

Duval County Appraisal District

2021 Mass Appraisal Report

INTRODUCTION:

Scope of Responsibility

The Duval County Appraisal District has prepared and published this report to provide citizens and taxpayers with a better understanding of the district's responsibilities and activities. This report has several parts: a general introduction and then several sections describing the appraisal effort by the appraisal district.

The Duval County Appraisal District (DCAD) is a political subdivision of the State of Texas, created effective January 1, 1980. The provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the appraisal district. A member board of directors, elected by the voting taxing units of Duval County, constitutes the district's governing body. The chief appraiser is the chief administrator and chief executive officer of the appraisal district.

The appraisal district is responsible for local property tax appraisal and exemption administration for fourteen (14) jurisdictions or taxing units in the county. Each taxing unit sets its own tax rate to generate tax revenue to pay for such things as police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services. Appraisals established by the appraisal district allocate the year's tax burden on the basis of each taxable property's January 1 market value. We also determine eligibility for various types of property tax exemptions such as those for the homeowner, the elderly, disabled veterans, and charitable and religious organizations.

Except as otherwise provided by the Texas Property Tax Code, all taxable property is appraised at its "market value" as of January 1. Under the tax code, "market value" is defined as the price at which a property would transfer for cash or its equivalency under prevailing market conditions if:

- *****exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- *****both the seller and the buyer know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of any enforceable restrictions on the use; and
- *****both the seller and the buyer seek to maximize their gains, with neither being in the position to take advantage of the other.

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

The Texas Property Tax Code, under Section 25.18, requires each appraisal office to implement a plan to update appraised values for real and personal property at least once every three years. The district's Written Plan for Periodic Reappraisal is attached to this report by reference. Appraised values are reviewed annually and are subject to change for purposes of equalization. Personal property, industrial property, complex commercial property, utility property, and mineral property values are reviewed or reappraised every year. Special-use valuations are also updated annually.

The appraised value of real estate is calculated using specific information about each property. Using computer-assisted appraisal programs, and recognized appraisal methods and techniques, we compare that information with the data for similar properties, and with recent market data. The district follows the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP). Any departure from USPAP standards is so noted in departure statements. In cases where the appraisal district contracts for professional valuation services, the contract that is entered into by each appraisal firm requires adherence to similar professional standards.

Personnel Resources

The office of the Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling of the district operations. The chief appraiser is also responsible for planning, organizing, directing and controlling the business functions related to human resources, budget, finance, records management, purchasing, fixed assets, facilities and postal services. The chief appraiser is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, and industrial. Duval County Appraisal District currently contracts with the appraisal firm of Pritchard & Abbott for appraisals of industrial and mineral properties and industry-related business personal accounts. The appraisal district is responsible for the field work associated with on-site inspections, in-house sales ratio studies for schedule adjustments and appraisals, residential schedule adjustments and appraisals, ag-value and rural land market value schedule adjustments and appraisals, informal hearings with protesting property owners, representation at ARB hearings, and other appraisal related duties. The chief appraiser is responsible for all values assigned. The appraisal district is also responsible for the following support groups: review appraisals, productivity valuation and special audits. The district's appraisers - whether in-house or contracted - are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with The Texas Department of Licensing and Regulation. Support functions including records maintenance, information and assistance to property owners, and hearings support are coordinated by the assistant chief appraiser.

The appraisal district staff consists of seven (7) full time equivalent employees, and no part time employees. The chief appraiser has obtained certifications as follows: RPA, CTA, & CCA. Other employees are working towards certifications as follows: Two (2) employees currently working towards a RPA certification and 1 other employee is currently a RPA.

Data

The district is responsible for establishing and maintaining approximately 18,562 real and personal property accounts covering Duval County. This data includes property characteristics, ownership, and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review. Sales are routinely validated during a separate field effort; however, numerous sales are validated as part of the new construction and data review field activities. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires to buyer and sometimes the seller, and local real estate agents.

The district has a geographic information system (GIS) that maintains cadastral maps and various layers of data, including aerial photography.

Independent Performance Test

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

There are four (4) independent school districts in Duval CAD for which appraisal rolls are annually developed. The preliminary results of this study are released in January in the year following the year of appraisement. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of appraisement. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

Appraisal Activities

INTRODUCTION

Appraisal Responsibilities

The chief appraiser is responsible for collecting and maintaining property characteristic data for classification, valuation, and other purposes. Accurate valuation of real and personal property by any method requires physical description of personal property, land and building characteristics. This appraisal activity is responsible for administering, planning and coordinating all activities involving data collection and maintenance of all commercial, residential and personal property types that are located within the boundaries of the appraisal district. The data collection effort involves the field inspection of real and personal property accounts, as well as data entry of all data collected into the existing information system. (Appraisal district staff assists the chief appraiser in the collection of data and the entry of that data into the information system.) The goal is to periodically field inspect all real property in the appraisal district at least once every three years. Meeting this goal is dependent on budgetary constraints. The above responsibilities are or can be delegated to contracted personnel or in-house staff as deemed appropriate by the chief appraiser.

Appraisal Resources

- * **Personnel** - The appraisal activities consist of the chief appraiser, two field appraisers, one Appraisaer/GIS Specialist, one Administrative Assistant, two clerks, and contracted appraisal companies.
- * **Data** - The data used by field appraisers includes the existing property characteristic information contained in CAMA (Computer Assisted Mass Appraisal System) from the district's computer system. The data is printed on a property record card (PRD) or on personal property data sheets. Other data used includes maps, sales data, fire and damage reports, building permits, photos, newspaper, etc.

