



# Parker County Appraisal District 2021 Mass Appraisal Report

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## **OVERVIEW OF PARKER COUNTY APPRAISAL DISTRICT**

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

The Parker County Appraisal District (PCAD) has prepared and published this mass appraisal report to provide our citizens and taxpayers with a better understanding of the district's appraisal responsibilities and activities as they relate to the mass appraisal of real and personal property in Parker County. When mass appraisal techniques are employed, the Chief Appraiser is required to prepare and certify a mass appraisal report at the conclusion of the appraisal portion of the property tax calendar. It is the intent of this report to identify the analysis, data, appraisal techniques and methodologies, valuation conclusions and statistical testing that make up the annual mass appraisal efforts of Parker County Appraisal District.

Texas Appraisal Districts are required by law to use appraisal methodology and procedures in the appraisal of property for ad valorem tax purposes that comply with the Texas Property Tax Code, as well as the Uniform Standards of Professional Appraisal Practice (USPAP). The 2021 Parker County Appraisal District Mass Appraisal report references the 2020 - 2021 edition of the Uniform Standards of Professional Appraisal Practice (USPAP) as established by the Appraisal Standards Board of The Appraisal Foundation, authorized by the United States Congress as the source of Appraisal Standards and Appraiser Qualifications. The purpose of USPAP is to promote and maintain a high level of public trust in appraisal practice by establishing requirements for appraisers. USPAP contains ten standards that establish the requirements for appraisal, appraisal review and appraisal consulting services and identify the methods for reporting the results of each activity.

USPAP Standards 5 & 6 specifically establishes the requirements for the development and communication of a mass appraisal. Mass Appraisal is defined as the process of valuing a group of similar properties as of a given date using standard methodology, employing common data, and allowing for statistical testing. This is accomplished with standardized data collection procedures, specification and calibration of mass appraisal models, tables and schedules. Ratio study analysis and other performance measures are then used to test appraisal uniformity and accuracy. USPAP Standard 6 defines the requirements for a mass appraisal written report. The rule states that report should clearly communicate the elements, results, opinions and value conclusions of the mass appraisal effort.

The Parker County Appraisal District 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. The appraisal district is responsible for appraising property for ad valorem purposes. A five-member board of directors, appointed by the taxing units within the boundaries of Parker County, constitutes the district's governing body. The chief appraiser, appointed by the Parker County Appraisal District Board of Directors, is the chief administrator and chief executive officer for the appraisal district.

It is also the responsibility of the board to appoint the Appraisal Review Board (ARB) members, approve the appraisal district budget, and adopt general policies. For 2022, new ARB members will be appointed by the Local Administrative District Judge. The board of directors does not have the authority to value property or administer exemptions. Rather to ensure adherence with generally accepted appraisal practice, the board is responsible for the adoption of a biennial, written plan for the reappraisal of all property within the CAD boundaries. For 2021, PCAD is operating under the guidelines established in the 2021-2022 Reappraisal Plan.

Effective as of September 1, 2007, the Parker County Appraisal District boundaries are the same as the county's boundaries. PCAD is responsible for local property tax appraisal, collection, and exemption administration for the 33 jurisdictions or taxing units located in Parker County.

Each taxing unit, such as the county, a city, school district, municipal utility district, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public education, road and street maintenance, courts, water and sewer systems, and other public services. The purpose of appraisal district property appraisals is to establish values that are used by the taxing units to calculate and allocate the annual tax burden. The taxing units are the intended primary user of the appraisal records. The Texas Property Tax Code contains statutes that guide the administration of property tax laws in Texas. For the most part, the tax code defines the scope of work required for local property tax appraisals. Appraisals are based on each property's worth or market value, unless otherwise specified. PCAD also administers and determines eligibility for various types of property tax exemptions that are authorized by state and local governments; such as those for homeowners, the elderly, disabled persons, disabled veterans, and charitable or religious organizations.

Parker County Appraisal District attempts to comply with all requirements of the Texas Public Information Act. This Act gives the public the right to request access to government information. PCAD maintains a website in order to make appraisal information more readily accessible. The public can search for account level property data, view parcel maps and print a number of forms and applications. The site also includes several reports that summarize 2021 appraised value and exemption information for each taxing unit. The PCAD website address is [www.parkercad.org](http://www.parkercad.org).

