity rooted in economics that draws on statistical and spatial analysis of data from property markets. Like all spheres of appraisal, it requires experience and judgment.”<sup>1</sup>*

*“Market value for assessment purposes is generally determined through the application of mass appraisal techniques. Mass appraisal is the process of valuing a group of properties as of a given date and using common data, standardized methods, and statistical testing. To determine a parcel’s value, assessing officers must rely upon valuation equations, tables, and schedules developed through mathematical analysis of market data. 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 are correct, complete, and up-to-date. Properly administered, the development, construction, and use of a CAMA system results in a valuation system characterized by accuracy, uniformity, equity, reliability, and low per-parcel costs. Except for unique properties, individual analyses and appraisals of properties are not practical for ad valorem tax purposes.”<sup>2</sup>*

To fulfill the statutory duty to value real property, property appraisers may leverage the use of mass appraisal techniques. Mass appraisal is recognized by Florida ad valorem tax law as a professionally accepted appraisal practice (see ss. 193.023(2)(3) and 194.301(1), F.S.).

The following sections discuss fundamental topics relevant to the annual assessment of real property in Florida. These include:

- Real property rights
- Purpose and intended use
- Intended users
- Date of assessment
- Comparison of single-property appraisal and mass appraisal
- Education and training of assessment personnel

---

<sup>1</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 1.

<sup>2</sup> International Association of Assessing Officers, *Standard on Mass Appraisal of Real Property* (Kansas City, MO: International Association of Assessing Officers, 2017), page 1.

**2.3.1 Real Property Rights.** For ad valorem tax purposes in Florida, the real property rights to be valued are the unencumbered fee simple estate, unless specified otherwise.<sup>3</sup>

**2.3.2 Purpose and Intended Use.** The purpose of the annual valuation of real property is to produce just valuations of the unencumbered fee simple estate in real property, as of the date of assessment. The intended use of the annual just valuation of real property is to provide a basis for ad valorem taxation of real property according to Florida law, administrative rules, and regulatory activities. This annual just valuation of real property is not intended and should not be used for any other purpose.

**2.3.3 Intended Users.** The intended users of the annual real property valuation performed by property appraisers include: the real property taxpayers of each county, the Department, tax collectors, taxing authorities, and the Auditor General.

**2.3.4 Date of Assessment.** Section 192.042(1), F.S., requires property appraisers to assess all real property according to its just value “on January 1 of each year.”

**2.3.5 Comparison of Single-Property Appraisal and Mass Appraisal.** *“Mass appraisal is the systematic appraisal of groups of properties as of a given date using standardized procedures and statistical testing. In contrast, single-property appraisal, or fee appraisal, is the valuation of a particular property as of a given date. The valuation steps in both approaches are similar, but market analysis and quality control are handled differently.”*<sup>4</sup> Single-property appraisal and mass appraisal are similar and follow a similar process; they differ primarily in scope and quality control. *“Both mass appraisal and single-property appraisal are exercises in applied economic analysis. They represent logical, systematic methods for collecting, analyzing, and processing data to produce intelligent, well-reasoned value estimates.”*<sup>5</sup>

Both single-property appraisal and mass appraisal are used by property appraisers. *“Typically, mass appraisal is used to produce the initial values in a revaluation. Single-property appraisal can be used to defend assessed values on appeal and to appraise special-purpose properties not easily valued by mass appraisal. Both mass appraisal and single-property appraisal require market research. The principal differences are in scale and in the nature of quality control.”*<sup>6</sup>

Depending on the circumstances and available resources, property appraisers may use single-property appraisal techniques for individual properties. The methods and procedures in these guidelines are also generally applicable to single-property appraisal of real property for ad valorem tax purposes in Florida.

**2.3.6 Education and Training of Assessment Personnel.** Proper education and training of personnel involved in the real property mass appraisal process are essential to a reliable mass appraisal system. Ideally, training programs are:

- Tailored to the needs of the property appraiser’s jurisdiction
- Designed for each function in the mass appraisal process
- Based on thorough knowledge of Florida ad valorem tax law and real property mass appraisal processes and procedures

<sup>3</sup> See *Schultz v. TM Florida-Ohio Realty Ltd Partnership*, 577 So.2d 573 (Fla. 1991).

<sup>4</sup> International Association of Assessing Officers, *Property Assessment Valuation* (Kansas City, MO: International Association of Assessing Officers, 2010), page 403.

<sup>5</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 7.

<sup>6</sup> *Ibid*, page 6.

USPAP's Standards Rule 5-1 clearly states the importance of education and training in order to produce credible mass appraisal valuation:

*"To keep abreast of [...] changes and developments, the appraisal profession is constantly reviewing and revising appraisal methods and techniques and devising new methods and techniques to meet new circumstances. For this reason it is not sufficient for appraisers to simply maintain the skills and the knowledge they possess when they become appraisers. Each appraiser must continuously improve his or her skills to remain proficient in mass appraisal."*<sup>7</sup>

Effective education and training for county management and staff are essential to an accurate and equitable mass appraisal process. Education and training should be targeted for development of appropriate and resulting knowledge and skills to apply in learned are used throughout the mass appraisal process. Education is accomplished primarily through courses offered by professional organizations. Training may be accomplished through seminars, in-house training, and on-the-job training. These guidelines may be part of an education and training program for county management and staff.

Section 195.002, F.S., states in part *"The supervision of the department shall consist primarily of aiding and assisting county officers in the assessing and collection functions, with particular emphasis on the more technical aspects. In this regard, the department shall conduct schools to upgrade assessment skills of both state and local assessment personnel."* The schedule of courses offered by the Department are available at here: [floridarevenue.com/property/Pages/Cofficial\\_Training.aspx](http://floridarevenue.com/property/Pages/Cofficial_Training.aspx).

---

<sup>7</sup> Appraisal Standards Board, *Uniform Standards of Professional Appraisal Practice* (Washington, DC: The Appraisal Foundation, 2024), page 35.

### 3.0 THE MASS APPRAISAL PROCESS IN FLORIDA

Definitions for these key mass appraisal terms are available in Addendum A:

Ad valorem tax  
Assessment roll

Fee simple  
Just value

Personal property  
Ratio study

**3.1 Overview.** These guidelines address the steps for an effective mass appraisal process for just valuations of real property in Florida. The steps are not necessarily done in the sequence [presented given](#) since many of these steps are ongoing and may be performed not only sequentially, but also concurrently and interactively.

**3.2 Annual Just Valuation Cycle.** Property appraisers have many deadlines and significant calendar requirements they must meet, several of which apply to operations other than the just valuation of real property. These guidelines describe the activities and timeframes involved in just valuation. This is a limited description provided as a brief overview, [and](#) users should not rely solely on it for regulatory compliance.

The assessment date, or date of value, is January 1. Real property assessment for ad valorem tax purposes in Florida is an annual process. The scope of the mass appraisal in any given year includes:

- Updating the just values of the previous year
- Producing just values for newly platted land, new construction, parcels with changes in land use regulations, new parcels resulting from splits and combinations, etc.
- Preparing and submitting assessment rolls to the Department
- Responding to study results, evaluations, procedures reviews, or report findings from the Department
- Preparing and mailing [Truth in Millage truth in millage](#) (TRIM) notices to taxpayers
- Participating in [value adjustment board \(VAB\)](#) proceedings
- Communicating with interested parties, including taxpayers, taxing authorities, elected and appointed officials

The process of updating just values for existing parcels and producing just values for new parcels is an independent function of the property appraiser and staff. It includes collecting and managing data, qualifying or disqualifying real property transfers, discovering and classifying property, defining market areas, specifying and calibrating valuation models, applying adjustments to reflect market changes over time, and conducting ratio studies and other applicable analyses.

Property appraisers are required to prepare and submit assessment rolls to the Department several times a year and respond to study results, evaluations, procedures reviews, or report findings from the Department. The Department communicates these requirements and the standards for the evaluation of the tax rolls in the annual [Tax Roll Production, Submission, and Evaluation Standards](#). The standards are sent annually to property appraisers at the time of publication and are available online at [this location](#): [floridarevenue.com/property/Pages/Cofficial\\_CompleteSubRollEval.aspx](http://floridarevenue.com/property/Pages/Cofficial_CompleteSubRollEval.aspx).

**3.3 Identification of Real Property.** The first step in the valuation process is to identify the real property, as defined by s. 192.001(12), F.S., to be assessed. Just valuations should exclude ~~personal property~~, as defined in s.192.001(11), F.S.

The Department prescribes the parcel data required for the assessment rolls in the [Tax Roll Production, Submission, and Evaluation Standards](#). The real property assessment roll is comprised of the Name-Address-Legal (NAL) data file and the sale data file (SDF). The NAL has 92 data fields while the SDF has 14. Please refer to the [Tax Roll Production, Submission, and Evaluation Standards](#) for the details of each field. Property appraisers



must determine if additional parcel data, beyond what is required by the Department for the real property assessment rolls, should be collected and maintained to credibly value the real property in the jurisdiction. A summary of the basic data requirements is provided here.

Each real property parcel in the county must have a unique parcel identification code. It should be based on a parcel coding system applied uniformly throughout the county. Additional parcel data includes physical property address, owner name(s) and mailing address(es), a legal description, geographic information (location, land features, and size), improvement details (type, age, size, quality, and condition), and other property characteristics.

The property appraiser must evaluate a property's use and assign a land use code for each parcel of real property (see section 6.1 of these guidelines). To foster credible valuation and accurate assessment, property appraisers may apply additional internal land use codes appropriate for the property types in the jurisdiction. If a parcel has two or more land uses, the assigned land use code should represent the parcel's predominant use.

**3.4 Property Inspection.** Section 193.023(2), F.S., requires property appraisers to inspect real property every five years. This statute allows property appraisers to use image technology in lieu of physical inspection where geographically suitable. The minimum technology standards for physical inspection are provided in the Department's annual [\*Tax Roll Production, Submission, and Evaluation Standards\*](#).

Property appraisers should inspect properties as frequently as necessary to produce accurate and credible valuations of real property. In the event of a natural disaster, the property appraiser should attempt to reinspect all affected parcels to document damage caused by the disaster as of January 1 and consider the impact it may have on the just value.

The Department performs data checks and random sampling to ensure property inspections are completed according to statute.



## 4.0 MASS APPRAISAL DATA

Definitions for these key mass appraisal data terms are available in Addendum A:

Arm's-length transaction	General data	Quality control
Cadastral map	Market participants	Ratio study
CAMA system	Measure of central tendency	Specific data
Data edit	Qualified sale	Stratification
Entrepreneurial profit	Quality assurance	

**4.1 Overview of Mass Appraisal Data.** All data used in the mass appraisal process must be as complete, accurate, and consistent as possible. The following excerpts emphasize both the relative and absolute importance of data collection, management, and quality control in the mass appraisal process.

*"Quality control is critical; the data (must be) thoroughly edited and tested to ensure their consistency and accuracy before they are used for valuation. The quality of the available data, more than anything else, determines valuation accuracy and the effectiveness of the revaluation."*<sup>8</sup>

*"The data management system is the heart of the mass appraisal system and should be carefully planned and designed. Quality control is vital because the accuracy of the values depends on the reliability of the data from which they were generated."*<sup>9</sup>

*"The quality of characteristics data, more than anything else, determines the reliability of values generated in the reappraisal. ... A field canvass requires organization, planning, and close supervision. In-office preparation, selection and training of staff, entry and validation of collected data, and quality control should all be carefully planned."*<sup>10</sup>

*"The findings of a ratio study can only be as accurate as the data used in the study."*<sup>11</sup>

Assuring data completeness and accuracy should be an ongoing task in the mass appraisal process. It is the responsibility of all participants. Participants in the annual mass appraisal process should verify to take all reasonable steps to verify and assure the completeness and accuracy of all applicable legal, physical, and economic data.

Awareness and understanding of the basic categories of mass appraisal data facilitates clear thinking, consistency, and quality control in the mass appraisal process. Three basic and interactive categories of mass appraisal data are legal, physical, and economic. Examples of legal data include zoning information, deeds, subdivision plats, and building permits. Examples of physical data include improvement type and size, parcel size, and neighborhood. Examples of economic data include costs, sale prices, rents, and operating expenses.

Data is vital to the assessment responsibilities of property appraisers. The property appraiser should take steps to secure and protect data from theft, corruption, damage from catastrophic events, and loss of access during emergency situations. Preventative measures and solutions may include cloud storage, remote access abilities,

<sup>8</sup> International Association of Assessing Officers, *Property Assessment Valuation, Third Edition* (Kansas City, MO: International Association of Assessing Officers, 2010), page 408.

<sup>9</sup> Ibid, pages 405-406.

<sup>10</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), pages 55, 57-58.

<sup>11</sup> International Association of Assessing Officers, *Standard on Ratio Studies* (Kansas City, MO: International Association of Assessing Officers, 2013), page 9.

insurance, and well-developed ~~back-up~~ backup procedures and strategies. Additionally, steps must be taken to ensure computer-assisted mass appraisal (CAMA) system software is ~~stable, and reliable, and that~~ data is accessible.

**4.2 Data Collection and Management.** Data collection and management are the most expensive and time-consuming part of the mass appraisal process. Property appraisers should carefully determine what data to collect and how to manage the data. The considerations for making these decisions may include:

- The number and type of real property parcels involved
- The quality and quantity of available data
- The quality and quantity of available resources
- The requirements of the valuation approach(es) used
- The capabilities of the CAMA system used
- Florida ad valorem tax law

**4.3 General Data.** General data useful for the real property mass appraisal process may include: articles from local news publications, economic reports, planning information, and real property market reports. These sources may contain information such as:

- Proposed developments
- Proposed changes in zoning or land uses
- Demolitions of real property
- Real property rentals, vacancies, listings, and sales
- Information on real property expenses
- Market and neighborhood trends
- Market participants' perceptions, expectations, and preferences

General data may not always be applied directly in the appraisal process, ~~but it is~~ It is, however, helpful to be aware of the information, as it can affect the perceptions and expectations of market participants. It is important to consider that these sources may sometimes contain incomplete or inaccurate information for appraisal purposes, but still provide useful leads for additional research.