PRELIMINARY ANALYSIS

Data Collection/Validation

Data collection of real property involves maintaining data characteristics of the property on CAMA (Computer Assisted Mass Appraisal). The information contained in CAMA includes site characteristics, such as land size and topography, and improvement data, such as square feet of living area, year built, quality of construction, and condition. Field appraisers use listing manual guides that establish uniform procedures for the correct listing of real property. All properties are coded according to these guides and the approaches to value are

structured and calibrated based on this coding system. The field appraisers use these manuals during their initial training and as a guide in the field inspection of properties. Data collection for personal property involves maintaining information on the Personal Property System. The type of information contained in the personal property system includes personal property such as business inventory, furniture and fixtures, machinery and equipment, cost, and location. The field appraisers conducting on-site inspections will use a personal property manual during their initial training and as a guide to correctly list all personal property that is taxable.

The listing procedure manuals that are utilized by the field appraisers are located in the district office. The manuals are always available for public inspection. The appraisal district clerical staff handles requests for copies of the manual. The chief appraiser periodically updates the manual with current information.

Sources of Data

The sources of data collection are through the new construction field effort, data review/re-list field effort, data mailers, hearings, sales validation field effort, commercial sales verification, newspapers and publications, and property owner correspondence. A principal source of data comes from building permits received for taxing jurisdictions that require property owners to take out a building permit.

Data review of entire neighborhoods is generally a good source for data collection. The field appraiser will drive entire neighborhoods to review the accuracy of our data and identify properties that have to be re-listed. The sales validation effort in real property pertains to the collection of data of properties that have sold. In residential, the sales validation effort involves on-site inspection by field appraisers to verify the accuracy of our data and to get confirmation of the sales price.

One of the sources that will generate a field check in both real and personal property is from a property owner. Property owners have access to part of our data and will notify us - either in an office visit, by phone, or by letter - whenever they find inconsistencies. Notification from property owners will generate a field check.

Data Collection Procedures

Field data collection requires organization, planning, and supervision of the field effort. Data collection procedures have been established for residential, commercial, and personal property. The field appraiser conducts inspections throughout the district and records information either on a property record card or on a personal property data sheet.

The quality of the data used is extremely important in establishing accurate values of taxable property. While production standards are established and upheld for the various field activities, quality of data is emphasized as the goal and responsibility of each appraisal district employee. New employees are trained in the specifics of data collection rules. Experienced employees are routinely re-trained in listing procedures prior to major field projects such as new construction, sales validation, or data review. A quality assurance process exists through supervision to review the work being performed by the field appraiser and data entry personnel. The chief appraiser is charged with the responsibility of ensuring that appraisers and employees follow listing

procedures, identify training issues and provide uniform training throughout the appraisal office staff.

Data Maintenance

The field appraiser is responsible for ensuring that field notes are legible and complete and in good order for data entry accuracy and quality assurance.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The date of the last inspection, extent of that inspection, and the CAD appraiser responsible are listed on the CAMA record. If a property owner or jurisdiction dispute CAD's records concerning this data during a hearing, via a telephone call or correspondence received, CAMA may be altered based on the evidence provided. Typically, a field inspection is requested to verify this evidence for the current year's valuation or for the next year's valuation. Every year, a field review of certain areas or neighborhoods in the jurisdiction is done during the data review/re-list field effort.

Office Review

Office reviews are completed on properties where information has been received from the owner of the property. Property owners frequently provide vital data which verifies the property characteristics or current condition of the property. When the property data is verified in this manner, field inspections are not required unless additional verification of data is required.

PERFORMANCE TEST

The chief appraiser is responsible for conducting ratio studies and comparative analysis. This responsibility may be assigned to contracted appraisal companies. These statistical tests are executed at least once each year.

The chief appraiser or contracted appraisal company may conduct field inspections to insure that the ratios produced are accurate and that the appraised values utilized are based on accurate property data characteristics.

Residential Valuation Process

INTRODUCTION

Scope of Responsibility

The chief appraiser is responsible for developing equal and uniform market values for residential improved and vacant property. There are approximately 6,761 residential improved parcels and 1,183 vacant residential properties in Duval County.

Appraisal Resources

- * Personnel - Residential valuations are performed by the staff of The appraisal district. This district is responsible for providing adequate staff. Employees of the appraisal district assist in various and appropriate ways.
- * Data - A common set of data characteristics for each residential dwelling in Duval County is collected in the field and data is entered into the computer. The property characteristic drives the computer-assisted mass appraisal (CAMA) approach to valuation.

VALUATION APPROACH (Model Specification)

Area Analysis

Data on regional economic forces such as demographic patterns, regional vocational factors, employment and income patterns, general trends in real property prices and rents, interest rates trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources. Information gleaned from real estate publications and sources such as continuing education in the form of IAAO, TAAO, and Comptroller of Public Accounts classes and seminars.

Neighborhood and Market analysis

Neighborhood analysis involves the examination of how physical, economic, governmental, and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and stratify comparable properties into smaller, more manageable subsets of the universe of properties known as neighborhoods. Residential valuation and neighborhood analysis is conducted on each of the properties located within a specified school district.

The first step in neighborhood analysis is the identification of a group of properties that share certain traits. A "neighborhood for analysis purposes is defined as the largest geographic grouping of properties where the property's physical, economic, governmental and social forces are generally similar and uniform. Geographic stratification accommodates the local supply and demand factors that vary across a jurisdiction. Once a neighborhood has been identified, the next step is to define its boundaries. This process is known as "delineation". Some factors used in neighborhood delineation include location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, square footage of living area, and story height. Delineation can involve the physical drawing of neighborhood boundary lines on a map, but it can also involve statistical separation or stratification based on attribute analysis. Part of neighborhood analysis is the consideration of discernible patterns of growth that influence a neighborhood's individual market. Few neighborhoods are fixed in character. Each neighborhood may be characterized as being in a stage of growth, stability, or decline. The growth period is a time of development and construction. Generally, in a stage of stability, older neighborhoods can be more desirable due to their stability of residential character and proximity to the workplace and other community facilities. A period of decline reflects diminishing demand or desirability. During decline, general property use may change from residential to a mix of residential and commercial uses. Declining neighborhoods may also experience renewal, reorganization, rebuilding, or restoration, which promotes increased demand and economic desirability.

Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of residential property is normally its current use. This is due in part to the fact that residential development, in many areas, through use of deed restrictions and zoning, precludes other land uses. Residential valuation undertakes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. In transition areas with ongoing gentrification, the appraiser reviews the existing residential property use and makes a determination regarding highest and best use. Once the conclusion is made that the highest and best use analysis is done to decide the type of residential use on a neighborhood basis. As an example, it may be determined in a transition area that older, non-remodeled homes are economic misimprovements, and the highest and best of such property is the construction of new dwellings. In areas of mixed residential and commercial use, the appraiser reviews properties in these areas on a periodic basis to determine if changes in the real estate market require reassessment of the highest and best use of a select population of properties.

DATA COLLECTION AND VALIDATION

Sources of Data

The district's property characteristic data was originally received in 1979 from the Duval County Tax Office, the Benavides Independent School District Tax Office, and the Freer Independent School District Tax Office, and where absent, collected through a massive field data collection effort coordinated by the district over a period of time. Tax assessors, city and local newspapers, and the public often

provide the district information regarding new construction, market patterns, and other useful facts related to property valuation.

VALUATION AND STATISTICAL ANALYSIS (Model Calibration)

Cost Schedules

All residential parcels in the district are valued from identical cost schedules using a comparative unit method. The district's residential cost schedules, originally adopted from a private mass appraisal firm, have been customized to Duval County's local residential building market. The cost schedules are reviewed annually.

The initial cost schedules developed for the Duval County Appraisal District were developed using Marshall & Swift, a nationally recognized cost estimator. The schedules were derived in this manner due to the fact that the appraisal district did not have enough newly constructed sold properties at various levels of quality of construction in the district to allow for analysis and statistical testing. Marshall & Swift processes included correlation of quality of construction factors. The results of this comparison were analyzed using statistical measures, including stratification by quality and reviewing estimated building costs plus land to sales prices. As a result of this analysis, a new regional multiplier was developed and used in the district's cost process. This multiplier was used to adjust the Marshall & Swift schedules to bring the schedules to costs reflecting the local market. **Note: The base per square foot costs of each classification schedule is based on a compilation of Marshall & Swift information. After ratio studies are conducted, local modifiers are determined by conducting ratio studies. While the base cost per square foot schedule remains unchanged, the local modifiers result in values that are typical and representative of the market for the area. The modified values are statistically tested by conducting additional ratio studies to ensure validity and uniformity of a market area. Modifiers are tested and adjusted, if necessary, on an annual basis.**

Sales Information

A sales file for the storage of sales data at the time of sale is maintained, primarily by office staff. Residential vacant land sales, along with commercial improved and vacant land sales, are maintained. Residential improved and vacant sales are collected from a variety of sources, including district questionnaires sent to buyers, field discovery, protest hearings, vendors, builders, and realtors. A system of type, source, validity, and verification codes was established to define salient facts related to a property's purchase or transfer. School district sales reports are generated as an analysis tool for the chief appraiser in the development of value estimates.

Land Analysis

The chief appraiser conducts residential land analysis based on existing and new data, if available. Lot size, costs per front foot, depth factor, and depth percentages are assigned to each parcel. The front footage land table is designed to systematically value the primary and residual land based on a specified percentage of one-hundred percent (100%) of the current market value. A computerized land-table file stores the land information required to consistently value individual parcels. Specific land influences are used, where necessary, to adjust parcels outside the norm for such factors as shape, size, topography, etc. The chief appraiser uses abstraction and allocation methods to insure that the

land values created best reflect the contributory market value of the land to the overall property value. This analysis may be assigned to the contracted appraisal company.

Statistical Analysis

The chief appraiser performs statistical analysis annually to evaluate whether values are equitable and consistent with the market. Ratio studies are conducted on each of the school districts in the district to judge the two primary aspects of mass appraisal accuracy: level of appraisal and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each school district by year. These studies include, but are not limited to, the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion, providing the chief appraiser a tool by which to determine both the level and uniformity of appraisals. The level of appraised values can be determined by the weighted mean for individual properties within a school district. Review of the standard deviation, coefficient of variation and coefficient of dispersion can discern appraisal uniformity within and between school districts.

The chief appraiser, through the sales ratio analysis process, reviews each classification of residence in each school district annually. The first phase involves ratios studies that compare the recent sales prices of properties to the appraised values of these sold properties. This set of ratio studies affords the chief appraiser an excellent means of judging the present level of appraised value and uniformity of the sales. The chief appraiser, based on the sales ratio statistics and designated parameters for valuation update, makes a preliminary decision as to whether the value level in a school district needs to be updated or whether the level of market value in a school district is at an acceptable level. This analysis process may be assigned to the contracted appraisal company.

Market Adjustment or Trending Factors

Market adjustments or factors are developed from appraisal statistics provided from ratio studies and are used to ensure that estimated values are consistent with the market. As the cost approach separately estimates both land and building values and uses depreciated replacement costs, which reflect only the supply side of the market, it is expected that adjustments to the cost values are needed to bring the level of appraisal to an acceptable standard.