A property taxpayer, whether residential or commercial, is responsible for paying taxes and has a reasonable expectation that the taxing process will be fair. A citizen board, called the Appraisal Review Board (ARB), hears any disagreements between a property owner and the appraisal district. The appraisal district's board of directors appoints residents from the community to serve as ARB members. For 2022, new ARB members will be appointed by the Local Administrative District Judge. A property owner can protest any appraisal district action that impacts the property's tax liability. In 2021, property owners or their representatives filed approximately 12,900 protests. Property owners have up until January 31<sup>st</sup> or their specified tax delinquency date to continue to file motions regarding 2021 valuation and clerical error issues. Hearings for these and any subsequent protests will occur periodically throughout the remainder of 2021 through the beginning of 2022.

***In Texas, all real and tangible business personal property located in the State's jurisdiction, is taxable unless exempt by law. Taxable property is appraised annually, at its "market value" as of January 1<sup>st</sup> except as otherwise provided by the Property Tax Code. Under the tax code, "market value is the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:***

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

The Property Tax Code further defines special appraisal provisions for the valuation of residential homestead property (Sec. 23.23), land designated for agricultural use (Sec. 23.41), real property inventory (Sec. 23.12), dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), nominal (Sec. 23.18) or restricted use properties (Sec. 23.83) and allocation of interstate property (Sec. 23.03). Section 23.12 also provides for an alternative appraisal date of September 1<sup>st</sup> for owners of real property inventory and certain types of business personal property inventory.

The Texas Property Tax Code, under Sec. 25.18, requires each appraisal office to implement a plan to update appraised values for real property at least once every three years. The district's current policy is to conduct a general reappraisal of real and business personal property value every other year, meaning that a property's appraised value is established and reviewed for equality and uniformity on a biennial basis. PCAD makes every effort to conduct an annual onsite field review of real property and personal property is inspected on an annual basis.

The appraised value of real and business personal property is calculated using specific information and data about each property. Using a computer-assisted mass appraisal (CAMA) software system, and generally recognized appraisal methods and techniques, registered and trained appraisers compare the subject property information with the data for similar properties, and with recent market data. The district adheres to the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable. Chapter 23 of the Texas Property Tax code contains statutes dealing with appraisal methods and procedures. Section 23.01 of this chapter was amended in 1997 to specify that appraisal districts are required to comply with the mass appraisal standards of USPAP (Standard 5 & 6) when the appraised value of a property is established using mass appraisal techniques. 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 all district operations. The Administration Division's function is to plan, organize, direct and control the business support functions related to human resources, budget, finance, records management, purchasing, fixed assets, facilities maintenance and mail service.

The Collection Division has divisions that perform various functions including current and delinquent tax collection, customer service, and exemptions administration. The Information Services Division maintains PCAD's Information Technology infrastructure. The PCAD website is operated and maintained by Southwest Data Solutions and offers a myriad of data information that is available for on-line viewing. Several sets of data products are also available for download, including PCAD's plats, and PDF maps.

The Appraisal division is responsible for the valuation of all real and business personal property. The Appraisal Division is divided between Commercial, Residential, and Business Personal Property/Minerals. PCAD contracts with Pritchard & Abbott, an outside appraisal consulting firm for the valuation of all oil and gas mineral property in Parker County.

All appraisal district appraisers 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 (TDLR). This agency is responsible for ensuring appraisers are professional, knowledgeable, competent and ethical. TDLR administers a statewide program of registration, education, experience, testing and certification for all property tax appraisers as specified by law. The Texas Comptroller's Property Tax Assistance Division is responsible for approving the actual appraisal coursework. Appraisers must be in strict compliance with the TDLR standards of professional practice, conduct, education, and ethics. The agency can deny, suspend, or revoke the registration of an appraiser who performs in an unprofessional manner or violates any provisions of the Appraiser Certification Act.

As provided for in the 2021 adopted budget, the appraisal district staff consists of employee positions with the general following classifications:

- Administration
- Appraisal
- Collections
- Mapping
- Records

## **Data**

The latest statistics from the U.S. Census Bureau indicate that Parker County has an estimated population of 148,222. This represents a 27% increase in population since 2010. 24.8% of county residents are age 18 and under, including a 15.3% senior citizen population. Parker County's largest city is Weatherford, with an estimated population of 30,854 residents.