**4.4 Specific Data.** One or more categories of specific data may not apply to a particular group of property. Categories of specific real property appraisal data include:

- Title transfer documents
- Cadastral mapping data
- Aerial photography
- Regulatory data
- Physical characteristics
- Cost and depreciation data
- Sale data
- Income data

**4.4.1 Title Transfer Documents.** To maintain accurate ownership and other basic information on real property parcels such as addresses, legal descriptions, and assessment maps, property appraisers must continually collect source documents transferring title to real property. These documents may also provide information on real property sales (see section 4.4.7 of these guidelines). Title transfer documents primarily include deeds but may also include other types of documents such as articles of agreement, judgments, and certificates of title. The primary source for these documents is the clerk's office in each county. The clerk's office is responsible for recording and maintaining public records. Property appraisers should facilitate the timely receipt of all recorded



documents pertaining to real property transfers, as well as all orders of taking. The information from title transfer documents should be processed completely, accurately, and timely.

**4.4.2 Cadastral Mapping Data.** Rule 12D-1.009, F.A.C., requires each property appraiser to maintain property ownership maps (cadastral maps). Cadastral maps should show the legal description boundary, parcel identifier, and related information on each parcel of real property in the county for assessment purposes. These maps should also show features items such as roads, streets, and major bodies of water.

The primary sources of information used to produce cadastral maps are title transfer documents, survey books, and recorded subdivision plats. The cadastral mapping process should be designed to meet the needs of end-users such as field staff and appraisal analysts.

Property appraisers should facilitate the timely receipt and processing of all documents and information required to maintain complete, accurate cadastral maps in accordance with the [Florida Cadastral Mapping Guidelines](#) (located here: at [floridarevenue.com/property/Pages/Cofficial\\_GIS.aspx](http://floridarevenue.com/property/Pages/Cofficial_GIS.aspx)) and rule 12D-1.009, F.A.C.

The Department annually reviews GIS/mapping data, which is due by April 1 each year. Property appraisers should have an established and continuous quality control process to effectively resolve errors, omissions, and other problems that may arise during the ongoing maintenance of cadastral maps.

**4.4.3 Aerial Photography.** Rule 12D-1.009, F.A.C., requires each property appraiser to maintain aerial photography suitable for assessment needs. Aerial photography is used to ensure that all real property is listed on assessment rolls. Section 195.022, F.S., requires the Department to furnish aerial photography to property appraisers at least once every three years. Some counties opt to obtain aerial photography from private vendors. Aerial photography from other sources must meet the standards published in the [Florida County Digital Orthoimagery Program Standards](#) (located here: at [floridarevenue.com/property/Pages/Cofficial\\_GIS.aspx](http://floridarevenue.com/property/Pages/Cofficial_GIS.aspx)).

Aerial photography is useful for locating and analyzing real property, especially vacant land. Additionally, it can be used to identify previously undiscovered improved property by comparing recent photographs with older ones those of a prior period. For field inspections and appraisal research, it is helpful to have aerial photographs accurately overlaid with cadastral maps.

When real property is damaged due to disaster, aerial photography may be helpful to identify areas requiring reinspection to document damage caused by the disaster (see section 3.4 of these guidelines).

**4.4.4 Regulatory Data.** County or municipal agencies are the primary sources for regulatory data. Property appraisers should work with local government agencies to ensure the timely receipt of all regulatory data required by law, regulations, and the annual real property appraisal process. Property appraisers should establish office procedures that ensure all relevant regulatory data is processed completely, accurately, and timely.

Regulatory data relevant to mass appraisal include: Building building permits and plans (new construction and renovation), Development development plans and maps, Demolition demolition permits, Current current zoning ordinances and maps, Current current future land use elements and maps, Annexations annexations, and Flood flood zones and maps.

**4.4.5 Physical Characteristics.** Property appraisers must collect and maintain data on certain physical characteristics of all real property to ensure credible valuations in the county. Data on the physical characteristics of real property may be evident in title transfer documents, cadastral maps, aerial photography, and building plans or other regulatory data sources, as discussed above. However, the primary source for physical characteristics is property inspection which is statutorily required every 5 years (see section 3.4 of these guidelines). Other sources, which would require verification, are marketing materials, multiple listing services, and owner-reported details.

The annual [\*Tax Roll Production, Submission, and Evaluation Standards\*](#) document provides [an overview of the data requirements for details for the minimum data on](#) physical characteristics that must be included on the real property assessment rolls. Property appraisers may collect and consider additional land and building characteristics in the mass appraisal process. Property appraisers must determine what physical characteristics, beyond the minimum requirements, should be collected and managed in order to produce credible valuations for each property type and/or market area.

**4.4.6 Cost and Depreciation Data.** Cost and depreciation data for improved real property is necessary for the cost approach (see section 6.4.1 of these guidelines). Cost and depreciation data is collected during field inspection of the property and similar properties. Other sources may include published cost manuals, market-adjusted base rates, and other costs developed from sales ratio studies, and recent, actual, and verified cost data from local contractors and developers.

Cost data should be current and include all direct and indirect costs of construction, including reasonable contractor's profit and [entrepreneurial developer's](#) profit.<sup>12</sup> Cost data should be collected, analyzed, and considered annually. In CAMA systems, replacement costs for real property are directly impacted by the physical characteristics collected by field staff since applied costs vary with the real property type and construction grade (as recorded by field staff).

Depreciation data for mass appraisal may be in the form of depreciation tables applicable to a property group or may be specific to individual property. However, property appraisers should collect and retain documentation to justify any depreciation separately applied to individual property. Sources for depreciation data may include published manuals and market-based depreciation developed from sales ratio studies or other appraisal analyses. Depreciation tables from published manuals may be tested for reasonableness using any available local market data. In CAMA systems, depreciation rates applied to real property are directly impacted by the property characteristics collected by field staff, since applied depreciation varies with the effective age or effective year built (as recorded by field staff).

**4.4.7 Sale Data.** Sale data are the legal, physical, and economic characteristics of real property parcels that have sold and of the corresponding sale transactions, as of the date of sale. Sale data are used throughout the administrative and mass appraisal processes and systems in a property appraiser's office. Sale data may be used in:

- All three approaches to value (see sections 6.4, 6.5, and 6.6 of these guidelines)
- Sales ratio studies for mass appraisal planning and quality assurance (see section 5.8 and Addendum D of these guidelines)
- Explaining real property values to taxpayers
- Defending values in quasi-judicial and judicial proceedings

Title transfer documents recorded with a county clerk of court are the primary source of sale data for property appraisers. Sale data are also an integral part of the assessment roll evaluation function of the Department.

Property appraisers may conduct additional sale data collection activities such as: [Physically physically](#) inspecting properties that have sold, [Researching researching](#) multiple listing services, [Interviewing interviewing](#) market participants, [and Obtaining obtaining](#) sale verification data directly from buyers and/or sellers.

Complete, accurate, and timely processing of sale data are part of assessment administration and the mass appraisal process.

---

<sup>12</sup> [International Association of Assessing Officers, \*Fundamentals of Mass Appraisal\* \(Kansas City, MO: International Association of Assessing Officers, 2011\), page 181.](#)

The following table provides relevant information regarding collecting and managing sale data.

<p><b>Arm's-Length Activity/Sale Qualification:</b> The property appraiser should make an informed determination whether each sale was an arm's-length transaction and whether the sale was for vacant land or improved property.</p> <ul style="list-style-type: none"> <li>Unless a property appraiser finds a sale was not conducted at arm's-length, the property appraiser may presume that the sale prices, which the documentary stamps on deeds indicate, are prima facie evidence of the just value of the sold property.<sup>13</sup> <i>"The position should be taken that all sales are candidates as valid sales unless sufficient information can be documented to show otherwise. If sales are excluded for ratio studies without substantiation, the study may appear to be subjective."</i><sup>14</sup></li> <li>Section 195.0995, F.S., requires property appraisers to properly qualify or disqualify sale transactions and to document the reason for any disqualification in a manner prescribed by the Department.</li> <li>Section 193.114(2)(n), F.S., requires property appraisers to record their determination of whether a sale was arm's-length within 3 months.</li> </ul>
<p><b>Assessment Roll Requirements:</b> Section 193.114(2)(n), F.S., requires property appraisers to include sale data on their tax roll, specifying <i>"for each deed or other instrument transferring ownership of real property and recorded or otherwise discovered during the period beginning 1 year before the assessment date and up to the date the assessment roll is submitted to the department."</i></p> <ul style="list-style-type: none"> <li>In addition to the sale-specific real property assessment roll requirements detailed in that section, the Department provides property appraisers with specific reporting requirements for sale data in the annual <a href="#">Tax Roll Production, Submission, and Evaluation Standards</a> (as allowed under s. 193.1142(1)(b), F.S.).</li> <li>The standards describe the requirements for the Sale Data File (SDF) and include the list of prescribed real property transfer (qualification) codes and their corresponding descriptions for qualifying or disqualifying sales.</li> <li>During the processing and qualification of sale data, property appraisers may use other coding schemes but must translate them to the Department's prescribed coding system on the SDF the property appraiser submits to the Department. The property appraiser's coding system may be useful for accountability and quality control in sale data management.</li> </ul>
<p><b>Sale History:</b> A separate sale file, preferably computerized, for each sale transaction should be retained to preserve, as of the date of sale, the relevant legal, physical, and economic characteristics of both the sold property and the sale transaction.<sup>15</sup> This may help to ensure that the parcel and sale characteristics are maintained and available for appraisal analysis.</p>
<p><b>Parcel Changes After Sale:</b> Property appraisers must ensure that sales of parcels that change prior to the date of assessment are properly identified.</p> <ul style="list-style-type: none"> <li>Changes include parcel splits, combines, new construction, deletion, disaster, remodel/renovation, and legal characteristics (zoning changes for example). If determined to be arm's length, these sales are not appropriate for ratio studies.<sup>16</sup></li> <li>Field inspections and review of regulatory data are helpful in identifying these changes.</li> <li>Addendum C, <i>Managing Sale Data for Parcels that Change</i>, provides guidance for property appraisers to consider.</li> </ul>
<p><b>Multiparcel Sales:</b> Property appraisers must ensure that sales involving multiple parcels are properly identified.</p> <ul style="list-style-type: none"> <li>If determined to be arm's-length, these sales are not appropriate for sales ratio studies because of the technical difficulty in matching the relevant legal, physical, and economic characteristics of all sold parcels with those of the assessed parcels.</li> <li>The Department excludes all multiple parcel sales from ratio studies.</li> <li>These sales may be arm's-length and useful to property appraisers for valuation purposes and for explaining just values, and these sales should be preserved for such uses.</li> </ul>

<sup>13</sup> See *Southern Bell Telephone and Telegraph Company v. County of Dade*, 275 So.2d 4 (Fla. 1973).

<sup>14</sup> International Association of Assessing Officers, *Standard on Verification and Adjustment of Sales* (Kansas City, MO: International Association of Assessing Officers, 2020), page 12.

<sup>15</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), pages 82-83.

<sup>16</sup> International Association of Assessing Officers, *Standard on Ratio Studies* (Kansas City, MO: International Association of Assessing Officers, 2013), page 9.

The following table provides relevant information regarding collecting and managing sale data.

<p><b>Arm's Length Activity/Sale Qualification:</b> The property appraiser should make an informed determination whether each sale was an arm's length transaction and whether the sale was for vacant land or improved property. Unless a property appraiser finds a sale was not conducted at arm's length, the property appraiser may presume that the sale prices, which the documentary stamps on deeds indicate, are prima facie evidence of the just value of the sold property. <i>"The position should be taken that all sales are candidates as valid sales unless sufficient information can be documented to show otherwise. If sales are excluded for ratio studies without substantiation, the study may appear to be subjective."</i></p> <p>Section 195.0995, F.S., requires property appraisers to properly qualify or disqualify sale transactions and to document the reason for any disqualification in a manner prescribed by the Department.</p> <p>Section 193.114(2)(n), F.S., requires property appraisers to record their determination of whether a sale was arm's length within 3 months, stating, in part:</p> <p><i>"A decision qualifying or disqualifying a transfer of property as an arms length transaction must be recorded on the assessment roll within 3 months after the date that the deed or other transfer instrument is recorded or otherwise discovered. If, subsequent to the initial decision qualifying or disqualifying a transfer of property, the property appraiser obtains information indicating that the initial decision should be changed, the property appraiser may change the qualification decision and, if so, must document the reason for the change in a manner acceptable to the executive director or the executive director's designee. Sale or transfer data must be current on all tax rolls submitted to the department. As used in this paragraph, the term "ownership transfer date" means the date that the deed or other transfer instrument is signed and notarized or otherwise executed."</i></p>
<p><b>Assessment Roll Requirements:</b> Section 193.114(2)(n), F.S., requires property appraisers to include sale data on their tax roll, specifying <i>"for each deed or other instrument transferring ownership of real property and recorded or otherwise discovered during the period beginning 1 year before the assessment date and up to the date the assessment roll is submitted to the department."</i> In addition to the sale-specific real property assessment roll requirements detailed in that section, the Department provides property appraisers with specific reporting requirements for sale data in the annual <a href="#">Tax Roll Production, Submission and Evaluation Standards</a> (as allowed under s. 193.1142(1)(b), F.S.). The standards describe the requirements for the Sale Data File (SDF) and include the list of prescribed real property transfer (qualification) codes and their corresponding descriptions for qualifying or disqualifying sales.</p> <p>During the processing and qualification of sale data, property appraisers may use other coding schemes but must translate them to the Department's prescribed coding system on the SDF the property appraiser submits to the Department. The property appraiser's coding system may be useful for accountability and quality control in sale data management.</p>
<p><b>Sale History:</b> A separate sale file, preferably computerized, for each sale transaction should be retained to preserve, as of the date of sale, the relevant legal, physical, and economic characteristics of both the sold property and the sale transaction. This may help to ensure that the parcel and sale characteristics are maintained and available for appraisal analysis.</p>
<p><b>Parcel Changes After Sale:</b> Property appraisers must ensure that sales of parcels that change prior to the date of assessment are properly identified. Changes include parcel splits, combines, new construction, deletion, disaster, remodel/renovation, and legal characteristics (zoning changes for example). Such sales, if determined to be arm's length, are not appropriate for ratio studies. Field inspections and review of regulatory data are helpful in identifying these changes. Addendum C, <i>Managing Sale Data for Parcels that Change</i>, provides guidance for property appraisers to consider.</p>

**Multiparcel Sales:** Property appraisers must ensure that sales involving multiple parcels are properly identified. Such sales, if determined to be arm's length, are not appropriate for sales ratio studies because of the technical difficulty in matching the relevant legal, physical, and economic characteristics of all sold parcels with those of the assessed parcels. For these reasons, the Department excludes all multiple parcel sales from ratio studies. However, these sales may be arm's length and useful to property appraisers for valuation purposes and for explaining just values, and these sales should be preserved for such uses.