If a category of residential improvements is to be updated, the chief appraiser uses a ratio study that compares recent sales prices of properties that have sold to the appraised value of those same properties. The calculated ratio derived from the sum of the sold properties value divided by the sum of the sales prices indicates the category's level of value based on the unadjusted value for the sold properties. This appraisal-to-sale ratio is used to determine the market adjustment factor for the category. This market adjustment factor is needed to trend the values closer to the actual market evidenced by recent sales prices within a given category in a given school district. The sales used to determine the market adjustment factor will reflect the market influences and conditions only for the specified category in the specified school district, thus producing more representative and supportable values. The market adjustment factor, if any, is applied uniformly to all properties in the category within a school

district. Once the factors are applied and values are adjusted by CAMA, a second set of ratio studies is generated that compares recent sales prices with the proposed appraised values for those sold properties. From this set of ratio studies, the appraiser judges the appraisal level and uniformity for the school district as a whole.

TREATMENT OF RESIDENCE HOMESTEADS

Beginning in 1998, the State of Texas implemented a constitutional classification scheme concerning the appraisal of residential property that receives a residence homestead exemption. Under the new law, beginning in the second year a property receives a homestead exemption, increases of that property are "capped". The value for tax purposes (appraised value) of a qualified residence homestead will be the LESSER of:

- ♦ the market value; or
- ♦ the preceding year's appraised value plus 10% plus the value of any improvements added since the last reappraisal.

Values of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1st of the following year. In the following year, that home is reappraised at its market value to bring its appraisal into uniformity with other properties.

TREATMENT OF ACCOUNTS WITH PRIOR YEAR HEARINGS

If the appraised value of a property is lowered by the Appraisal Review Board, that value is considered to be the appraised value of the property for that tax year. In the following tax year, the chief appraiser may not increase the appraised value of the property unless the increase by the chief appraiser is reasonably supported by substantial evidence when all of the reliable and probative evidence in the record is considered as a whole. If the appraised value is finally determined in a protest under Section 41.41(a)(2) or an appeal under Section 42.26, the chief appraiser may satisfy the requirement to reasonably support by substantial evidence an increase in the appraised value of the property in the following year by presenting evidence showing that the inequality in the appraisal of property has been corrected with regard to the properties that were considered in determining the value of the subject property. The burden of proof is on the chief appraiser to support an increase in the appraised value of property under the circumstances described in this section.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The chief appraiser identifies individual properties in critical need of field review through sales ratio analysis. Sold properties with a high variance in sales ratios are field reviewed on an annual basis to check for accuracy of data characteristics.

At each site of inspection, the appraiser reviews subjective data items such as quality of construction, condition, and physical, functional, and economic obsolescence factors. These factors contribute significantly to the market value of the property. During the site inspection, the appraiser is able to physically

inspect both sold and unsold properties for comparability and consistency of values.

The area to be physically inspected each year is identified in the appraisal district's written reappraisal plan.

Office Review

Given the resources and time required to conduct a routine field review of all properties, homogeneous properties consisting of similar characteristics with a low variance in sales ratios and other properties having a recent field inspection date can be reviewed in the appraisal office, unless it is located in an area specified for that year's field inspection cycle as identified in the appraisal district's written plan for reappraisal.

Once the chief appraiser is satisfied with the level and uniformity of value for each school district, the estimates of value go to noticing.

PERFORMANCE TESTS

Sales Ratio Studies

The primary analytical tool used by the chief appraiser to measure and improve performance is the ratio study. The district ensures that the appraised values that it produces meet the standards of accuracy in several ways. Overall sales ratios are generated for each school district to allow the chief appraiser to review general market trends and to provide an indication of market appreciation over a specified period of time. Sales ratio studies are generated from computer statistical software for each school district and the appraisal district as a whole. Reported in the sales ratio statistics for each school district is a level of appraised value and uniformity profile by structure type (classification), median level of appraisal, weighted mean, and coefficient of dispersion. The computer-based ratio studies are designed to emulate the findings of the State Comptroller's annual property value study for category A properties (single-family residential property).

Management Review Process

Once the proposed value estimates are finalized, the chief appraiser reviews the sales ratios by school district and confirms pertinent valuation data, such as sale-to-parcel ratio and level of appraisal. The primary objective of this review is to ensure that the proposed values have met preset appraisal standards.

An independent test of the appraisal performance of the district is conducted by the State of Texas Comptroller's Office through the annual property value study. The study determines the degree of uniformity and the median level of appraisals by the appraisal district within each major category of property. The Comptroller publishes a report of the findings of the study from each category of property, including the median appraisal levels, the coefficient of dispersion, and any other standard statistical measures that the Comptroller considers appropriate.

Commercial Valuation Process

INTRODUCTION

Appraisal Responsibility

This mass appraisal assignment includes all of the commercially classed real property which falls within the responsibility of the Duval County Appraisal District and located within the boundaries of the taxing jurisdictions. The appraisal roll displays and identifies each parcel of real property individually. Commercial appraisers appraise the fee simple interest of properties according to statute. However, the effect of easements, restrictions, encumbrances, leases, contracts or special assessments are considered on an individual basis, as is the appraisal of any non-exempt taxable fractional interests in real property (i.e. certain multi-family housing projects). Fractional interests or partial holdings of real property are appraised in fee simple for the whole property and divided programmatically based on their prorated interests.

Appraisal Resources

The improved real property appraisal responsibilities are categorized according to major property types of office, retail, warehouse, and special use (i.e. hotels, clinics, etc.). The appraisal district is contracted with Eagle Appraisal & Consulting to perform the field inspections and assign improved commercial property types. The contracted appraisal firm is responsible for the land valuations.