Census bureau figures indicate that Parker County included approximately 2,971 privately owned businesses and approximately 57,427 housing units. The estimated homeownership rate from 2017-2021 is 84%.

Parker County covers a total area of approximately 900 square miles. A total of 33 taxing units have property that lie within the geographical boundaries of Parker County. PCAD is responsible for developing and reporting appraisal roll data to each of these entities on an annual basis. These taxing units include portions or all of 13 school districts, the largest being Weatherford Independent School District. PCAD also reports to 10 cities, Parker County, Weatherford

College, Parker County Hospital District, Parker Lateral Road, 6 Emergency Services Districts, and 2 Municipal Utility Districts.

For 2021, Parker County Appraisal District's total appraisal roll responsibility included establishing and maintaining approximately 91,338 real property and 3,827 business personal property accounts located within the boundaries of Parker County. Additionally, mineral accounts are created when a property owner has a producing mineral interest in an oil or gas well. For 2021 there were 26,594 mineral interest accounts. Appraisal records contain information related to property characteristics, ownership and exemption status. Accurate ownership data is maintained by processing recorded deeds and plats that are provided by the Parker County Clerk's office. Exemption data is developed in conjunction with various application requirements as stipulated in the Property Tax Code.

Relevant property characteristics data is collected and maintained through on-site field reviews that are conducted as part of the 2021-2022 Reappraisal Plan. Existing property characteristics are verified or updated per field data collection procedures. Property data related to new construction and other building permit activity is collected during the annual field effort. Some cities within PCAD's jurisdiction provides permit information in paper form. Comparable sale and income data is also routinely validated as part of the building permit field review and reappraisal activities. Other methods of data collection and maintenance include aerial photography, private and published sale sources, newspaper articles, various real estate related websites, and information from property owners.

General demographic, economic and financial trends, construction cost, and market sales and income data are acquired through various sources. These may include internally generated questionnaires to buyer and seller, public and university research centers, private market data vendors, real estate related publications and telephone contact with buyers, sellers, brokers and fee appraisers. The appraisal divisions have appraisal staff assigned to research functions and they are responsible for collecting this type of data.

The district has a geographic information system (GIS) that maintains cadastral maps and includes various layers of data, including parcel lines, FEMA flood data, jurisdictional boundaries and aerial photography. The district's website makes a broad range of information available for public access, including detailed information on appraisal district operations. The public can also access online information, from PCAD's website, that includes property characteristics data, certified values, protests and appeal procedures, property maps, and a tax calendar. Downloadable files of related tax information and district forms, including exemption applications, and business personal property renditions are also available on the website.

### **Information Services Support**

The Information Services Division (IS) provides direct support for all appraisal functions, collections, customer service, exemption administration, records, and the Appraisal Review Board. Server data is also utilized to fulfill all the reporting requirements for the taxing units and the State Comptroller's Property Tax Assistance Division.

### **Independent Performance Test**

For 2021, the Parker County Appraisal District will be subject to the State Comptroller's Property Tax Assistance Division's (PTAD) Property Value Study (PVS). According to Chapter 5 of the TPTC and Section 403.302 of the Texas Government Code, the State Comptroller's Property Tax Assistance Division is required to conduct a biennial property

value study of each Texas school district within each appraisal district. As a part of this biennial 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 13 independent school districts in the Parker County Appraisal District for which appraisal rolls are annually developed and tested. The preliminary results of this study are released in January in the year following the year of appraisal. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of appraisal. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

For 2022, Parker County Appraisal District will be subject to a MAP (Methods, Assistance, Procedures) review by the Property Tax Assistance Division. House Bill 8, effective Jan. 1, 2010, amended Tax Code Section 5.102 to require the Comptroller of Public Accounts to review county appraisal district (CAD) governance, taxpayer assistance, operating standards and appraisal standards, procedures and methodology at least once every two years. HB 8 also amended Government Code Section 403.302 to change the frequency of the property value study for school districts from every year to every other year.

The MAP review contains nine scores. The first 4 are based on mandatory requirements. An appraisal district must pass all mandatory requirements for the school districts in the county to be eligible for "grace period" determinations and local value assignments to the Texas Education Agency.