**4.4.8 Income Data.** Income Current actual income data is necessary for the property appraiser to derive market-based indicators for the income approach (see section 6.6.1 of these guidelines). "Rents negotiated near the valuation date best reflect current market rents."<sup>17</sup> This data may include rent income, vacancy and collection loss, operating expenses, capitalization rates, and income multipliers. ~~Commercial property owners and managers are good sources for rent income, vacancy and collection rates, and operating expenses.~~ Property appraisers ~~should actively solicit this information through direct contact and surveys.~~ The collection of capitalization rates and income multipliers generally requires research and verification of sales of income-producing property.

~~Cooperative~~ responses from property owners and their agents are ~~essential~~ to the equitable and fair administration of ad valorem property tax for all taxpayers. Property appraisers and the Department must keep certain types of information from property owners confidential.

Section 195.027(3), F.S., states in part:

*"The property appraiser, the Department of Revenue, and the Auditor General shall be able to obtain access, where necessary, to financial records relating to nonhomestead property which records are required to make a determination of the proper assessment as to the particular property in question. Access to a taxpayer's records shall be provided only in those instances in which it is determined that such records are necessary to determine either the classification or the value of the taxable nonhomestead property. Access shall be provided only to those records which pertain to the property physically located in the taxing county as of January 1 of each year and to the income from such property generated in the taxing county for the year in which a proper assessment is made. All records produced by the taxpayer under this subsection shall be deemed to be confidential in the hands of the property appraiser, the department, the tax collector, and the Auditor General and shall not be divulged to any person, firm, or corporation, except upon court order or order of an administrative body having quasi-judicial powers in ad valorem tax matters, and such records are exempt from the provisions of s. 119.07(1)."*

When sufficient income capitalization data are available, the property appraiser may create a database and organize the data into similar property groups for reference and analysis. These income capitalization data should be reviewed for completeness, accuracy, and consistency, and then reconciled within and among property groups. The reconciliation process is necessary because the information from the various sources may be unclear, incomplete, inaccurate, inapplicable, or unreasonable. Available income capitalization data should be reviewed and updated each year as applicable.

**4.5 Quality Control for Data Collection and Management.** Quality control is an ongoing task and should be a part of all considerations and communications relating to mass appraisal data. ~~Accurate coding of mass appraisal data is a crucial part of effective stratification of real property in a county. Coding means to assign a unique identifier to major characteristics of real property such as property use, geographic unit, construction quality~~

<sup>17</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 174.



grade, and effective age. Coding schemes should be both exhaustive and mutually exclusive. The coding of real property begins with inspecting, classifying, and coding the use of real property for valuation purposes.

Data completeness, accuracy, and consistency at all levels of the mass appraisal organization require constant attention. The property appraiser's office should have continuous, collaborative feedback mechanisms among departments, teams, individuals, and management and staff. This cooperation can address problems and implement corrective actions as needed. Specific items that property appraisers may implement to assure quality control of mass appraisal data include:

- Data collection manuals
- Education and training for management and staff
- Internal procedural reviews
- Internal quality audits
- Data entry edits within CAMA systems
- Data edit reports within CAMA systems
- Exploratory data analysis

**4.5.1 Data Collection Manuals.** A data collection manual, maintained by each county property appraiser office, is a well-documented manual describing in detail all aspects of collecting and coding data on physical characteristics of improved real property. The property appraiser should develop and maintain a data collection manual.<sup>18</sup> It is a useful reference tool that should promote consistency in provides a readily available reference for staff on items such as: field conduct; collection and measurement methods; how to determine qualitative measurements such as construction grade, condition, effective year built, and effective age; and how to apply accurate and consistent coding of property characteristics. The manual should explain available codes for various property types and building features and how to properly choose among them. Data collection manuals should be current, complete, clearly written, and well-illustrated with examples and photographs of construction grades and building features for each property type.

**4.5.2 Education and Training for Management and Staff.** Management and staff should understand how the data are used in the mass appraisal process and best practices for data collection and maintenance why the data should be collected and maintained in a specified way. Relevant education and training are important for management and staff involved in data collection and analysis (see section 2.3.6 of these guidelines). The data collection manual may be the primary training tool for management and staff involved in field data collection. Training for field data collection should include training in the classroom, in the field, and on the job on the job.

**4.5.3 Internal Procedural Reviews.** It may be helpful to implement quality control teams selected from management and staff to review cross-functional processes and procedures to ensure the complete, accurate, and consistent collection and management of mass appraisal data.

**4.5.4 Internal Quality Audits.** Internal quality audits should be a part of every mass appraisal system, especially for field data collection. The audit should implement procedures specified in the data collection manual and any other supporting documentation. If performed consistently, supervisory review may also serve this function. Training programs may address recurring opportunities for improvement that the audits identify.

**4.5.5 Data Entry Edits Within CAMA Systems.** Programmed data entry edits within CAMA systems may help to prevent entering erroneous data and prohibit entering invalid data. Programmed edits should prohibit entering invalid data into CAMA systems. Edits should question and not accept unusual data on the first entry attempt and

---

<sup>18</sup> International Association of Assessing Officers, *Standard on Ratio Studies* (Kansas City, MO: International Association of Assessing Officers, 2013), page 3.

should require manual override by the person entering the data. Examples of programmed data entry edits within CAMA systems may include: hard edits; soft edits; exception edits; range edits; consistency edits; datatype edits; value or table edits; cross edits; and check digits.<sup>19</sup>

**4.5.6 Data Edit Reports Within CAMA Systems.** After mass appraisal data are entered into the CAMA system, programmed data edit reports may be produced to identify and list any missing, unusual, inaccurate, or inconsistent data, which should be corrected. These reports are may be useful tools for ensuring the accuracy and consistency of a mass appraisal database.

**4.5.7 Exploratory Data Analysis.** Exploratory data analysis is may be useful for discovering potential problems in a mass appraisal database (see section 4.7 of these guidelines).

**4.6 Geographic Stratification.** Section 193.114(2)(I), F.S., requires property appraisers to have a market area code on each real property parcel on the assessment roll. Assigning a market area code is known as geographic stratification. Geographic stratification means to divide, or stratify, the real property parcels within a county into groups, or strata, based on geographic influences. Terms that describe these influences may include market areas, sub-market areas, neighborhoods, and corridors. Collectively, these terms are known as geographic units. Geographic stratification is a useful part of a mass appraisal system.

In these guidelines, geographic stratification is discussed in the context of mass appraisal, which may be somewhat different from the discussions of market areas and neighborhoods found in single-property appraisals. Single property appraisers are concerned with the time-distance relationships, or linkages, between different types of real property. Mass appraisers are more concerned with geographically stratifying groups of real property to allow more detailed analysis of specific property groups.

Market areas are generally the first level of geographic stratification. Other levels may include sub-market areas and neighborhoods. A corridor is a geographic unit that may be applied to situations such as all commercial property located along a major street. The [\*Florida Uniform Market Area Guidelines\*](#), (which can be found at here: [floridarevenue.com/property/Pages/Cofficial\\_MOI.aspx](http://floridarevenue.com/property/Pages/Cofficial_MOI.aspx)), address the question of whether different types or similar types of real property should comprise geographic units.

Depending on the situation, geographic unit boundaries may be based on natural features, man-made features, or legal boundaries. Examples of natural boundaries may include rivers and oceans. Examples of man-made boundaries may include: major streets, expressways, subdivisions, canals, changes in real property type, and changes in real property construction quality. Examples of legal boundaries may include future land use classifications, zoning classifications, city limits, and county lines. The considerations for determining geographic unit boundaries may vary by the property types within the geographic unit.

Geographic stratification has may have multiple uses in the mass appraisal process. These uses may include:

- Creating modeling areas, independent locational variables, or analysis units for mass appraisal applications
- Creating specific property groups for quality assurance activities such as sales ratio studies and evaluating assessment performance for unsold properties
- Providing a useful criterion for appraisal research
- Serving as a work allocation tool for mass appraisal field operations

---

<sup>19</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), pages 42-44.

**4.7 Exploratory Data Analysis.** Exploratory data analysis means to analyze the mass appraisal data, which has already been collected, coded, and computerized, in order Property appraisers should conduct exploratory data analysis on collected, coded, and digitized mass appraisal data to identify and understand:

- The number, type, and classifications of parcels within real property groups
- The legal, physical, and economic characteristics within real property groups
- The tendencies and relationships within and among real property groups

The following excerpt describes the importance of data analysis for ratio studies, one of the most important mass appraisal tools.

*“The type of properties, market conditions, and composition of the population in terms of age, size, value range, and so forth are essential to the proper design of the study and interpreting the results.”<sup>20</sup>*

The analysis of mass appraisal data will help to facilitate the application of professionally accepted appraisal practices and appropriate methodologies in the mass appraisal process.

The application of the analysis techniques in this section may vary significantly based on factors such as the number of real property parcels of each type, the availability of market data, and the availability of resources. The efficient application of these analytical tools requires adequate technical resources, adequate computer skills, and mass appraisal knowledge. These analyses may be programmed and performed within CAMA systems, or the mass appraisal data may be downloaded from CAMA systems and analyzed using spreadsheet or statistical software. Not all analytical methods presented here will apply in a particular situation.

The complete, accurate, and consistent coding of the factors having the most influence on the value of real property allows useful stratification, which is required for effective exploratory data analysis. Stratification yields property groups with one or more shared characteristics that are useful for data analysis.

Exploratory data analysis may be helpful for a variety of uses in the mass appraisal process. Some of these uses may include:

- Facilitating the accurate and efficient design and interpretation of sales ratio studies
- Developing indicators for items such as property type, quality grade, size, age, unit rents, unit expenses, unit prices, and unit values within real property strata as training and research references for management and staff involved in data collection, sale analysis, valuation analysis, and quality assurance activities
- Determining typical combinations of property characteristics within strata to use as references for training, research, and data cleaning
- Revealing characteristics of a property population for comparison with a sample’s (e.g., sold properties) characteristics to help determine the degree of representativeness for appraisal analysis
- Facilitating an understanding of local real property inventory and market tendencies, and provide a basis for applying professionally accepted appraisal practices and appropriate appraisal methodologies in the mass appraisal process

The tools available for analyzing mass appraisal data within properly stratified real property groups may include measures of central tendency, measures of dispersion, and one- or two-variable profiles, charts, and graphs.

---

<sup>20</sup> International Association of Assessing Officers, *Standard on Ratio Studies* (Kansas City, MO: International Association of Assessing Officers, 2013), page 10.



**4.7.1 Measures of Central Tendency.** Measures of central tendency may be calculated for items such as building size, building age or year built, quality grade, land size, price per square foot, price per acre, price per lot, rent per square foot, and operating expenses per square foot. The three common measures of central tendency are the mean, median, and mode.<sup>21</sup> Comparing measures of central tendency among real property strata may clarify market tendencies.

**4.7.2 Measures of Dispersion.** Measures of dispersion, also called measures of spread, are descriptive statistics that generally reflect the degree of dispersion or variation within a data set. These indicators may also be calculated for items such as building size, building age or year built, quality grade, land size, price per square foot, price per acre, price per lot, rent per square foot, and operating expenses per square foot. Measures of dispersion for mass appraisal may include ranges, quartiles, percentiles, average deviations, coefficients of dispersion (COD), standard deviations, and coefficients of variation.<sup>22</sup> Comparing measures of dispersion among real property strata may clarify market tendencies.

**4.7.3 One-Variable Profiles, Charts, and Graphs.** These analytical tools include arrays, frequency distributions, bar charts, pie charts, and histograms.<sup>23</sup> They visually depict the data set for a single variable such as building size or price per square foot. For some, these tools may provide a more useful graphic depiction of a data set's dispersion than relying solely on the numeric measures of central tendency and dispersion.

**4.7.4 Two-Variable Profiles, Charts, and Graphs** These analytical tools include cross tabulations, box plots, scatter plots, and line charts.<sup>24</sup> They may be useful for analyzing the relationship between two variables.

---

<sup>21</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 111-113.

<sup>22</sup> Ibid, pages 115-121.

<sup>23</sup> Ibid, pages 121-126.

<sup>24</sup> Ibid, pages 126-133.

# 5.0 QUALITY ASSURANCE FOR MASS APPRAISAL

Definitions for these key mass appraisal data terms are available in Addendum A:		
Coefficient of dispersion	Model calibration	Reconciliation
Data edit	Price-related differential (PRD)	Sales ratio study
Just value	Quality assurance	Spatial analysis/Thematic maps
Level of assessment (LOA)	Real property	Stratification
Mass appraisal		

**5.1 Quality Assurance Overview.** The mass appraisal quality assurance process may involve:

- Valuation planning
- Organization and communication
- Personnel management
- Education and training
- Data collection and management
- Valuation edits, data edits, and reviews
- Sales ratio studies
- Model calibration
- Value reconciliation
- Just value comparison
- Taxpayer communication and value appeals

Professionally accepted appraisal practices and appropriate appraisal methodologies are required throughout the quality assurance process.

**5.2 Valuation Planning.** Valuation planning is part of quality assurance for the annual real property mass appraisal process. It helps to determine the scope of the required appraisal activities for the annual appraisal cycle. Valuation planning also helps to determine the resources needed, and to prioritize and maximize the use of limited resources. Property appraisers must have the resources necessary for compliance with Florida ad valorem law and should plan accordingly. Valuation planning is useful as a way of meeting regulatory deadlines and other time-sensitive requirements for the annual production of real property assessment rolls. Project management tools and methods may be useful for valuation planning. A sales ratio study may be part of valuation planning (see section 5.8 below). In addition to sales ratio studies, other market research and analysis may be required to determine the appropriate scope of appraisal for properly stratified real property groups. Once the scope is determined, value changes should be made to all property affected by the factor causing the need for the change, not to individual properties that may appear on a sales ratio study.

**5.3 Organization and Communication.** A well-run organization is key to assuring the assessment activities produce credible results. As the lead manager, the property appraiser is responsible for the overall organization of the office and assessment activities including proper planning, budgeting, organizing, and procedure control within the assessment office. Effective internal communication systems among departments or functional units in a property appraiser’s office may reveal specific data or appraisal items requiring attention. Effective communication between valuation staff and CAMA system staff is especially important.