DATA - The data used by the commercial appraisers includes verified sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.). Other data used by the appraiser includes actual income and expense data (typically obtained through the hearings process), actual contract rental data, leasing information (commissions, tenant finish, length of terms, etc.), and actual construction cost data. In addition to the actual data obtained from specific properties, market data publications are also reviewed to provide additional support for market trends.

PRELIMINARY ANALYSIS

Pilot Study

Pilot studies are utilized to test new or existing procedures or valuation modifications in a limited area (a sample of properties) of the district and are also considered whenever substantial changes are made. These studies, which are inclusive of ratio studies, reveal whether a new system is producing accurate and reliable values or whether procedural modifications are required. The appraiser

implements this methodology when developing both the cost approach and income approach models.

Survey of Similar Jurisdictions: Duval CAD coordinates its discovery and valuation activities with adjoining appraisal districts. Numerous field trips, interviews and data exchanges with adjacent appraisal districts have been conducted to ensure compliance with state statutes. In addition, Duval CAD administration and personnel interact with other assessment officials through professional trade organizations including IAAO, TAAD, TAAO and TRCA.

VALUATION APPROACH (Model Specification)

Area Analysis

Data on regional economic forces such as demographic patterns, regional location factors, employment and income patterns, general trends in real property prices and rents, interest rate trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources, such as continuing education in the form of IAAO, TAAD, TAAO, and other source courses.

Neighborhood Analysis

The neighborhood is comprised of the land area and commercially classed properties located within the boundaries of the appraisal district. This area consists of a wide variety of property types including residential, commercial, and industrial. Neighborhood analysis involves the examination of how physical, economic, governmental, and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and organize comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. In the mass appraisal of commercial properties, these subsets of a universe of properties are generally referred to as market areas or economic areas.

Economic areas are defined by each of the improved property use types (apartment, office, retail, warehouse, and special use) based upon an analysis of similar economic or market forces. These include, but are not limited to, similarities of rental rates, classification of projects (known as building class by area commercial market experts), dates of construction, overall market activity or other pertinent influences. Economic area identification and delineation by each major property use type is the benchmark of the commercial valuation system. All income model valuation (income approach to value estimates) is economic area specific. Economic areas are periodically reviewed to determine if re-delineation is required.

Highest and Best Use Analysis

The highest and best use is the most reasonable and probable use that generates the highest present value of the real estate as of the date of valuation. The highest and best use of any given property must be physically possible, legally permissible, financially feasible, and maximally productive. For improved properties, highest and best use is evaluated as improved and as if the site were still vacant. This assists in determining if the existing improvements have a transitional use, interim use, nonconforming use, multiple uses, speculative use,

excess land, or a different optimum use if the site were vacant. For vacant tracts of land within this district, the highest and best use is considered speculative based on the surrounding land uses. Improved properties reflect a wide variety of highest and best uses which include, but are not limited to: office, retail, apartment, warehouse, light industrial, special purposes, or interim uses. In many instances, the property's current use is the same as its highest and best use. This analysis insures that an accurate estimate of market value (sometimes referred to as value in exchange) is derived.

On the other hand, value in use represents the value of a property to a specific user for a specific purpose. This is significantly different than market value, which approximates market price under the following assumptions: (a) no coercion of undue influence over the buyer or seller in an attempt to force the purchase or sale; (b) well-informed buyers and sellers acting in their own best interests; (c) a reasonable time for the transaction to take place; and (d) payments in cash or its equivalent.

Market Analysis

A market analysis relates directly to market forces affecting supply and demand. This study involves the relationships between social, economic, environmental, governmental, and site conditions. Current market activity including sales of commercial properties, new construction, new leases, lease rates, absorption rates, vacancies, allowable expenses (inclusive of replacement reserves), and expense ratio trends are analyzed.

DATA COLLECTION/VALIDATION

Sources of Data

With respect to the property characteristic data inventory system, every property subject to taxation by a jurisdiction within Duval CAD's area of responsibility is incorporated into a computer assisted mass appraisal (CAMA) system. Appraisers perform maintenance of special purpose properties. Any alterations to the properties involving building permits are then reviewed. Also, if any discrepancies are discovered during the hearings process or at any other time, the chief appraiser or a designated appraiser performs a field check prior to the next tax season. Data is reviewed during periodic field inspections.

In terms of commercial sales data, Duval CAD receives a copy of the deeds recorded in Duval County that convey commercially classed properties. The deeds involving a change in commercial ownership are entered into the sales information system and researched in an attempt to obtain the pertinent sale information. Other sources of sale data include the hearings process, word of mouth, and local publications.

Data Collection Procedures

Data collection procedures have been established for residential, commercial, industrial, and personal property. Appraisers conduct field inspections and record information on either a property record data (PRD) card or on personal property data sheets. This information is entered into the computer system and serves as the basis for the valuation of property.

The quality of data used is of paramount importance to accurate valuation of taxable property. While production standards are established and upheld for the

various field activities, quality of data is emphasized as the goal and responsibility of each appraiser. New appraisers are trained in the specifics of data collection.

For those properties involved in a transfer of commercial ownership, a sale file is produced, which begins the research and verification process. The initial step in sales verification involves a questionnaire, which is mailed to the purchaser (grantee) in the transaction. If a questionnaire is answered and returned, the documented responses are recorded into the computerized sales database system. If no information is provided, other sources are sought, but the sales data is documented as being unconfirmed. Actual closing statements are the most reliable and preferred method of sales verification.

VALUATION ANALYSIS (Model Calibration)

Model calibration involves the process of periodically adjusting the mass appraisal formulas, tables and schedules to reflect the current market conditions. Once the models have undergone the specification process, adjustments can be made to reflect new constructions procedures, materials and/or costs, which can vary from year to year. The basic structure of a mass appraisal model can be valid over an extended period of time, with trending factors utilized for updating the data to the current market conditions. However, at some point, if the adjustment process becomes too involved, the model calibration technique can mandate new model specifications or a revised model structure.