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# Appraisal Activities

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## INTRODUCTION

### General Appraisal Responsibilities

Parker County Appraisal District appraisal responsibilities are divided between 3 appraisal divisions; residential, commercial, and business personal property. Each division contains an appraisal and research section. PCAD contracts with an outside firm, Pritchard & Abbott to handle mineral valuations.

In both the residential and commercial division, the appraisal staff is responsible for collecting and maintaining property characteristic data for classification, valuation, and information processes. Accurate valuation of real and personal property by any method requires a physical description of personal property, land, and building characteristics. An effective data collection effort involves the regular field inspection of all real and personal property accounts. It is the goal of PCAD appraisal divisions to annually complete a thorough, on-site field review, for residential and commercial properties. Business personal property data is field-verified every year. Meeting this goal is dependent on budgetary constraints and staffing levels.

### Appraisal Resources

- **Personnel** - Each appraisal division activity within Parker County Appraisal District is supported with a staff of appraisers and clerical support staff. These employees are assigned to a specific appraisal division; however, many staff appraisers have experience and knowledge in the mass appraisal of all categories of property.
- **Data** - Existing property characteristics data, for the residential appraisal staff, the commercial appraisal staff and the business personal property staff is contained in a CAMA software system. All appraisers verify existing property characteristics, record changes to property data and collect new data. Existing data from the CAMA software system, along with PCAD GIS maps (with ortho-photography) can be accessed through computers and/or mobile devices provided by PCAD. Other field inspection resources may include sales and income data, fire damage reports, private water and electrical service applications, building permits, building plans, site plans, photos and actual cost information.

## PRELIMINARY ANALYSIS

### Data Collection/Validation

Data collection of real property involves entering and maintaining data characteristics of the property in the CAMA software system. The information contained in this system includes specific land and improvement characteristics such as deeded land size, building size, square foot of living area, year built, quality of construction, and property condition. Appraisers in the commercial and residential appraisal divisions use standardized appraisal classification manuals, developed by Parker County Appraisal District, to establish uniform procedures for the correct listing of real property components. All properties are coded according to these manuals and the approaches to value are structured and

calibrated based on this coding system. The appraisers are given instruction for use and application of the manual during their initial training. The manual serves as a resource guide in the field inspection of properties. Data collection for personal property also involves maintaining information in the CAMA software system. The type of information contained in the CAMA software system includes personal property such as business inventory, furniture and fixtures, machinery and equipment, cost and location. The field appraisers conducting on-site inspections are instructed on how to correctly identify and list all taxable business personal property.

The property classification manuals that are utilized by the appraisal divisions are available in the district offices. Upon request, a property owner/agent may purchase a copy of a property classification manual. The contents of the manuals are periodically reviewed by staff in each appraisal division and updated as warranted.

## **Sources of Data**

The sources and methods of data collection include the following; new construction/building permit field effort, property inspections during a scheduled reappraisal cycle, data mailers, informal and formal appeals hearings, residential and commercial sales collection and verification, newspapers and publications, and property owner's written correspondence or phone contact. A critical source of data comes from building permits received from taxing jurisdictions that require property owners to take out a building permit. As permits are issued by an entity, a copy is forwarded to the appraisal district, generally on a monthly basis. The permits are then matched to the appropriate real estate account and set up for a field inspection by either the commercial or the residential appraisal division. The commercial appraisal staff also collects business personal property data as part of the field inspection procedure.

In residential appraisal, an on-site review of entire neighborhoods is generally a good source for data collection. Appraisers drive entire neighborhoods to review the accuracy of the existing data and verify appropriate application of the appraisal classification manual. The commercial and business personal property appraisal staff works together to verify the accuracy of both personal and real property data during each reappraisal cycle. Changes or additions to a property are also noted during this process. The sales collection effort in real property appraisal pertains to the collection and verification of data for properties that have recently sold. In residential, this effort involves on-site inspection by field appraisers to both verify the accuracy of the property characteristics data and confirm the sales price. In the commercial appraisal division, the research section is responsible for verification of sales and other relevant model-driven data.