**5.4 Personnel Management.** Important aspects of personnel management that may affect the quality and credibility of assessments include establishing and maintaining a productive and efficient organizational structure; hiring, training, motivating, and retaining effective staff; clearly defining staff roles and responsibilities;

and documenting procedures. Communication and delegation are also key aspects of personnel management. As the lead manager, the property appraiser is responsible for ensuring assessment office personnel perform effectively and efficiently.

**5.5 Education and Training.** Education and training are essential in the mass appraisal process and to ensure credible mass appraisal valuations that are fair and equitable. As the lead manager, the property appraiser is responsible for ensuring assessment staff are adequately trained and resources are available for continuing education. See sections 2.3.6 and 4.5.2 of these guidelines for more information on education and training.

**5.6 Data Collection and Management.** Section 4.0 of these guidelines describes systems and processes for collecting and managing complete, accurate, and consistent data essential to the Florida mass appraisal process. The data is the most important component of an effective mass appraisal system. Evaluating the quality of mass appraisal data collection and management is the first of two steps in evaluating whether a mass appraisal process is effective. A detailed discussion of quality control for mass appraisal data is in section 4.5 of these guidelines. The second step is evaluating whether the just valuations of real property derived from the mass appraisal data comply with Florida ad valorem tax law. Valuation edits, data edits, data reviews, sales ratio studies, and model calibration are tools to evaluate the just valuations of real property (see sections 5.7, 5.8, and 5.9 of these guidelines).

**5.7 Valuation Edits, Data Edits, and Reviews.** Valuation and data edits are programmed reports that may be produced in CAMA systems. Designing valuation and data edits involves two primary considerations. The first is to determine determining the criteria for selecting the properties to appear on the report, and the second is to select selecting the data fields and calculations to appear on the report. Valuation edits may show just values and unit just values for real property. These reports allow the user to identify any unusual just value indications such as extremely high or low values, extremely high or low unit values, or unusually high or low changes in value, both in dollar terms and percentage terms. Any parcels with unusual indications may need further review for valuation accuracy and reasonableness, and either validated or corrected. Data edits can identify incorrect or inconsistent information.

Desk reviews may include reviews of valuation and data quality/quantity edits as well as other reviews. As tests of reasonableness, other desk review activities may include calculating measures of central tendency and dispersion for just values and unit just values in properly stratified real property groups, and then comparing these to the same measures for the prices and unit prices of the sold properties in the corresponding real property groups. These measures may be compared for reasonableness and consistency using relative comparison analysis.

Field review may involve physically inspecting individual properties or samples in real property groups with any unusual just value indications, and then updating the CAMA system if the inspection reveals any errors in the property characteristics, change of property use, or shift in market area or geographic stratification. Appraisal staff should make updates to all affected properties, not just to individual properties that may appear on a sales ratio study.

**5.8 Sales Ratio Studies.** Sales ratio studies are useful planning tools and are commonly used quality assurance tools for the mass appraisal process.

As a planning tool, a sales ratio study may not provide complete information on the appropriate scope of appraisal activities in each year; additional market research and analysis may be required. Sales ratio studies for planning purposes may begin with using sales that occurred during the 12-month period immediately preceding the January 1 date of assessment. Initially, sales ratio studies may be run by groups of real property use codes, sorted by sales ratio, and then analyzed to identify any correlation between high or low ratios and other major

property characteristics such as property use code, geographic unit, or size. To obtain more information on the assessment project's required scope, more detailed studies may be conducted based on any specific identified trends. To increase sample size for a particular analysis, these detailed studies may include sales that occurred more than 12 months before the date of assessment. In cases with no specific identified trends between high or low sales ratios and property characteristics, more detailed research and analysis of each sale and the corresponding sold property may be required.

Sales ratio studies may be useful for several quality assurance aspects of the mass appraisal process: monitoring the appraisal work of teams or individuals; evaluating appraisal level and uniformity; and proactively evaluating regulatory compliance.

During the assessment roll evaluation process, the Department performs certain statistical analyses on applicable statutory real property strata. Relevant to these guidelines are three statistical indicators the Department calculates: the level of assessment (LOA), the COD, and the price-related differential (PRD). The annual [Tax Roll Production, Submission, and Evaluation Standards](#) publication contains details for the Department's standards for these indicators (also see Addendum D).

For quality assurance and to proactively evaluate regulatory compliance, property appraisers may also perform these statistical analyses. The Department may also use other statistical indicators in the assessment roll evaluation process. Whether for a planning tool or quality assurance tool, sales ratios may be expressed as percentages. Sales ratio studies may be programmed and performed in CAMA systems, or the mass appraisal data may be downloaded from CAMA systems and the sales ratio studies performed using spreadsheet or statistical software.

There are two primary considerations for designing sales ratio studies for mass appraisal planning or quality assurance purposes. The first is to determine the criteria for selecting which sales appear on the report, and the other is to select which data fields appear on the report.

Addendum D provides an index of topics that property appraisers should consider in preparing for or analyzing results of a sales ratio study. These include:

- Selective reappraisal
- Parcel changes
- Stratification
- Measures of appraisal level
- Adjustment for the eighth criterion
- Adjustment for market changes over time
- LOA
- Appraisal uniformity
- Appraisal equity
- Graphic displays
- Spatial analysis/thematic maps

**5.9 Model Calibration.** *"Model calibration is the process of adjusting mass appraisal formulas, tables, and schedules to the current market. During model calibration, the relationships are quantified, that is, the coefficient (as an amount or percentage adjustment) for each independent variable is determined, for example, dollars per square foot of living area."*<sup>25</sup> Property appraisers should analyze sales ratio study results to determine

---

<sup>25</sup> International Association of Assessing Officers, *Property Assessment Valuation* (Kansas City, MO: International Association of Assessing Officers, 2010), page 415.

appropriate adjustments for model calibration. Spatial analysis and thematic maps are useful model calibration tools. See Addendum D.

**5.10 Value Reconciliation.** *“In mass appraisal, reconciliation involves a determination of which valuation approach or method to emphasize for a given group of properties, for example, a market area or neighborhood.”*<sup>26</sup> *“In general, the approach rooted in the best market evidence and requiring the fewest assumptions is the most reliable.”*<sup>27</sup> In reaching a final conclusion of just value, the factors for consideration may include: the quality and quantity of the data used in each approach; the applicability of each approach used; and the approach or reconciliation that produces the best indicators of appraisal performance. Property appraisers should use professionally accepted appraisal practices and appropriate appraisal methodologies when completing reconciliation.

**5.11 Just Value Comparison.** Sales ratio studies evaluate appraisal performance for sold property. For quality assurance purposes, evaluating appraisal performance for unsold property is helpful. Two practical types of analysis for this evaluation are percent change in just value methods and the unit just value method. The reports may be designed to reflect just value changes from the prior year to the current year for specified groups of real property or for individual properties.

The percent change in value method may have variants for evaluating appraisal performance for unsold properties. One variant involves listing all real property parcels in a properly stratified group, including just values for the current and prior years for all parcels and sale prices for any sold parcels, and calculating the percent change in just value for each parcel. The property appraiser may review these just value percent change indicators for consistency, reasonableness, and validity. The property appraiser may analyze these data sets for significant differences in value changes between sold and unsold property. Any differences or any extreme changes in value may require further research to validate or correct. Another variant of this method involves comparing the average percent change in just value between the sold and unsold subgroups of properly stratified real property groups. Any significant differences in the percent changes in value between the sold and unsold subgroups may require further research to validate or correct.

The unit just value method requires use of the appropriate just value unit of comparison for the property type under analysis. It involves comparing the average unit just values for unsold parcels in properly stratified property groups with those of sold parcels in the same groups. If sold and unsold properties are valued equitably, their average unit values should be similar, other factors held constant. Any significant differences between the average unit just values of sold property and those of unsold property may require further research to validate or correct.

**5.12 Taxpayer Communication and Value Appeals.** Taxpayers’ responses to valuation and assessment are part of the mass appraisal quality assurance process. Property appraisers and their staff should be open to taxpayer communication. Informal inquiries, petitions filed with the county VAB, and litigation are avenues for taxpayers to communicate. Depending on the time of year, informal inquiries may be the preferred form of receiving and responding to taxpayer feedback.

During the 30 to 40-day period after taxpayers receive **truth-in-millage (TRIM)** notices, property appraisers may receive very high volumes of taxpayer inquiries regarding just values. This is an opportunity for taxpayers to ask

---

<sup>26</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 13.

<sup>27</sup> Ibid, page 194.

questions, express concerns, and provide verifiable information regarding the preliminary just valuation of real property.

Value Adjustment Board hearings typically begin a few weeks after TRIM notices are mailed. These hearings are another opportunity for taxpayers to express concerns and provide verifiable evidence in support of changes to preliminary just values.

DRAFT

## 6.0 MASS APPRAISAL VALUATION

Definitions for these key mass appraisal valuation terms are available in Addendum A:

Actual age	External obsolescence <b>Fee simple</b>	Market participants
Contract rent	Functional obsolescence	Model specification
Deferred maintenance	Gross income multiplier (GIM)	Multiple regression analysis (MRA)
Direct capitalization	Highest and best use	Physical deterioration
Effective age	Just value	Replacement cost new <b>(RCN)</b>
<b>Entrepreneurial incentive</b>	Market rent	Yield capitalization

**6.1 Highest and Best Use.** Florida ad valorem tax law guides the scope of highest and best use analysis in the just valuation of real property for ad valorem tax purposes. For just valuation purposes in Florida, present use means the real property's existing use as of the date of assessment. As specified in s. 193.011(2), F.S., the highest and best use and the present use of real property comprise the second of the eight factors property appraisers must consider in determining just value of real property. Specifically, this statute states: *"The highest and best use to which the property can be expected to be put in the immediate future and the present use of the property, taking into consideration the legally permissible use of the property, including any applicable judicial limitation, local or state land use regulation, or historic preservation ordinance, and any zoning changes, concurrency requirements, and permits necessary to achieve the highest and best use, and considering any moratorium imposed ..."*.

The data collection and management activities described in these guidelines are the primary mechanisms by which the property appraiser considers the real property's present use. Assigning the use code to real property is the first step in valuation. The Department's annual [Tax Roll Production, Submission, and Evaluation Standards](#) includes the list of land use codes and descriptions. Property use codes applied to each real property parcel on the assessment roll should reflect the real property's present, or current, use. Unless a change in highest and best use is reasonably probable in the immediate future, the present use may represent the highest and best use of real property. In that case, the highest and best use consideration may be obvious and require no further research or analysis. In other cases, the present use may not be the highest and best use. For example, if a property is subject to a below market lease, the present use should be disregarded since it is not the highest and best use of the unencumbered fee simple estate.

There are four sequential tests for highest and best use considerations.<sup>28</sup> These tests involve consideration of the legally permissible uses, physically possible uses, financially feasible uses, and maximally productive uses within real property groups. Consideration of these four tests is reflected in the property appraiser's annual real property mass appraisal activities. These activities include data collection and management, geographic stratification, exploratory data analysis, application of professionally accepted appraisal practices and appropriate appraisal methodologies, highest and best use considerations, and compliance with current Florida ad valorem tax law. When applied to appraisals for some private sector purposes, the third and fourth tests may involve in-depth market and/or feasibility studies. These studies are beyond the scope of highest and best use considerations required for mass appraisal in accordance with Florida ad valorem tax law.

Highest and best use may shift as a result of changes in zoning and future land use classifications, new subdivisions, improvements to infrastructure, new construction, substantial renovation, demolition, sales, and rentals. These changes may be observed directly through field inspection of real property, or indirectly by reviewing permits, ordinances, and market transactions and tendencies. Mapping these types of changes may

<sup>28</sup> International Association of Assessing Officers, *Property Assessment Valuation, Third Edition* (Kansas City, MO: International Association of Assessing Officers, 2010), pages 29-30.



enhance research and analysis. ~~Because this type of research and analysis is directly focused on the observed behavior of market participants, it is a useful method for considering the highest and best use “in the immediate future” as required by s. 193.011(2), F.S.~~

Highest and best use may change within real property groups. Changes occurring in one area may influence the just value or highest and best use of real property in nearby areas. Typically, many changes in just value occur without resulting in changes in highest and best use. Changes in the legal or actual use may reveal changes in the highest and best use of real property.

**6.2 Overview of Valuation Approaches.** There are three approaches to the valuation of real property:

- The cost less depreciation approach
- The sales comparison approach
- The income capitalization approach

Each of these three approaches has variants, depending in part on whether the subject property is vacant land or improved property, and depending on the considerations discussed below. The methods for valuing vacant land are variants of either the sales comparison approach or the income approach while the methods for valuing improved land are variants of all three approaches. These guidelines do not address all acceptable variants of these approaches that may be used to produce just valuations of real property in compliance with Florida ad valorem tax law. The effectiveness of the valuation approaches in mass appraisal depends in part on reliable data collection and management, effective exploratory data analysis, good market knowledge, professionally accepted appraisal practices and appropriate methodologies, and application of mass appraisal quality assurance tools.

As discussed in section 2.1 of these guidelines, s. Section 193.011, F.S., lists the factors property appraisers must consider in the just valuation of real property for ad valorem tax purposes while ss. 194.301 and 194.3015, F.S., discuss the four determinative legal standards that must be applied in the just valuation process (see section 2.1 of these guidelines). Unless specified otherwise, fee simple estate is the interest in real property to be valued for ad valorem tax purposes in Florida (see section 2.3.1 of these guidelines).

The property appraiser is required by Florida law to use professionally accepted appraisal practices and appropriate appraisal methodologies in determining the method of valuation, which may include developing more than one approach to value. The selection of a valuation approach, or approaches, may vary both within and among counties.

In mass appraisal courses and publications, the terms model structure, model specification, and model calibration are technical alternatives for describing the application of one or more of the three approaches to real property valuation. The following excerpts, from leading appraisal and assessment entities, further address the relationship of valuation models to the three approaches to value.