Cost Schedules

The cost approach to value is applied to all improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on the Marshall & Swift Valuation Service. Cost models include the derivation of replacement cost new (RCN) of all improvements. These include comparative base rates, per unit adjustments, and lump sum adjustments. This approach also employs the sales comparison approach in the valuation of the underlying land value. Time and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost service is used as a basis for the cost models, location modifiers are necessary to adjust these base costs specifically for Duval County. These modifiers are provided by the national cost services.

Depreciation schedules are developed based on what is typical for each property type at that specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. Schedules have been developed for improvements with varying years of expected life. The actual age, if known, and the effective ages of improvements are noted in CAMA. Effective age estimates are based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and its competitive position in the marketplace.

Market adjustment factors such as external and/or functional obsolescence can be applied if warranted. A depreciation calculation override can be used if the condition or effective age of a property varies from the norm by appropriately noting the physical condition and functional utility ratings on the property data characteristics. These adjustments are typically applied to a specific property type or location and can be developed via ratio studies or other market analyses.

Income Models

The income approach to value is applied to those real properties which are typically viewed by market participants and "income producing", and for which the income methodology is considered a leading value indicator. The first step in the income approach pertains to the estimation of market rent on a per unit basis. This is derived primarily from actual rent data furnished by property owners and from local market study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

A vacancy and collection loss allowance is the next item to consider in the income approach. The projected vacancy and collection loss allowance is established furnished by property owners and on local market publications. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an effective gross rent.

Next, a secondary income or service income is calculated as a percentage of stabilized effective gross rent. Secondary income represents parking income, escalations, reimbursements, and other miscellaneous income generated by the operations of real property. The secondary income estimate is derived from actual data collected and available market information. The secondary income estimate is then added to effective gross rent to arrive at an effective gross income.

Allowable expenses and expense ratio estimates are based on a study of the local market, with the assumption of prudent management. An allowance for non-recoverable expenses such as leasing costs and tenant improvements are included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios are developed for different types of commercial property based on use. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for his pro-rata share of taxes, insurance and common area maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Under this scenario, if the total operating expense in year one equates to \$8 per square foot, any increase in expense over \$8 per square foot throughout the remainder of the lease term would be the responsibility of the tenant. As a result, expense ratios are implemented based on the type of commercial property.

Another form of allowable expense is the replacement of short-lived items (such as roof or floor coverings, air conditioning, or major mechanical equipment or appliances) requiring expenditures of large sums. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses, when annualized, are known as replacement reserves.

Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves) from the effective gross income yields an estimate of net operating income.

Rates and multipliers are used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers

also vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market.

Capitalization analysis is used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analyses, can be derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. In addition, overall capitalization rates can be derived from the built-up method (band-of-investment). This method relates to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications.

Rent loss concessions are made on specific properties with vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized occupancy. The rent loss is calculated by multiplying the rental rate by the percent difference of the property's stabilized occupancy and its actual occupancy. Build out allowances (for first generation space or retrofit/second generation space as appropriate) and leasing expenses are added to the rent loss estimate. The total adjusted loss from these real property operations is discounted using an acceptable risk rate. The discounted value (inclusive of rent loss due to extraordinary vacancy, build out allowances, and leasing commissions) becomes the rent loss concession and is deducted from the value indication of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's actual occupancy is less than stabilized occupancy, a rent loss deduction may be estimated.

Eagle Appraisal & Consulting Services, a valuation firm, has been contracted by the district to perform valuations on income properties in this district, excluding mineral properties. The firm is responsible for obtaining statistics, data, performing statistical testing, and maintaining data for the valuation of this type of property.

Sales Comparison (Market) Approach

Although all three of the approaches to value are based on market data, the sales comparison approach is most frequently referred to as the Market Approach. This approach is utilized not only for estimating land value but also in comparing sales of similarly improved properties to each parcel on the appraisal roll. As previously discussed in the Data Collection/Validation section of this report, pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year in order to obtain relevant information, which can be used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the cost approach, rates and multipliers used in the income approach, and as a direct comparison in the sales comparison approach. Improved sales are also used in ratio studies, which afford the appraiser an excellent means of judging the present level and uniformity of the appraised values.

Final Valuation Schedules

Based on the market data analysis and review discussed previously in the cost, income, and sales approaches, the cost and income models are calibrated and finalized. The calibration results are keyed to the schedules and models on the mainframe CAMA system for utilization on all commercial properties in the district.

Statistical and Capitalization Analysis

Statistical analysis of final values is an essential component of quality control. This methodology represents a comparison of the final value against the standard and provides a concise measurement of the appraisal performance. Statistical comparisons of many different standards are used, including sales of similar properties, the previous year's appraised value, audit trails, value change analysis and sales ratio analysis.

Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each property type. These summary statistics include, but are not limited to, the weighted mean, standard deviation, and coefficient of dispersion, thus providing the appraisers an analytical tool by which to determine both the level and uniformity of appraised value of a particular property type. The level of appraised values can be determined by the weighted mean for individual properties within a specific type, and a comparison or weighted means can reflect the general level of appraised value. Review of the standard deviation and the coefficient of variation can discern appraisal uniformity within a specific property type.

The appraisers review every commercial property annually through the sales ratio analysis process. The first phase involves ratio studies that compare the recent sales prices of properties to the appraised values of sold properties. This set of ratio studies affords the appraiser an excellent means of judging the present level of appraised value and uniformity of the appraised values. The appraiser, based on the sales ratio statistics and designated parameters for valuation update, makes a preliminary decision as to whether the value level of a particular property type needs to be updated in an upcoming reappraisal, or whether the level of market value is at an acceptable level.