Property owners are one of the best sources for identifying incorrect data that generates a field check. Frequently, the property owner provides enough documentation to allow correction of records without having to send an appraiser on-site. As the district has increased the amount of information available on the Internet, property owner's requests to correct data inconsistencies has also increased. As a result, staff appraisers are involved in this type of fieldwork on a year-round basis.

## **Data Collection Procedures**

Field data collection requires organization, planning and management of the field effort. Property specific, standardized data collection procedures have been established for all residential, commercial, and personal property. Management teams in each appraisal division plan for and coordinate appraisal resources to accomplish all necessary field data collection. Appraisers are generally assigned specific areas to conduct field inspections and are trained in the appropriate manner to record information on a field collection document.

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 appraiser. New appraisers are trained in the specifics of data collection as specified in the appraisal classification manual. Experienced appraisers receive routine training on standardized division procedures prior to major field projects such as new construction, sales validation or data review. A quality assurance process exists through review of the work performed by the field appraisers. Quality assurance includes the responsibility of ensuring that appraisers follow manual and training procedures, identifying training issues and providing uniform training throughout the field appraisal staff.

## **Data Maintenance**

Residential appraisers/clerks enter appraisal changes into the CAMA software system. Entry screens are standardized and formatted to insure uniform processing of the information. All data entry work completed in this area is sent to clerical support staff for data quality control. In addition, management and quality control specialists produce query (edit) reports on a continual basis for review. These reports are written to identify potential data entry errors and review appraisal field collection results.

The commercial appraisal staff is responsible for the data entry of most commercial appraisal related change directly into the CAMA software system. The software application is highly standardized and contains numerous up-front data entry edits to prevent potential data entry errors. Additional quality control of the data occurs through the production and review of various query reports.

The business personal property staff that is responsible for entry of BPP appraisal changes during the data collection phase along with preliminary entry of rendition data. The appraisal staff then completes rendition processing during the valuation phase of the appraisal cycle. The personal property staff also reviews numerous post-entry edits to verify the quality and accuracy of all BPP data and information.

## **DATA REVIEW PROCEDURES**

### **Field Review**

A field review of certain geographic areas or neighborhoods in the jurisdiction is completed during the district's reappraisal effort. In addition, field inspections are scheduled based on permit activity or when a property owner identifies an error in PCAD's physical characteristics data. The date of last inspection, extent of that inspection, and the PCAD appraiser initials are listed in the CAMA property record. Property owners sometimes dispute district data in ARB hearings or during the informal appeals process. When documented and supported, the property record may be modified based on the evidence provided by the owner. However, a field inspection may be warranted to verify this evidence for the current year's valuation or the appraisal division may code the property for a field review for the next year's valuation.

### **Office Review**

Query's, edit and audit reports are generated on a continual basis to review the accuracy and uniformity of all field collected data. Appraisal managers review appraiser paperwork and conduct on-site field checks to ensure accuracy and uniform application of division standards as described in the appraisal classification manual.

## **PERFORMANCE TEST**

Appraisal managers and appraisal staff are responsible for conducting ratio studies and comparative analysis. Ratio studies are conducted on property located within certain neighborhoods or districts by appraisal staff. The sale ratio and comparative analysis of sale property to appraised property forms the basis for determining the level of appraisal and market influences and factors for the neighborhood. This information is the basis for updating property valuation for the entire area of property to be evaluated. Field appraisers, in many cases, may conduct field inspections to ensure the accuracy of the property descriptions at the time of sale for this study. This inspection is to ensure that the ratios produced are accurate for the property sold and that appraised values utilized in the study are based on accurate property data characteristics observed at the time of sale. Also, property inspections are performed to discover if property characteristics had changed as of the sale date or subsequent to the sale date. Sale ratios should be based on the value of the property as of the date of sale not after a subsequent or substantial change was made to the property after the negotiation and agreement in price was concluded. Properly performed ratio studies are a good reflection of the level of appraisal for the district.

Appraisal managers and appraisal staff are responsible for conducting ratio studies and comparative analysis. (Refer to the individual valuation process summary reports). Field appraisers, in many cases may conduct field inspections to ensure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics.

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# Residential Valuation Process

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## INTRODUCTION

### Scope of Responsibility

The Residential Valuation appraisers are responsible for developing equal uniform market values for improved and vacant residential property. There were approximately 57,282 residential improved parcels and 11,594 vacant residential properties in Parker County for the 2021 appraisal year.