USPAP's Standards Rule 5-4(b) states:

*“The formal development of a model in a statement or equation is called model specification. Mass appraisers must develop mathematical models that, with reasonable accuracy, represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. The models may be specified using the cost, sales comparison, or income approaches to value. The specification format may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics. Appropriate approaches*



*must be used in appraising a class of properties. The concept of recognized techniques applies to both real and personal property valuation models.”<sup>29</sup>*

IAAO’s *Fundamentals of Mass Appraisal* states:

*“Property valuation models express the forces of supply and demand at work in the local market and seek to explain or predict the market value of properties from available real estate data. They are based on the sales comparison, cost, and income approaches to value.”<sup>30</sup>*

*“Model specification and calibration are distinct steps. Model specification is the design and determination of the mathematical form of the model based on appraisal theory and market analysis. It includes determining relevant data items and selecting the variables to be constructed from them and considered in the model. Model calibration is the process of solving for unknown quantities in a model, for example, construction costs and depreciation in a cost model, valuation rates and adjustments in a sales comparison model, and market rents and capitalization rates in an income model.*

*Model specification comes before model calibration and largely determines the potential accuracy of the model. Model calibration involves determination of the rates and adjustments associated with the variables in the model and testing of the predictive accuracy of the model. If calibration results in unreasonable rates or adjustments or fails to produce acceptable accuracy, the model should be respecified and recalibrated.”<sup>31</sup>*

The Appraisal Institute’s *A Guide to Appraisal Valuation Modeling* states:

*“In essence, valuation models developed for mass appraisal purposes must reflect supply and demand patterns for groups of properties rather than for a single property. Valuation models attempt to perform several related functions:*

- *To predict, replicate, or explain the market value of properties from real estate data*
- *To represent the forces of supply and demand within particular markets*

*To replicate one of the three theories of valuation – the cost approach, the sales comparison approach or the income capitalization approach”<sup>32</sup>*

IAAO’s *Standard on Mass Appraisal* states:

*“Mass appraisal models attempt to represent the market for a specific type of property in a specified area. Mass appraisers must first specify the model, that is, identify the supply and demand factors and property features that influence value, for example, square feet of living area. Then they must calibrate the model, that is, determine the adjustments or coefficients that best represent the value contribution of the variables chosen, for example, the dollar amount the market places on each square foot of living area. Careful and extensive market analysis is required for both specification and calibration of a model that estimates values accurately. Mass appraisal models apply to all three approaches to value: the cost approach, the sales comparison approach, and the income approach.”<sup>33</sup>*

---

<sup>29</sup> Appraisal Standards Board, *Uniform Standards of Professional Appraisal Practice* (Washington, DC: The Appraisal Foundation, 2024), pages 38.

<sup>30</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 249.

<sup>31</sup> Ibid, page 250.

<sup>32</sup> Appraisal Institute, *A Guide to Appraisal Valuation Modeling* (Chicago: Appraisal Institute. 2000), page 6.

<sup>33</sup> International Association of Assessing Officers, *Standard on Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2019), page 6.

**6.3 Land Valuation.** All land parcels, both vacant and improved, must be valued each year for ad valorem tax purposes in Florida. Land values are required for vacant and improved parcels on assessment rolls submitted to the Department (see section 4 of the Department’s annual [Tax Roll Production, Submission, and Evaluation Standards](#)). Accurate and equitable land values are part of a reliable mass appraisal system.

Land valuation relies on proper stratification of land parcels, which, in turn, relies on accurate coding of the primary influences on land value. Land data should be stratified into groups based on three key factors:

- 1) Property use
- 2) Location
- 3) Size

Stratification of land data into groups based on these three factors allows useful land market analysis. Additional stratification may be appropriate depending on the complexity of the appraisal problem and the amount of market data available.

As applied to land valuation, units of comparison are the economic units into which the prices or value indications of land may be divided for appraisal analysis. Selecting the appropriate land unit of comparison for mass appraisal purposes involves consideration of two primary criteria:

- The unit of comparison market participants use most frequently in their decision-making for the land type under analysis
- The unit of comparison resulting in the lowest measures of dispersion within land sale data sets

Before valuation analysis, all land sale data should be compiled by the appropriate unit of comparison.

After land sale data have been appropriately stratified and compiled by units of comparison, analysis of these data may reveal relationships affecting land value. Useful land market analysis techniques may include: plotting and reviewing sale data on maps; calculating and considering measures of central tendency and measures of dispersion; and performing graphic analyses.<sup>34</sup>

*“The sales comparison approach is the most reliable method of land valuation. It involves comparisons and assumes that market evidence is available. Unfortunately, good, reliable sales data are sometimes unavailable. For this reason, the appraiser must resort to other methods of valuation. The alternative methods of land valuation are allocation, abstraction, anticipated use or development, capitalization of ground rent, and land residual capitalization.”<sup>35</sup>*

These guidelines provide general information for valuation of land by the sales comparison approach, allocation, abstraction, capitalization of ground rent, and land residual capitalization in the following subsections. The property appraiser should be familiar with applying these variants of the sales comparison approach and the income approach. These guidelines do not cover land valuation using the anticipated use or development method, which is essentially a discounted cash flow analysis (see section 6.6.4 of these guidelines).

**6.3.1 The Sales Comparison Approach to Land Valuation.** *“The primary methods of land valuation for mass appraisal are applications of the sales comparison approach. The sales comparison approach is always the preferred approach when sufficient sales data are available.”<sup>36</sup>* The sale comparison approach is a set of procedures where the results of arm’s length transactions within properly stratified land groups are analyzed for

<sup>34</sup> International Association of Assessing Officers, *Property Assessment Valuation* (Kansas City, MO: International Association of Assessing Officers, 2010), pages 187-189.

<sup>35</sup> Ibid, page 190.

<sup>36</sup> Ibid, page 187.

just value indications, which then may be applied to all properties in those groups. The sales comparison approach is discussed in section 6.5 of these guidelines.

**6.3.2 The Allocation Method.** The first step in the allocation method is to research and develop typical ratios of land value to total value for an improved property group with land use regulations similar to those of the subject land group. Then, these ratios may be applied to the improved sales in the subject area for an indication of the prices paid for the land. The last step is to use these extracted land prices in the sales comparison approach to land valuation. ←

**6.3.3 The Abstraction Method.** The first step in the abstraction method is to collect and analyze sales of improved property in the subject or similar areas. These improved sold properties should have land use regulations similar to those of the subject land group. The next step is to estimate the contributory value of the improvements to each of the improved sale prices, and then subtract this indicated improvement value from the improved sale prices for an indication of the price paid for the land. The last step is to use these extracted land prices in the sales comparison approach to land valuation.

**6.3.4 The Capitalization of Ground Rent Method.** This method of land valuation requires market rental rates for a land group similar to those of the subject land group. These rented properties are compared to the subject land group to develop an indication of the net market ground rent for the subject land group. The last step is to divide the net market ground rent for the subject land group by a land capitalization rate for an indication of land value for the subject group.

**6.3.5 The Land Residual Technique.** The first step in the land residual technique is to determine the highest and best use of the subject land groups as though vacant. From this, the market net operating income for the hypothetical improved property may be estimated and then divided by an overall capitalization rate, resulting in a value indication for the improved property. The replacement cost new (RCN) of the hypothetical improvements is then subtracted from the estimated value of the improved property, resulting in an indication of value for the subject land group. ←

**6.3.6 Considerations in Land Valuation.** Some situations in land valuation vary from normal reappraisal activities involving existing parcels and may require special attention. Each year, some land parcels may undergo economic change resulting from changes in legal and physical characteristics.

The most common examples of legal changes to land include changes to zoning and future land use classifications. These legal changes may have an impact on the just value of the affected land parcels. The most common examples of physical changes to land include splits, combinations, and new subdivisions (see Addendum C). The property appraiser should review the just value of each affected parcel and make any appropriate just value changes for the effective and subsequent years.

**6.4 The Cost Approach.** The just valuation of real property by the cost approach is calculated by subtracting depreciation from replacement cost new RCN and then adding the just value of the land. The just value of land is discussed in section 6.3 of these guidelines. The effectiveness of the cost less depreciation approach in mass appraisal depends in part on reliable data collection and management, effective exploratory data analysis, good market knowledge, professionally accepted appraisal practices and appropriate methodologies, and application of mass appraisal quality assurance tools. The collection and management of cost and depreciation data is described in section 4.4.6 of these guidelines. In its basic applications, the cost approach is a set of procedures in which the replacement cost new RCN of the improvements is determined, the depreciation of these improvements is determined and subtracted, and the land value is determined and added, for an indication of the just value for the real property. ←

The cost approach relies on proper stratification of real property into strata, or groups, with similar characteristics. Stratification criteria may include property type, construction grade, structural type, or number of stories. The appropriate level of stratification may vary based on the property type involved.

As applied in the cost approach, units of cost are the economic units into which the costs of real property may be divided for appraisal analysis. The most common unit of cost is cost per square foot, although other units of cost such as linear feet or cubic feet may apply in some cases.

**6.4.1 Cost Data/Cost Models.** Cost manuals or web-based subscriptions are available for purchase from various vendors specializing in tracking real property construction costs and maintaining databases of cost information. These cost manuals are useful for mass appraisal because they provide standardized and flexible cost systems that reflect relative costs between items such as property types, construction grades, and building components. The relative costs of these items may be useful for deriving cost adjustments.

CAMA systems may apply many types of **replacement cost new RCN** models. One that is commonly used is an adjusted base rate model in which the **replacement cost new RCN** of real property improvements is determined primarily by multiplying the adjusted base rate by the adjusted building area. This model type begins with an unadjusted base rate, which is the base cost per unit for the effective building area of a main improvement structure.

Any available and applicable local market data may be used to test the accuracy of published cost data. One example is to compare **replacement cost new RCN** from a published manual to any known, reliable, and current local costs and either validating or adjusting the published cost as appropriate. If adequate sale data are available, sales ratio studies may be useful for adjusting cost data to the local market. Sales ratio studies with a property type stratified by quality grade may validate the rates and data applied or may reveal needed adjustments to base rates or problems with the determination of the quality grade.

***"Replacement cost figures should include all direct and indirect costs, including materials, labor, equipment cost, supervision, architect and legal fees, administrative expenses, overhead, and reasonable profit. Properly accounting for indirect costs and entrepreneurial profit requires research."***<sup>37</sup> ~~The two components of profit in **replacement cost new RCN** are contractor's profit and **entrepreneurial incentive** developer's anticipated profit. Developer's anticipated profit is sometimes referred to as entrepreneurial incentive. The cost data from published cost manuals may include contractor's profit, but **entrepreneurial incentive** developer's anticipated profit typically is not. However, all determinations of **replacement cost new RCN** of real property should include both. The two methods of deriving **replacement cost new RCN** that are commonly applied in mass appraisal are the comparative unit method and the unit-in-place method.~~

**6.4.2 Depreciation.** Depreciation represents the difference between the **replacement cost new RCN** and the just value of real property improvements. Depreciation may result from physical deterioration, functional obsolescence, or external obsolescence. In mass appraisal, depreciation is applied primarily using depreciation tables or their complement, percent good tables. Depreciation tables are available from published cost manuals. To the extent possible, these depreciation tables should be tested for reasonableness.

Effective age may be determined through onsite evaluation by field inspectors. The effective age is the link between each improved parcel and the appropriate field in the depreciation table. Effective age is determined by considering the actual age of the property, the quality of maintenance, any renovation, and any observed deferred maintenance. As applied in mass appraisal, effective age may, but does not typically, consider other

---

<sup>37</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 181.

forms of depreciation such as any functional obsolescence or any external obsolescence. The accurate and consistent determination of effective age necessary for depreciation calculations requires effective training and diligence. Application of any other types of depreciation not reflected in the effective age or depreciation table, should be supported with documentation.

Assuming availability of adequate sale data, sales ratio studies may be useful for adjusting published depreciation schedules to the local market. Sales ratio studies with a property type stratified by age of improvements may validate the applied rates and data or may reveal needed adjustments to depreciation rates or reevaluation of effective age.

**6.5 The Sales Comparison Approach.** The effectiveness of the sales comparison approach in mass appraisal depends in part on reliable data collection and management, effective exploratory data analysis, good market knowledge, professionally accepted appraisal practices and appropriate appraisal methodologies, and application of mass appraisal quality assurance tools. The collection and management of sale data and exploratory data analysis are described in sections 4.4.7 and 4.7 of these guidelines. The sales comparison approach is a set of procedures in which the results of arm's-length transactions within properly stratified real property groups are analyzed for just value indications, which then may be applied to all properties in those groups. The collection and management of sale data and exploratory data analysis are described in sections 4.4.7 and 4.7 of these guidelines.

The sales comparison approach relies on proper stratification of real property. Stratification criteria may include property use code, location, quality grade, effective age, or size. The appropriate level of stratification may vary based on the number and type of real property parcels involved and the amount of market data available.

The sales comparison approach also relies on adjusting qualified sale prices to accurately reflect market changes over time. Adjusting qualified sale prices to the date of assessment is a recommended best practice by the IAEO (see Addendum D). The Department provides training on the process for developing time adjustment factors.

As applied in the sales comparison approach, units of comparison are the economic units into which the prices or value indications of real property may be divided for analysis. An example of a unit of comparison would be price per square foot. Selecting the appropriate unit of comparison for mass appraisal purposes involves two primary criteria. One is the unit of comparison market participants use most frequently in their decision-making for the property type under analysis, and the other is the unit of comparison resulting in the lowest measures of dispersion in sale data sets. In most cases, sale data should be compiled by the appropriate unit of comparison before valuation analysis. However, some quantitative valuation models may directly employ total sale prices and produce total just value indications.

Sales comparison analysis may involve both quantitative and qualitative analyses. After sale data have been appropriately stratified and compiled by units of comparison, analysis of these groups may reveal relationships affecting just value. Useful quantitative analyses may include calculating and considering measures of central tendency and measures of dispersion for unit prices and conducting other exploratory data analyses. Any quantitative adjustments or conclusions should be reviewed for reasonableness, consistency, and stability and, if necessary, overridden by relative comparison analysis. Qualitative analysis is useful in the mass appraisal process and may be used to consider the overall significant differences within and among real property groups.

**6.5.1 Multiple Regression Analysis (MRA).** *“Multiple regression analysis (MRA) is a statistical technique for estimating unknown data on the basis of known data. MRA is the workhorse of mass appraisal.”*<sup>38</sup> This is a highly

---

<sup>38</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 279.

complex statistical procedure that analyzes the relationships between the property characteristics and sale prices of sold property to develop a mathematical equation to determine the just valuations of groups of real property. The effective implementation of this method requires relatively large quantities of market data, highly sophisticated statistical software, highly skilled staff, and usually the hiring of external consultants. The feasibility of using MRA in Florida may be limited to counties with larger resource bases and the required quantities of market data.