Potential gross rent estimates, occupancy levels, secondary income, allowable expenses (inclusive of non-recoverables and replacement reserves), net operating income and capitalization rate and multipliers are continuously reviewed utilizing frequency distribution methods or other statistical procedures or measures. Income model conclusions are compared to actual information obtained on individual commercial properties during the hearings process as well as information from published sources and area vendors.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The date of the last inspection, extent of that inspection, and the appraiser responsible are listed in the CAMA system. If a property owner disputes the District's records concerning this data in a protest hearing, CAMA may be altered based on the credibility of the evidence provided. If a building permit is filed for a particular property indicating a change in characteristics, that property is added to a work file. Finally, even though every property cannot be inspected each year, the chief appraiser typically designates certain segments of the area to be inspected in field checks.

Commercial appraisers are somewhat limited in the time available to field review all commercial properties of a specific use type. However, a major effort is made by the appraisal district to field review as many properties as possible or an economic area experiencing large numbers of remodels, renovations, or retrofits, changes in occupancy levels or rental rates, new leasing activity, new construction, or wide variations in sale prices. Additionally, the appraisers frequently field review subjective data items such as building class, quality of construction, condition, and physical, functional, and economic obsolescence factors contributing significantly to the market value of the property. In some cases, field reviews are warranted when sharp changes in occupancy or rental rate levels occur between building classes or between economic areas. With preliminary estimates of value in these targeted areas, the appraisers test computer assisted values against their own appraisal judgment. While in the field, the appraisers physically inspect sold and unsold properties for comparability and consistency of values.

Office Review

Office reviews are completed on properties not subject to field inspections and are performed in compliance with the guidelines set out by USPAP.

Office reviews are typically limited by the data presented in final value reports. These reports summarize the pertinent data of each property. The appraiser may review methodology for appropriateness to ascertain that it was completed in accordance with USPAP or more stringent statutory and district policies. This review process is focused primarily on locating skewed results on an individual basis.

Once the appraiser is satisfied with the level and uniformity of value for each property within their area of responsibility, the estimates of value go to noticing. Each parcel is subjected to the value parameters appropriate for its own use type. If the value of the parcel falls outside of appropriate parameters, it is placed on a rework list. Therefore, although the value estimates are determined in a computerized mass appraisal environment, value edits and rework lists enable an individual parcel review of value anomalies before the estimate of value is released for noticing.

PERFORMANCE TESTS

The primary tool used to measure mass appraisal performance is the ratio study. A ratio study compares appraised values to market values. In a ratio study, market values (value in exchange) are typically represented by sales prices (i.e. a sales ratio study). Independent, expert appraisals may also be used to represent market values in a ratio study (i.e. an appraisal ratio study). If there are not enough sales to provide necessary representativeness, independent appraisals can be used as indicators for market value. In addition, appraisal ratio studies can be used for properties statutorily not appraised at market value, but reflect the use-value requirement. An example of this is agricultural lands to be appraised on the basis of productivity or use value.

Duval CAD has adopted the policies of the IAAO STANDARD ON RATIO STUDIES, circa July, 1999 regarding its ratio study standards and practices. Ratio studies generally have six basic steps:

- (1.) determination of the purpose and objectives
- (2.) data collection and preparation
- (3.) comparing appraisal and market data
- (4.) stratification
- (5.) statistical analysis
- (6.) evaluation and application of the results

Sales Ratio Studies

Sales ratio studies are an integral part of establishing equitable and accurate market value estimates, and ultimately assessments for taxing jurisdictions. The primary use of sales ratio studies include the determination of a need for general reappraisal, prioritizing selected groups of property types for reappraisal, identification of potential problems with appraisal procedures, assist in market analyses, and to calibrate models used to derive appraised values during valuation or reappraisal cycles. However, these studies cannot be used to judge the accuracy of an individual property appraised value. The Duval County Appraisal Review Board may make individual value adjustments based on unequal appraisal (ratio) protest evidence submitted on a case-by-case basis during the hearing process.

Overall sales ratios are generated by use type CAMA at least once per year, but frequently more often, especially in specific areas to allow appraisers to review general market trends in their area of responsibility. In many cases, field checks may be conducted to insure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics. These ratio studies aid the appraisers by providing an indication of market activity by economic area or changing market conditions.

Comparative Appraisal Analysis

The commercial appraiser performs an average unit comparison in addition to a traditional ratio study. These studies are performed on commercially classed properties by property use type (such as apartment, office, retail and warehouse usage or special use). The objective to this evaluation is to determine appraisal performance of sold and unsold properties. Appraisers average unit prices of sales and average unit appraised values of the same parcels and the comparison of average value changes of sold and unsold properties. These studies are conducted on substrata such as building class and on properties located within various

economic areas. In this way, overall appraisal performance is evaluated geographically, by specific property type to discern whether sold parcels have been selectively appraised. When sold parcels and unsold parcels are appraised equally, the average unit values are similar. These horizontal equity studies are performed prior to annual noticing.

INDUSTRIAL VALUATION PROCESS

Appraisal Responsibility

Duval CAD contracts with Pritchard & Abbott, Inc. for the appraisal of industrial properties. The firm is responsible for developing fair and uniform market values for improved industrial properties and industrial vacant land. The firm is also responsible for the valuation of all tangible general industrial personal property in Duval CAD. Pritchard & Abbott, Inc. may, in some cases, subcontract with another appraisal company for the appraisal of this type of property.