Residential appraisal assignments are kept delineated from commercial assignments based on state code guidelines, established by the State Property Tax Division. Generally, the residential staff handles Category A, D, E, O, C1 (Residential Lots & Tracts), & M1 (Mobile Home Improvement Only). A description of these codes is available on the Comptroller of the State of Texas website.

### Appraisal Resources

- **Personnel** - The staff consists of a Director of Appraisal, 11 residential appraisers, and clerical support staff.
- **Data** - A common set of data characteristics for each residential dwelling in Parker County is collected in the field and data entered to the CAMA software system. This property-specific data drives the PCAD modeled approaches to valuation. Residential appraisal also requires verified sales data, rental information, actual construction cost data, and property listings. Appraisers also review various real estate related publications to determine patterns and trends in the market data.

## 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 and provide the appraisers with a current economic outlook on the real estate market. Information is gleaned from real estate publications and websites and through the continuing education process, in the form of IAAO and TDLR-required classes.

### 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, manageable subsets of the universe of properties known as neighborhoods.

The first step in neighborhood analysis is the identification of a group of properties that share certain common traits. A "neighborhood" for analysis purposes is defined as a 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. As new neighborhoods in a community are developed, they compete with existing neighborhoods. An added supply of new homes tends to induce population shift from older homes to newer homes. In the period of stability, or equilibrium, the forces of supply and demand are about equal. Generally, in the stage of equilibrium, older neighborhoods can be more desirable due to their stability of residential character and proximity to the workplace and other community facilities. The 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.

Neighborhood identification and delineation is the cornerstone of the residential valuation system at the district. All the residential analysis work done in association with the residential valuation process is neighborhood specific. Neighborhoods are field inspected and delineated based on observable aspects of homogeneity. Neighborhood delineation is periodically reviewed to determine if further neighborhood delineation is warranted. Whereas neighborhoods involve similar properties in the same location, a neighborhood group is simply defined as similar neighborhoods in similar locations. Each residential neighborhood is assigned to a neighborhood group based on observable aspects of homogeneity between neighborhoods. Neighborhood groups, or clustered neighborhoods, increase the available market data by linking comparable properties outside a given neighborhood and is highly beneficial in areas of limited or no access. Sales ratio analysis, discussed below, is performed on a neighborhood basis, and in soft sale areas on a neighborhood group basis.

### **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 remains residential, further 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 miss-improvements, and the highest and best use 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.

## **VALUATION AND STATISTICAL ANALYSIS**

The district recognizes that the Cost Approach is one of the acceptable approaches to value but considers the Market Approach a more viable and accurate indicator of value due to its being more sensitive to economic, social and physical characteristics of a given property.

Statistical analysis of present appraised value as compared with recent sales determines the market adjustment for a neighborhood.

The district uses the CAMA Cost Model Analysis to develop the market adjustment for a neighborhood.

## **Sales Information**

A sales file is maintained for the storage of “snapshot” sales data at the time of sale. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyer and seller, field discovery, protest hearings, Multiple Listing Service (MLS), various sale 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 or neighborhood sales reports are generated as an analysis tool for the appraiser in the development of value estimates.

## **Land Analysis**

Residential land analysis is conducted by each of the residential appraisers. The appraisers develop a base lot value or site rating for each residential parcel. Specific land influences are used, where necessary, to adjust parcels outside the neighborhood norm for such factors as view, shape, size, and topography, among others. The appraisers use abstraction and allocation methods to ensure that the land values created best reflect the contributory market value of the land to the overall property value.

## **Statistical Analysis**

The residential valuation appraisers perform statistical analysis to evaluate whether values are equitable and consistent with the market. Ratio studies are conducted on all residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy--level and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each stratified neighborhood and are summarized by year. These summary statistics including, but not limited to, the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion provide the appraisers a tool by which to determine both the level and uniformity of appraised value on a stratified neighborhood basis. The level of appraised values is determined by the weighted mean for individual properties within a neighborhood, and a comparison of neighborhood weighted means reflect the general level of appraised value between comparable neighborhoods. Review of the standard deviation, coefficient of variation, and coefficient of dispersion discerns appraisal uniformity within and between stratified neighborhoods.