**6.5.2 Adaptive Estimation Procedure.** Adaptive estimation procedure, also referred to as “feedback,” is another useful mass appraisal tool in the sales comparison approach.<sup>39</sup> Like MRA, this is a highly complex statistical procedure that analyzes the relationships between the property characteristics and sale prices of sold property to develop a mathematical equation to determine the just valuations of groups of real property. Separate feedback models may be developed for residential market areas and other real property groups. The adaptive estimation procedure has requirements, possible limitations, and assumptions like those of MRA.

**6.6 The Income Approach.** The effectiveness of the income capitalization approach in mass appraisal may depend in part on reliable data collection and management, effective exploratory data analysis, good market knowledge, professionally accepted appraisal practices and appropriate appraisal methodologies, and application of mass appraisal quality assurance tools. In its basic applications, the income approach is a set of procedures in which stabilized income from income-producing real property is capitalized into a just value indication by dividing stabilized net operating income by an overall capitalization rate, or by multiplying stabilized gross income by a gross income multiplier (GIM). A buyer of income-producing property exchanges current dollars for the expectation of receiving future dollars. The collection and management of income data and exploratory data analysis are described in section 4.4.8 and 4.7 of these guidelines.

The income approach relies on proper stratification of real property. Stratification criteria may include property use code, location, quality grade, effective age, or size. The appropriate level of stratification may vary based on the number and type of real property parcels involved and the amount of market data available.

As applied in the income approach, units of comparison are the economic units into which the income, operating expenses, or value indications of real property may be divided for analysis. Examples of units of comparison are rent per square foot or expenses per square foot. Selecting the appropriate unit of comparison for income and expenses involves two primary criteria. One is the unit of comparison market participants use most frequently in their decision-making for the property type under analysis, and the other is the unit of comparison resulting in the lowest measures of dispersion in income and operating expense data sets. Before valuation analysis, all income and operating expense data should be reduced to the appropriate unit of comparison.

**6.6.1 Market Rent and Expense Analysis.** Market rent, which is distinct from contract rent, corresponds to the fee simple estate. Contract rent corresponds to the leased fee estate. Therefore, contract rent is irrelevant to real property valuation for ad valorem tax purposes in Florida, unless independent support is available indicating that contract rent is equal to market rent. Market rent may be less than, equal to, or greater than contract rent.

Reliable market rent and expense analysis involves both quantitative and qualitative analyses. After market rent and expense data have been appropriately stratified and compiled by units of comparison, analysis of these groups may reveal relationships affecting these data. Useful quantitative analyses may include calculating and considering measures of central tendency and dispersion for unit rent and expenses and conducting other exploratory data analyses.

<sup>39</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), pages 269-271.



**6.6.2 Direct Capitalization.** Direct capitalization is used to convert a single year's income expectancy into a value indication. This conversion is accomplished in one step, either by dividing the net operating income by an appropriate income rate or by multiplying the gross income estimate by an appropriate factor or multiplier.<sup>40</sup>

The market factors to consider may include:

- 1) The recent income and expense histories of properly stratified real property groups
- 2) The current trends for income and expenses of properly stratified real property groups
- 3) The market participants' expectations for income and expenses of properly stratified real property groups
- 4) The recent history, current trends, and market participants' expectations for income and expenses of individual properties in properly stratified real property groups
- 5) Commercially available and published reports on the recent history, current trends, and market participants' expectations for income and expenses of property that may be compared to the properly stratified real property groups

An overall capitalization rate, or overall rate, is a number in decimal form that may be divided into net operating income to produce an indication of just value by the income approach.

Direct capitalization is a common, but somewhat complex income approach method. To produce credible just valuation using direct capitalization for income producing properties, the property appraiser and valuation staff should have a good working knowledge of the method and understand how to apply it effectively.

**6.6.3 Gross Income Multiplier (GIM).** In this variant of direct capitalization, a value indication may be formed in two ways. One way is to multiply potential gross income by a market-extracted potential GIM, and the other is to multiply effective gross income by a market-extracted effective GIM. GIMs may be extracted from sales by dividing the sale price by potential gross income or effective gross income. GIMs should be applied the same way they were extracted. Various indicators of GIMs may be reconciled using relative comparison analysis. Because the GIM method does not explicitly consider operating expenses, the operating expense ratios of sold properties from which multipliers may be extracted and those of the property groups to which multipliers may be applied should be reasonably consistent.

**6.6.4 Yield Capitalization.** Discounted cash flow analysis is a common method variant of yield capitalization, when appropriate. Discounted cash flow analysis is a set of procedures in which a value indication is produced by projecting the future annual net operating income over a typical investment holding period, along with the net proceeds of resale at the end of the holding period, and then discounting these future economic benefits back to the present using an appropriate discount rate. In evaluating the potential use of any yield capitalization method in particular situations, property appraisers must consider applicable case law and apply professionally accepted appraisal practices and appropriate appraisal methodologies.

<sup>40</sup> Appraisal Institute, *The Appraisal of Real Estate, Fifteenth Edition* (Chicago: Appraisal Institute, 2020), page 459.

## Addendum A - DEFINITIONS

**NOTE:** This addendum is not intended to represent a complete glossary of related terms, but rather is intended to include those most applicable. Terms are listed in alphabetical order. A list of related terms is provided at the beginning of each section of these guidelines.

<b>Actual Age</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 4	<i>"The number of years that have elapsed since the completed construction of an improvement; also referred to as historical age or chronological age."</i>
<b>Ad Valorem Tax</b>	
Section 192.001(1), F.S.	<i>"A tax based upon the assessed value of property."</i>
<b>Arm's-Length Transaction</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 10	<i>"A sale between a willing buyer and a willing seller that are unrelated parties, each of whom is reasonably knowledgeable about market conditions and under no undue pressure to buy or sell."</i>
<b>Assessed Value</b>	
Section 192.001(2), F.S.	<i>"Assessed value of property" means an annual determination of:</i> <i>(a) The just or fair market value of an item or property;</i> <i>(b) The value of property as limited by Art. VII of the State Constitution; or</i> <i>(c) The value of property in a classified use or at a fractional value if the property is assessed solely on the basis of character or use or at a specified percentage of its value under Art. VII of the State Constitution."</i>
<b>Assessment Roll</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 11	<i>"The basis on which property tax levies are allocated among assessable property within a taxing jurisdiction. A public record of the assessed value of every property in a taxing jurisdiction. Often includes a parcel identification number (account number), name of owner of record, location address, mailing address, assessed value of land, assessed value of building, assessed value of other real property improvements, assessed value of personal property, and exemption codes." For these guidelines, an assessment roll is a systematic listing of parcel, ownership, and valuation data of all real property in a county for ad valorem taxation purposes. The Department's annual <a href="#">Tax Roll Production, Submission, and Evaluation Standards</a> detail requirement for the assessment rolls.</i>
<b>Cadastral Map</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 17	<i>"A scale map displaying property ownership boundaries and showing the dimensions of each parcel with related information such as parcel identifier, survey lines, and easements. Annotations on recent sale prices and land value are sometimes added."</i>
<b>Coefficient of Dispersion (COD)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 22	<i>"Expresses as a percentage the average deviation of the ratios from the median. The COD is used throughout the property assessment field as a measure of appraisal uniformity." See Addendum D, <b>Appraisal Uniformity</b></i>
<b>Computer-Assisted Mass Appraisal (CAMA)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 23	<i>"A software package used by governmental agencies and assessing offices to establish real and personal property valuations for property tax purposes. It is composed of several applications that systemically value property. Often includes statistical analysis such as multiple regression analysis to assist the appraiser in determining the value of property for property taxation purposes." CAMA systems are used in all 67 Florida counties. The CAMA systems currently employed vary in their capability to store, retrieve, analyze, and report mass appraisal data. However, all Florida CAMA systems must be capable of storing and maintaining the data necessary to produce the reports and files the Department requires.</i>



<b>Contract Rent</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 25	"The actual amount of rent that is specified in the lease."
<b>Cost Approach</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 28	"1) One of the three approaches to value, the cost approach is based on the principle of substitution—that a rational, informed purchaser would pay no more for a property than the cost of building an acceptable substitute with like utility. The cost approach seeks to determine the replacement cost new of an improvement less depreciation plus land value; and 2) The method of estimating the value of property by: (a) Estimating the cost of construction based on replacement or reproduction cost new or trended historical cost (often adjusted by a local multiplier); (b) Subtracting depreciation; and (c) Adding the estimated land value. (The land value is most frequently determined by the sales comparison approach.)"
<b>Data Edit</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 30	"The process of examining recorded data to ensure that each element of data is reasonable and consistent with others recorded for the same object, such as a parcel of real estate. Data editing, which may be done by human beings or by computer, is essentially a mechanical process, distinct from verifying the correctness of the recorded information by calling or writing property owners."
<b>Deferred Maintenance</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 32	"Postponed maintenance and repairs to real or personal property that were not performed and have been delayed."
<b>Direct Capitalization</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 35	"A method of converting a single year's income into an estimate of value by dividing the expected annual net operating income by an overall capitalization rate."
<b>Economic Rent (Market Rent)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 108	"In appraisal, the annual rent that is justified for the property on the basis of a careful study of comparable properties in the area; market rent."
<b>Effective Age</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 39	"The age of a property based on the amount of observed deterioration and obsolescence, which may be less than, greater than, or equal to the chronological age."
<b>Entrepreneurial Incentive</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 40	"A market-derived figure that represents the amount an entrepreneur expects or wants to receive as compensation for providing coordination and expertise and assuming the risks associated with the development of a project. Incentive is the forecasted reward entrepreneurs expect and is projected before completion of the construction."
<b>Entrepreneurial Profit</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 40	"A market-derived figure that represents the amount an entrepreneur receives for his or her contribution to a project and risk; the difference between the total cost of a property (cost of development) and its market value (property value after completion), which represents the entrepreneur's compensation for the risk and expertise associated with development."
<b>External Obsolescence</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 43	"A type of temporary or permanent depreciation caused by negative factors outside of the property."

<b>Fee Simple/Fee Simple Absolute</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 44	<del>"An estate of infinite duration, freely alienable. The most complete ownership in real estate possible, although still subject to the four powers of government. May still be subject to other private encumbrances or restrictions."</del> The four powers of government are taxation, police power, eminent domain, and escheat.
<b>Functional Obsolescence</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 47	"The loss of value in a property improvement due to impairment, deficiency in design, changes in style, taste, technology, needs, and demands. Can be either curable or incurable. Functional obsolescence exists when a property suffers from poor or inappropriate architecture, lack of modern equipment, wasteful floor plans, inappropriate room sizes, inadequate heating or cooling capacity, deficiencies, and so on. It is the inability of a structure to perform adequately the function for which it is currently used."
<b>General Data</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 48	"A category of data that includes trends that affect value and might occur on the national, regional, and neighborhood levels. These data also include physical (environmental), economic, governmental, and social forces that affect value." See Addendum B, <b>Value Influences in Real Estate Markets</b> .
<b>Gross Income Multiplier (GIM)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 52	"A capitalization technique that uses a ratio between the sale price of a property and its potential gross income. It is a factor that can be multiplied by the potential gross income (PGI) to obtain the market value of a property. Referred to as the Potential Gross Income Multiplier (PGIM)."
<b>Highest and Best Use</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 53	"The appraisal principle that requires evaluation of all physically possible, legally permissible, financially feasible, and maximally productive (most profitable) uses of a property to determine the use that provides the owner with the highest net return on investment in the property. Highest and best use is evaluated as if vacant land, and as improved." See section 6.1 of these guidelines.
<b>Income Approach</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 56	"One of the three approaches to value that converts expected economic benefits of owning a property into value through a direct capitalization method or yield capitalization process. Also called Income Capitalization Approach."
<b>Jurisdictional Exception</b>	
The Appraisal Foundation, USPAP, 2024, page 5	"An assignment condition established by applicable law or regulation, which precludes an appraiser from complying with USPAP."
<b>Just Value or Fair Market Value</b>	
Rule 12D-1.002(2), F.A.C.	<del>Just value is "The price at which a property, if offered for sale in the open market, with a reasonable time for the seller to find a purchaser, would transfer for cash or its equivalent, under prevailing market conditions between parties who have knowledge of the uses to which the property may be put, both seeking to maximize their gains and neither being in a position to take advantage of the exigencies of the other."</del>
<b>Level of Assessment (LOA)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 66	"The common or overall ratio of assessed values to market values." See Addendum D, <b>Level of Assessment</b> .