Further, the firm is responsible for the collection of data, maintenance of data collection manuals, area analysis, neighborhood analysis, highest and best use analysis, market analysis, development and implementation of data collection procedures, valuation schedules, field review, office review, performance tests, sales ratio studies, and comparative appraisal analysis.

BUSINESS PERSONAL PROPERTY VALUATION PROCESS

Appraisal Responsibility

There are four different personal property types appraised by the district:

- (1.) business personal property accounts
- (2.) leased assets
- (3.) vehicles
- (4.) multi-location assets

A common set of data characteristics for each personal property account in Duval CAD is collected in the field and data entered into the district's computer system.

Valuation Approach (Model Specification)

SIC Code Analysis

Four-digit numeric codes, called Standard Industrial Classification (SIC) codes, were developed by the federal government. These classifications are used by Duval CAD as a way to classify personal property by business type.

Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of personal property is normally its current use.

Data Collection/Validation

Sources of Data

Business Personal Property

The district's property characteristic data was originally received from the Duval County Tax Office and various school district records in 1980. It has also been collected through a field data collection effort coordinated by the district over a period of time. When revaluation activities permit, the district collects new data via a field drive-out. This project results in the discovery of new businesses not revealed through other sources. Tax assessors and the local newspaper also provide the district with information regarding new personal property and other useful facts related to property valuation.

Vehicles

An outside vendor, *Just Texas*, provides Duval CAD with a listing of vehicles registered commercially in Duval County. The vendor develops this listing from the Texas Department of Transportation Title and Registration Division records. Other sources of data include property owner renditions and field inspections.

Leased and Multi-Location Assets

The primary source of leased and multi-location assets is property owner renditions of property. Other sources of data include field inspections.

VALUATION AND STATISTICAL ANALYSIS (MODEL CALIBRATION)

Cost Schedules

Due to lack of viable information within the district, the appraisal district staff relies largely upon the Guide issued by the Comptroller of Public Accounts. A local modifier is developed and applied to the Guide, where applicable.

Statistical Analysis

Summary statistics including, but not limited to, the median, weighted mean, and standard deviation provide the appraisers an analytical tool by which to determine

both the level and uniformity of appraised value. Review of the standard deviation can discern appraisal uniformity.

Depreciation Schedule and Trending Factors

Duval CAD's primary approach to the valuation of business personal property is the cost approach. The replacement cost new (RCN) is either developed from property owner reported historical cost or from Duval CAD developed valuation models. The trending factors used by Duval CAD to develop RCN are based on published valuation guides. The percent good factors used by Duval CAD are also based on published valuation guides. The index factors and percent good depreciation factors are used to develop present value factors (PVF), by year of acquisition, as follows:

$$\text{PVF} = \text{Index Factor} \times \text{percent Good Factor}$$

The PVF is used as an "express" calculation in the cost approach. The PVF is applied to reported historical cost as follows:

$$\text{Market Value Estimate} = \text{PVF} \times \text{Historical Cost}$$

This mass appraisal PVF schedule is used to ensure that estimated values are uniform and consistent within the market.

INDIVIDUAL VALUE REVIEW PROCEDURES

Office Review

Business Personal Property

Property owner renditions, accounts with field or other data changes, accounts with prior hearing information, new accounts, and SIC cost table changes are all reviewed and considered.

Vehicles

A vehicle master file (in hard copy form) is received from an outside vendor and vehicles in the district's system from the prior year are programmatically matched to current DOT records. These vehicles are matched to existing accounts and new accounts are created as needed.

Only those vehicles that are used in a commercial enterprise are appraised and listed on the appraisal roll. Personal use vehicles are exempt from taxation.

After matching accounts and data entry, notices are generated and reviewed. Once proofed, the notices are mailed according to Section 19 requirements.

PERFORMANCE TESTS

Ratio Studies

Each year the Property Tax Division of the state comptroller's office conducts a property value study (PVS). The PVS is a ratio study used to gauge appraisal district performance. Results from the PVS play a part in school funding. Rather than a sales ratio study, the personal property PVS is a ratio study state cost and depreciation schedules to develop comparative personal property values. These values are then compared to Duval CAD's personal property values and ratios are determined.

Internal Testing

Duval CAD can test new or revised cost and depreciation schedules by running the valuation program in a test mode prior to the valuation cycle. This can give the district a chance to make additional refinements to the schedules if necessary.

LIMITING CONDITIONS

The appraised value estimates provided by the district are subject to the following conditions:

1. The appraisals were prepared exclusively for ad valorem tax purposes.
2. The property characteristic data upon which the appraisals are based is assumed to be correct. Exterior inspections of the property appraised were performed as staff resources and time allowed.
3. Validation of sales transactions was attempted through questionnaires to buyers and field reviews. In the absence of such confirmation, residential sales data obtained from vendors was considered reliable.
4. I have attached a list of those providing significant mass appraisal assistance to the person signing this certification.

Certification Statement:

"I, Raul Garcia, Chief Appraiser for the Duval County Appraisal District, solemnly swear that I have made or caused to be made a diligent inquiry to ascertain all property in the district subject to appraisal by me, and that I have included in the records all property that I am aware of at an appraised value which, to the best of my knowledge and belief, was determined as required by law."

Raul Garcia, Chief Appraiser

PERSONS PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

<u>NAME</u>	<u>TITLE</u>	<u>TYPE OF ASSISTANCE</u>
Raul Garcia	Chief Appraiser	Ratio Studies Schedule Studies & Development Research Field Inspections Appraisals
Rina E. Guerra	Appraiser Duval County Appraisal Dist.	Field Inspections Research
Lynette Garcia	Appraiser Duval County Appraisal Dist.	Field Inspections Research
Pritchard & Abbott. Inc	Appraisal Firm	Field Inspections Research Minerals & IEBP