<b>Market Participants</b>	
Appraisal Institute, <i>The Dictionary of Real Estate Appraisal</i> , 7th Edition, 2022, page 116 and Appraisal Institute, <i>The Appraisal of Real Estate</i> , 15th Edition, 2020, pages 112, 137-138	<p><i>"Individuals actively engaged in transactions. In real property markets, primary market participants invest in real property or use real estate, such as buyers, sellers, owners, lenders, and tenants. Secondary market participants include those who advise primary market participants, such as agents and brokers, advisors, counselors, underwriters, and appraisers."</i></p> <p><i>"The essential appraisal activity of real estate market analysis focuses on the motivations, attitudes, and interaction of market participants as they respond to the particular characteristics of real estate and to external influences that affect its value."</i></p> <p>The property appraiser's valuation should reflect how the collective perceptions, expectations, and preferences of market participants influence real property value.</p>
<b>Market Rent</b>	
Appraisal Institute, <i>The Dictionary of Real Estate Appraisal</i> , 7th Edition, 2022, page 116-117	<p><i>"The most probable rent that a property should bring in a competitive and open market under all conditions requisite to a fair lease transaction, the lessee and lessor each acting prudently and knowledgeably, and assuming the rent is not affected by undue stimulus. Implicit in this definition is the execution of a lease as of a specified date under conditions whereby</i></p> <ul style="list-style-type: none"> <li><i>• Lessee and lessor are typically motivated;</i></li> <li><i>• Both parties are well informed or well advised, and acting in what they consider their best interests;</i></li> <li><i>• Payment is made in terms of cash or in terms of financial arrangements comparable thereto; and</i></li> <li><i>• The rent reflects specified terms and conditions, such as permitted uses, use restrictions, expense obligations, duration, concessions, rental adjustments and revaluations, renewal and purchase options, and tenant improvements (TIs)"</i></li> </ul>
<b>Mass Appraisal/Mass Appraisal System</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 74	<p><i>"The process of valuing a group of properties as of a given date, using standard methods, employing common data, and allowing for statistical testing."</i> For these guidelines, the term "mass appraisal system" is synonymous with the IAAO definition of "mass appraisal." "System," in the phrase "mass appraisal system," does not represent a computer system; rather it represents a system of processes and procedures organized according to functional groups. These guidelines assume the mass appraisal system is in place and operational. Otherwise, the implicit time required to design and implement the mass appraisal system and produce the annual just valuations would exceed Florida's one-year revaluation cycle.</p>
<b>Measure of Central Tendency</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 74	<p><i>"Single values representing the center point of a set of data. Common measures of central tendency are the mode, median, arithmetic mean, and weighted mean."</i></p>
<b>Model Calibration</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 77	<p><i>"A process used to develop adjustment factors based on market analysis that identifies specific factors with an actual effect on market value."</i></p>
<b>Model Specification</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 77	<p><i>"A process used for identifying and defining the property characteristics used in a valuation model and how they related mathematically with one another."</i></p>
<b>Multiple Regression Analysis (MRA)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 79	<p><i>"Also known as Multiple Regression. It is a statistical technique used to analyze data in order to predict the value of one variable (the dependent variable), such as market value, from the known value of other variables (independent variables), such as lot size, number of rooms, and so on. If there is one independent variable used, the technique is known as simple regression. With two or more independent variables the technique is referred to as multiple regression."</i></p>

<b>Personal Property</b>	
Section 192.001(11), F.S.	Personal property is divided into four categories: household goods, intangible personal property, inventory, and tangible personal property. Generally, personal property is property other than real property.
<b>Physical Characteristics</b>	
The Appraisal Foundation, USPAP, 2024, page 5	<i>"Attributes of a property that are observable or measurable as a matter of fact, as distinguished from opinions or conclusions, which are the result of some level of analysis or judgment."</i>
<b>Physical Deterioration</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 92	<i>"A cause of depreciation that is a loss in value due to ordinary wear and tear and the forces of nature. The loss in value begins immediately following the completion or installation of a building component. Man-made objects begin to suffer from deterioration as soon as they are created, simply because of the passage of time. Decay may be due to normal chemical changes in materials' composition or may result from mechanical cause. The loss in value may be curable or incurable."</i>
<b>Price-Related Differential (PRD)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 97	<i>"A statistical measure of vertical property tax equity. The PRD is calculated by dividing the mean ratio by the weighted mean ratio in a ratio study. If the result exceeds 1.03, assessments are considered regressive. If the result is less than 0.98, assessments are considered progressive." See Addendum D, <b>Appraisal Uniformity</b>.</i>
<b>Qualified Sale</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 102	<i>"A property transfer that satisfies the conditions of a valid sale and meets all other technical criteria for inclusion in a ratio study sample. If a property has undergone significant changes in physical characteristics, use, or condition in the period between the assessment date and sale date, it would not technically qualify for use in ratio study."</i>
<b>Quality Assurance</b>	
IAAO Standard on Data Quality, 2019, page 10	<i>"The proactive maintenance of a desired level of quality in a service or product, especially by means of attention to every stage of the process of delivery or production."</i>
<b>Quality Control</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 102	<i>"The activities involved in ensuring that data accuracy standards are achieved and maintained."</i>
<b>Ratio Study</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 104	<i>"A statistical study of the relationship between appraised or assessed values and market values; based on an analysis of the ratio derived by dividing the appraised or assessed values of property by the market values of such property. Sale prices or independent appraisals are used as proxies for market values."</i>
<b>Real Property</b>	
Section 192.001(12), F.S.	<i>"Land, buildings, fixtures, and all other improvements to land."</i>
<b>Reconciliation</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 106	<i>"The final step in the valuation process wherein consideration is given to the relative strengths and weaknesses of the three approaches to value: cost, income, and sales comparison. Consideration is given to the nature of the property appraised and the quantity and quality of available data in formation of an overall opinion of value, as either a specific value or a range of value. Referred to as Correlation."</i>
<b>Replacement Cost New (RCN)</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 109	<i>"The current cost of producing a building or improvement, or item of personal property with the same utility with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost new method. It implies that the cost is based on a modern improvement that affords utility equivalent to that provided by the subject property."</i>

<b>Sales Comparison Approach</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 114	<i>"One of three approaches to value, the sales comparison approach estimates a property's value (or some other characteristic, such as depreciation) by reference to comparable sales. The sales comparison approach compares recently sold properties to the subject property. Adjustments are made to comparable properties to reflect the characteristics of the subject property."</i>
<b>Sales Ratio Study</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 114	<i>"A ratio study that uses sale prices as benchmarks for market values. A relationship between sales prices and value (market value, assessed value, equalized value), that is used to measure the level of appraisal. Used to evaluate the effectiveness of assessment practices, reappraisals, or revaluations."</i>
<b>Spatial Data Analysis</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 118	<i>"The study of the relationship between location-related data and property data, including property characteristics, market data, estimated values, and sales ratios."</i> See Addendum D.
<b>Specific Data</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 119	<i>"A category of data that consists principally of site and improvement data."</i>
<b>Stratification/Stratum/Strata</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 124	<p>Stratification: <i>"The division of a sample of observations into two or more subsets according to some criterion or set of criteria. Such a division may be made to analyze disparate property types, locations, or characteristics, for example."</i></p> <p>Stratum/strata: <i>"Class or subset that results from stratification."</i></p> <p>The main criteria for stratification are property use, location, and property characteristics. Stratification results in property groups with one or more shared characteristics. These groups, or strata, are useful for data collection and management, appraisal analysis, and quality assurance. The appropriate level of stratification may range from general with only one criterion to detailed with several criteria. In mass appraisal, the term "stratum" means one group, and the term "strata" means more than one group. For regulatory analysis by the Department, s. 195.096(3)(a), F.S., specifies seven real property classes, or strata.</p>
<b>Thematic Maps</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 130	<i>"Digital maps that allow various performance standards to be displayed spatially."</i> See Addendum D.
<b>Yield capitalization</b>	
IAAO Glossary for Property Appraisal and Assessment, Third Edition, 2022, page 143	<i>"The method of converting a series of future net benefits into present value where the future net benefits are discounted at a proper yield rate or discount rate (Yo). Yield capitalization can also be accomplished by developing an overall rate (Ro) that specifically reflects the investment's pattern of income, change in value, and yield rate."</i>

## Addendum B – RELEVANT VALUATION CONCEPTS

**NOTE:** This addendum is not intended to represent a complete listing of related concepts, but rather is intended to include those most applicable.

<b>Fairness in Real Property Ad Valorem Taxation</b>	
IAAO <i>Fundamentals of Tax Policy</i> , 2008, page 28 and 210	<p><i>"Fairness and equity have to do with a sense that there is no favoritism or bias in the design or administration of a tax." "Public acceptance of property taxes depends in large measure on the perception that the taxes are fair. The perception of fairness is reinforced when data are accurate, valuations appear accurate and uniform, and all taxpayers are treated without prejudice or favoritism."</i></p> <ul style="list-style-type: none"> <li>The best assurance for fairness in real property ad valorem taxation in Florida is to facilitate accurate and equitable just valuations.</li> </ul>
<b>Principle of Anticipation</b>	
IAAO <i>Glossary for Property Appraisal and Assessment</i> , Third Edition, 2022, page 97	<p><i>"The principle of value that states that value is the present worth of all the anticipated future benefits to be derived from a property. The benefits, in the form of an income stream or amenities, are those benefits anticipated by the market."</i></p> <ul style="list-style-type: none"> <li>The concept of anticipation means that real property value is heavily influenced by the collective expectations of market participants of receiving future benefits of owning real property.</li> <li>These future benefits may include personal use, business use, or investment income and resale.</li> </ul>
<b>Principle of Substitution</b>	
IAAO <i>Glossary for Property Appraisal and Assessment</i> , Third Edition, 2022, page 98	<p><i>"The principle of value that states that a property's market value tends to be set by the cost of acquiring an equally desirable and valuable substitute property, assuming that no costly delay is encountered in making the substitution. This principle underlies each of the three approaches to value: cost sales comparison, and income."</i></p> <ul style="list-style-type: none"> <li>The concept of substitution means that real property value may be influenced by the cost of developing a substitute parcel of real property, less accrued depreciation, or by the price of acquiring existing substitute real property of similar personal, business, or economic utility.</li> <li>Real property cost and depreciation, arm's-length transactions involving real property, and investment decisions regarding real property may reflect the concept of substitution.</li> </ul>
<b>Principle of Change</b>	
IAAO <i>Glossary for Property Appraisal and Assessment</i> , Third Edition, 2022, page 97	<p><i>"The principle of value that states that market value is never constant because physical, environmental, economic, governmental, and social forces are at work to change the property and its environment. When these forces are in balance, the market achieves a temporary state of rest called equilibrium."</i> Real property markets are constantly responding to the forces of change. Change may occur at a rate anywhere on the spectrum between relatively fast and very slowly and, at times, may be practically imperceptible.</p> <ul style="list-style-type: none"> <li>The rates of change in real property markets generally are much slower than in other economic markets such as the stock or commodities markets.</li> <li>The four major stages of change in real property markets are growth, stability, decline, and revitalization.</li> <li>Different real property markets experience different degrees of the four stages of change.</li> <li>The Florida annual mass appraisal cycle facilitates frequent response to the forces of change.</li> <li>See <b>Value Influences in Real Estate Markets</b> below.</li> </ul>



Cost/Price/Value	
The Appraisal Foundation, <i>USPAP</i> , 2024, pages 4, 5, and 6	<ul style="list-style-type: none"> <li>• <i>“Cost: the actual or estimated amount required to create, produce, replace, or obtain a property.”</i></li> <li>• <i>“Price: the amount asked, offered, or paid for a property. Comment: Once stated, price is a fact, whether it is publicly disclosed or retained in private. Because of the financial capabilities, motivations, or special interests of a given buyer or seller, the price paid for a property may or may not have any relation to the value that might be ascribed to that property by others.”</i></li> <li>• <i>“Value: the monetary relationship between properties and those who buy, sell, or use those properties, expressed as an opinion of the worth of a property at a given time. Comment: In appraisal practice, value will always be qualified – for example, market value, liquidation value, or investment value.”</i></li> </ul> <p>Cost, price, and value are different economic concepts. Property appraisers may use all three in their valuation activities and must understand the concepts well.</p> <ul style="list-style-type: none"> <li>• Cost is the total dollar amount required to create an improved parcel of real property. Cost may be an actual historical amount or may be an appraiser’s determination. To exist, the cost of real property requires the action of only a single person or entity.</li> <li>• Price is the actual total amount one party paid to another in exchange for real property in an actual transaction. Price is a historical fact.</li> <li>• Value is not a fact; it is the present worth, as of a specified date, of the collective market expectations of the future benefits of owning a specified interest in real property, such as personal use, business use, or investment income and resale.</li> </ul>
Real Estate (Real Property) Markets	
Appraisal Institute, <i>The Appraisal of Real Estate</i> , 15th Edition, 2020, pages 114-115	<p><i>“Real estate markets can differ significantly from the markets for other goods and services, and real estate markets have historically been considered less efficient than many other types of markets.”</i> Real estate markets reflect the following general characteristics which make them inefficient compared to other markets:</p> <ul style="list-style-type: none"> <li>• <i>No two parcels of real estate are physically identical There are usually only a few buyers and sellers interested in a particular type of property at one time, in one price range, and in one location</i></li> <li>• <i>An individual buyer or seller can influence price through exertion of control on supply or demand or both</i></li> <li>• <i>Supply or demand often shifts suddenly during periods of no activity or increased activity or when properties are in transition</i></li> <li>• <i>Buyers and sellers of real estate may not be well informed</i></li> <li>• <i>Market inefficiencies lead to high transaction costs</i></li> <li>• <i>Market participants are not able to act quickly on new information</i></li> </ul> <p>These factors may contribute to inefficiencies in the decision-making behavior of market participants. This is important in considering the price paid for real property. The property appraiser is responsible for determining whether particular real property sale prices are indicative of just value.</p>

## Value Influences in Real Estate Markets

Appraisal Institute, *The Appraisal of Real Estate*, 15th Edition, 2020, page 142

*"... The four forces that influence value (i.e., social, economic, governmental, and environmental forces) interact in the marketplace, creating unique combinations of factors. Careful study of general data related to a real estate market's character is a prerequisite to the more formal application of market analysis, highest and best use analysis, and the approaches to value."* The combined influence of these four forces is reflected in real property market activities such as land sales, improved sales, rentals, new subdivisions of land, new construction, renovation, maintenance, demolition, annexations, and changes in zoning or future land use classifications.

- **Legal/Regulatory Forces**, such as zoning codes, future land use classifications, and building codes.
- **Physical/Environmental Forces** are significant natural or man-made features that characterize a geographic area, such as land uses, bodies of water, public improvements (i.e., roads), building type/quality, and building age and condition.
- **Economic Forces** include employment, personal income trends, and business revenue and earnings. These economic forces can affect costs, prices, rents, and expenses paid for real property.
- **Social Forces**. Market transactions reflect social forces through the perceptions, expectations, and preferences of market participants. Costs, prices, and rents paid for real property may reveal social influences on real property value.



## Addendum C – MANAGING SALE DATA FOR PARCELS THAT CHANGE

In managing sale data for a sales ratio study, property appraisers must properly identify sales of parcels that change prior to the date of assessment. Changes include parcel splits, parcel combines, new construction, demolition, disaster, remodel/renovation, and legal characteristics (zoning changes for example). The Department specifies the change codes property appraisers should use to identify these sales in the annual [Tax Roll Production, Submission, and Evaluation Standards](#). If determined to be arm's-length, these sales are not appropriate for ratio studies, ~~however~~ However, the sale data may be useful for other analysis. The property appraisers should heed the following special considerations.

<b>Parcel Splits</b> <b>splits</b>	<p>Splits typically occur when the title to a portion of an existing parcel is transferred, creating new physical parcels for both the split-out parcel and for the remaining portion of the original parent parcel.</p> <ul style="list-style-type: none"> <li>• If a separate sale file is not a part of a CAMA system, special consideration is required for accurately maintaining any prior sales of the original parent parcel.</li> <li>• The property appraiser should assign any prior sales a special disqualification code indicating a change in property characteristics since the date of sale. This prevents mismatching data on sold property as of the date of sale and as of the date of assessment, and any resulting errors in valuations or sales ratio studies.</li> <li>• Property appraisers should save the relevant data, as of the date of sale, on any such prior sales of the original parent parcel.</li> <li>• The accurate maintenance of both property data and sale data is much easier if the affected parcels are assigned new parcel identification numbers during the processing of parcel splits.</li> </ul>
<b>Parcel Combines</b> <b>combines</b>	<p>Combinations typically occur when title to all or part of more than one parcel is transferred on a single transfer document, creating at least one new physical parcel.</p> <ul style="list-style-type: none"> <li>• Combinations may have the characteristics of both splits and subdivisions regarding parcel and sale data maintenance.</li> <li>• Property appraisers should take appropriate steps to prevent inaccurate sale data and to maintain accurate sale data.</li> <li>• The accurate maintenance of both property data and sale data is much easier if the affected parcels are assigned new parcel identification numbers during the processing of parcel combines.</li> <li>• Relevant data on sales of land tracts subsequently developed with subdivisions or condominiums should be preserved in a separate file since, typically, the tract parcel identification numbers become inactive when the newly developed parcels are placed on the assessment roll. These sale data may be scarce and should be preserved for appraisal purposes and for explaining just values.</li> </ul>
<b>New Construction</b>	<p><u>Sale data involving new construction require careful consideration.</u></p> <ul style="list-style-type: none"> <li>• A common real property market scenario is the purchase of a vacant land parcel and the subsequent construction of a building on the site. This frequently results in a mismatch between property characteristics at the time of sale (vacant land) and those on the date of assessment (improved property).</li> <li>• <u>These sales</u> Sales of vacant land may be arm's-length transactions and should be preserved for appraisal purposes, but they should not be used in sales ratio studies of improved property.</li> <li>• Sales must be accurately coded as either vacant land or improved property.</li> </ul>
<b>Demolition</b>	<p>After the date of sale, real property improvements are occasionally demolished to make way for new construction.</p> <ul style="list-style-type: none"> <li>• These sales may represent land sales.</li> <li>• Because these sold properties typically will have improved property use codes at the time of sale, property appraisers should be especially careful to identify them and apply proper coding for use in valuation activities and sales ratio studies.</li> <li>• Field inspections and review of demolition permits are helpful in identifying these sales, which may be useful in highly developed areas where land sales are scarce.</li> </ul>

<b>Disaster</b>	<p>If real property is damaged by disaster after a sale but before the date of assessment, the sale may not be appropriate for inclusion in a ratio study.</p> <ul style="list-style-type: none"> <li>• When disaster affects parcels in the jurisdiction during the assessment year, the appraiser should attempt to reinspect the parcels to ascertain the status of the real property as of the date of assessment and ensure that status is reflected in the assessment.</li> <li>• The reinspection should occur as close to the date of assessment as possible.</li> <li>• Building permits and other regulatory data may help determine the status of the real property as of the date of assessment.</li> </ul>
<b>Remodel/ Renovation</b>	<p>After the date of sale, real property improvements may be remodeled, renovated, or otherwise modified.</p> <ul style="list-style-type: none"> <li>• Such modifications to a property's physical characteristics may result in changes to the quality rating, condition rating, improvement size (increase or decrease), room count, extra features, functionality.</li> <li>• If these modifications occur prior to the date of assessment, the sale may not be appropriate for inclusion in a ratio study.</li> <li>• These sales may be preserved for valuation of properties comparable to the pre-modified property.</li> <li>• Review of permits and field inspections are helpful in identifying these sales.</li> </ul>
<b>Legal Characteristics</b>	<p>If the legally allowable uses for a parcel changes after a sale but before the date of assessment, the sale may not be appropriate for inclusion in a ratio study.</p> <ul style="list-style-type: none"> <li>• It is possible that the parcel sold with the potential legal change being known to some or all market participants, however this cannot be assumed and would require extensive verification.</li> <li>• Regulatory data, such as zoning/special district changes or recorded community covenants and restrictions, may help determine changes to the legal characteristics of a parcel.</li> </ul>

## Addendum D – TOPICAL INDEX FOR SALES RATIO STUDIES

This addendum provides an index of topics property appraisers should consider in preparing for or analyzing results of a sales ratio study. In addition, the *Standard on Ratio Studies*, published by the IAAO, is a valuable source of professionally accepted appraisal practices for conducting ratio studies and analyzing the ratio study results.

<b>Selective Reappraisal</b>	<p>Property appraisers must avoid selective reappraisal.</p> <ul style="list-style-type: none"> <li>To ensure assessment uniformity and equitable taxation, the property appraiser should establish valuation procedures that discourage and avoid selective reappraisal and conduct analyses to detect indications of selective reappraisal.</li> <li>In the review and approval of tax rolls, the Department conducts an analysis to identify selective reappraisal tendencies.</li> </ul>
<b>Property Changes</b>	<p>Property appraisers must ensure the relevant legal and physical characteristics of the sold property, as of the date of sale, accurately match the property's characteristics as of the date of assessment. <a href="#">See Addendum C.</a></p> <ul style="list-style-type: none"> <li>In managing sale data for sales ratio studies, property appraisers must properly identify sales of parcels that change prior to the date of assessment and exclude them from sales ratio studies.</li> <li>Changes include parcel splits, parcel combines, new construction, demolition, disaster, remodel/renovation, and legal characteristics (zoning changes for example). <a href="#">See Addendum C.</a></li> </ul>
<b>Stratification</b>	<p>Proper stratification of sold properties into groups with one or more common characteristic greatly enhances a sales ratio study's usefulness.</p> <ul style="list-style-type: none"> <li>Sales are first stratified using general criteria and then may be further stratified depending on the data available and the indications reflected in an initial or prior study.</li> <li>Appropriate stratification criteria may include: the seven statutory real property strata (see below), property use, geographic unit, market area, effective age, size, quality grade, or value range.</li> <li>Section 195.096(3)(a), F.S., requires the Department to compute statistical and analytical measures on the following seven real property classes, or strata, when the classes constituted 5 percent or more of the total assessed value of real property in a county on the previous assessment roll. Section 195.096(3)(a), F.S., specifies these strata: <ol style="list-style-type: none"> <li><i>Residential property that consists of one primary living unit, including, but not limited to, single-family residences, condominiums, cooperatives, and mobile homes.</i></li> <li><i>Residential property that consists of two to nine primary living units.</i></li> <li><i>Agricultural, high-water recharge, historic property used for commercial or certain nonprofit purposes, and other use-valued property.</i></li> <li><i>Vacant lots.</i></li> <li><i>Nonagricultural acreage and other undeveloped parcels.</i></li> <li><i>Improved commercial and industrial property, including apartments with more than nine units.</i></li> <li><i>Taxable institutional or governmental, utility, locally assessed railroad, oil, gas and mineral land, subsurface rights, and other real property.</i></li> </ol> </li> <li>Property appraisers may also perform statistical analyses on these seven strata for valuation planning, quality assurance, and to proactively evaluate regulatory compliance.</li> </ul>
<b>Measures of Appraisal Level</b>	<p>In sales ratio studies, measures of appraisal level are generally reflected by measures of central tendency.</p> <ul style="list-style-type: none"> <li>Measures of central tendency and dispersion are calculated for the sales ratios to evaluate the accuracy and equity of just values the sales reflect.</li> <li>The three common measures of appraisal level for sales ratio studies are the median, mean, and weighted mean. These three items are required inputs for calculating measures of appraisal uniformity. These measures of appraisal level are also useful for evaluating horizontal equity and vertical equity).</li> <li>Other important sales ratio study statistics include coefficient of dispersion (COD) and price-related differential (PRD). If these indicators do not fall within the ranges of acceptability, then additional research, and perhaps reappraisal, is required.</li> </ul>

<b>Adjustment for the Eighth Criterion</b>	<p>Section 193.011, F.S., contains the statutorily mandated eight factors, or criteria, that property appraisers must consider in the annual just valuations of real property.</p> <ul style="list-style-type: none"> <li>Property appraisers may apply aggregate adjustments to the just value-to-sale price ratios within real property strata to account for the eighth criterion.</li> <li>Any adjustments for the eighth criterion apply in the aggregate to specified strata of real property and to real property assessment rolls.</li> <li>The annual <a href="#">Tax Roll Production, Submission, and Evaluation Standards</a> publication contains details for preparing and submitting <i>Adjustments Made To Recorded Selling Prices or Fair Market Value in Arriving at Assessed Value</i> (Form DR-493).</li> </ul>
<b>Adjustment for Market Changes Over Time</b>	<p>To accurately reflect market changes over time, adjusting qualified sale prices to the date of assessment prior to conducting a sales ratio study is a recommended best practice by the IAAO. <i>“There should be a program to track changes in price levels over time and adjust sale prices for time as required. This step is an important component of a ratio study. Time adjustments must be based on market analysis and supported with appropriate documentation.”</i><sup>41</sup></p> <ul style="list-style-type: none"> <li>The Department uses time adjustment factors as part of the sales ratio study for residential improved and residential unimproved property.</li> <li>Property appraisers should apply appropriate, market-based time adjustments to sales used in a sales ratio study.</li> </ul>
<b>Level of Assessment (LOA)</b>	<p>The measure of appraisal level the Department uses to evaluate assessment rolls and to certify assessment rolls to the Department of Education is called the level of assessment (LOA).</p> <ul style="list-style-type: none"> <li>In Florida, the LOA is based on the adjusted weighted mean ratio for specified strata of real property and for real property assessment rolls.</li> <li>For proactively evaluating regulatory compliance, property appraisers may calculate the LOA by dividing the unadjusted weighted mean sales ratio by one minus any aggregate percentage adjustment for the eighth criterion.</li> <li>The annual <a href="#">Tax Roll Production, Submission, and Evaluation Standards</a> publication contains details for the Department’s LOA standards.</li> </ul>
<b>Appraisal Uniformity</b>	<p>Appraisal uniformity may be evaluated both within and among real property groups. Appraisal uniformity among groups may be evaluated by comparing measures of appraisal level for real property groups. Common indicators of appraisal uniformity within groups are array, range, COD, and PRD.</p> <ul style="list-style-type: none"> <li>Arranging the sales in ascending ratio order creates an array, and the lowest and highest ratios reflect the range. These two indicators are simple, directly observable, and useful for small groups of sales.</li> <li>However, the The COD and the PRD are generally applied as indicators of appraisal uniformity within real property groups. <ul style="list-style-type: none"> <li>The COD is the most common indicator of appraisal uniformity in sales ratio studies.</li> <li>It measures the variation of sales ratios in a group of sold properties.</li> <li>Because the COD is based on the median, it is not influenced by extreme sales ratios, as are measures of appraisal uniformity based on the mean.</li> <li>The PRD measures appraisal uniformity between low- and high-value properties in real property groups.</li> <li>A PRD below the acceptable range may indicate that high-value properties are over appraised relative to low-value properties, and the mass appraisal may be “progressive.”</li> <li>A PRD above the acceptable range may indicate that high-value properties are under appraised relative to low-value properties, and the mass appraisal may be “regressive.”</li> </ul> </li> <li>The annual <a href="#">Tax Roll Production, Submission, and Evaluation Standards</a> publication contains details for the Department’s uniformity standards for both COD and PRD.</li> </ul>

<sup>41</sup> International Association of Assessing Officers, *Standard on Ratio Studies* (Kansas City, MO: International Association of Assessing Officers, 2013), page 51.

<b>Appraisal Equity</b>	<p>Horizontal equity relates to equity in appraisal level between real property groups stratified by criteria other than value range.</p> <ul style="list-style-type: none"> <li>• Horizontal equity may be evaluated by comparing measures of appraisal level for real property groups stratified by indicators such as geographic units, site codes, age groups, and size groups. <ul style="list-style-type: none"> <li>– Graphic analysis may also be useful for evaluating horizontal equity.</li> <li>– If any significant horizontal inequity is apparent, additional analysis, and model calibration, may be required.</li> </ul> </li> <li>• Vertical equity pertains to equity in appraisal level related to the value of real property. <ul style="list-style-type: none"> <li>– Vertical equity may be evaluated by calculating the PRD for real property groups stratified by indicators such as geographic units, site codes, age groups, and size groups, and by comparing measures of appraisal level for value range groups.</li> <li>– Graphic analysis may also be useful for evaluating vertical equity.</li> <li>– If any significant vertical inequity is apparent, additional analysis, and model calibration, may be required.</li> </ul> </li> </ul>
<b>Graphic Displays</b>	<p><i>“Graphs and diagrams help clarify ratio study statistics and often provide a more complete picture of appraisal performance than statistics alone.”<sup>42</sup></i> Useful tools for displaying sales ratio study results may include arrays, frequency distributions, histograms, scatter plots, and box plots.</p> <ul style="list-style-type: none"> <li>• Scatter plots, or scatter diagrams, are especially useful for displaying the relationship between sales ratios and a single continuous variable such as size, age, price, or value.</li> <li>• Box plots are especially useful for displaying the relationship between sales ratios and a single discrete variable such as market area, neighborhood, quality grade, age range, size range, price range, or value range.</li> <li>• Interpreting and acting on the apparent relationship between sales ratios and a single variable such as value range, requires diligence because there could be a correlation between value range and another variable such as market area. This could cause a mistaken conclusion that a valuation inaccuracy is attributable to factors within a value range, when in fact the valuation inaccuracy is attributable to factors in a market area.</li> </ul>
<b>Spatial Analysis/ Thematic Maps</b>	<p>Like graphic displays, spatial analysis using thematic maps is a useful tool for analyzing and refining data prior to a sales ratio study and for analyzing sales ratios study results to determine appropriate changes to model specification or model calibrations. <i>“GIS software allows the analyst to plot data, analyze patterns, and create geographically based variables. Property characteristics and market data maintained in the CAMA database can be joined based on a common identifier (usually parcel number) to GIS files. Analysts can then display relevant features, such as sale prices or sales ratios, in various colors or symbols on the maps. Patterns help evaluate possible actions or, alternatively, where no action is required. Patterns in sale prices per unit, for example, can help in the construction of neighborhood boundaries ... patterns in sales ratios provide feedback on whether values are equitable geographically.”<sup>43</sup></i></p>

<sup>42</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011), page 232.

<sup>43</sup> International Association of Assessing Officers, *Fundamentals of Mass Appraisal* (Kansas City, MO: International Association of Assessing Officers, 2011) *ibid*, page 136.