The appraiser, through the sales ratio analysis process, reviews every neighborhood. The first phase involves neighborhood ratio studies that compare the recent sales prices of neighborhood properties to the appraised values of these 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 sales. The 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 neighborhood needs

to be updated in an upcoming reappraisal, or whether the level of market value in a neighborhood is at an acceptable level.

## **Market Adjustment or Trending Factors**

Neighborhood, or market adjustment, factors are developed from appraisal statistics provided from ratio studies and are used to ensure that estimated values are consistent with the market. The district's primary approach to the valuation of residential properties is the market adjusted cost approach.

Time adjustments of sales are analyzed using the sales ratio trend analysis method. Statistics produced from the time adjustment study produce measures of central tendency (mean and median) that represent the level of appraised values, and measures of uniformity (coefficient of dispersion and coefficient of variation) that represent the consistency of appraised values within and between strata. The resulting medians were graphically plotted for examination and analysis. A linear regression routine was performed on each of the school district samples, along with specific market areas. Linear regression statistics, such as the coefficient of determination ( $R^2$ ) and the P-value, identify the reliability and significance, respectively, of the regression outcome, namely, the independent variable of time. A time adjustment for each market area sample was produced. Analysis was then performed on each school district sample to determine the appropriate time adjustment to be employed, or if a time adjustment was even warranted.

The district uses the CAMA software system Comp Modeling for residential properties to generate a comparable sales grid and a comparable equity grid. These reports make various adjustments (including land value, size, and amenities) and return an indicated value for the subject property. These reports are used to represent the derived values to the public and/or the Appraisal Review Board.

## **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 in the value of that property are "limited." 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 percent for each year since the property was re-appraised;
- PLUS the value of any improvements added since the last re-appraisal.

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

An analogous provision applies to new homes. While a developer owns them, unoccupied residences are appraised as part of an inventory using the district's land value and the developer's construction costs as of the valuation date. However, in the year following sale, they are reappraised at market value.

## RESIDENTIAL INVENTORY

Section 23.12 of the Texas Property Tax code provides the definition of market value:

- (a) Except where provided by Sections 23.121, 23.1241, 23.124, and 23.127, the market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business. An inventory shall include residential real property which has never been occupied as a residence and is held for sale in the ordinary course of a trade or business, provided that the residential real property remains unoccupied, is not leased or rented, and produces no income.
- (b) The chief appraiser shall establish procedures for equitable and uniform appraisal of inventory for taxation.
- (c) In appraising an inventory, the chief appraiser shall use the information obtained pursuant to Subsection (b) of this section and shall apply generally accepted appraisal techniques in computing the market value as defined in Subsection (a) of this section.

Residential inventory is appraised at market value. The market value of residential inventory is the price at which it would sell as a unit to a purchaser who would continue the business. The residential appraisal staff applies the same generally accepted appraisal techniques to determine the market value of residential real property inventory.

## AGRICULTURAL APPRAISAL

The Texas Constitution permits certain kinds of agricultural land to be appraised for tax purposes at a productivity value, rather than at market value. This special appraisal value is based solely on the land's capacity to produce agricultural products. Property qualifying for agricultural appraisal will have a substantial reduction in taxes, based on the difference in special agricultural appraisal and the market value of the property. Property taxes are deferred until a change of use of the property occurs or, in a much less frequently requested type of special agricultural appraisal, when the ownership changes. At the time of use or ownership change, taxes are recaptured for up to 3 previous years plus 0% interest, based on the difference in what was paid based on agricultural appraisal, and what would have been paid based on the market value of the property. Procedures for implementing this appraisal are based on the guidelines published in the Manual for the Appraisal of Agricultural Land, printed October of 2020. A copy may be obtained from the State Comptroller of Public Accounts, Property Tax Assistance Division.

## APPLICATION PROCESS

The State Property Tax code requires an application before land is considered for agricultural valuation. The deadline for filing a timely application is before May 1. Late agricultural valuation applications may be filed up to the time the appraisal roll is certified, however a penalty of 10% is imposed for late filing. After an application is filed, the property is inspected to determine its qualification.

Three criteria must be met when determining qualification.

**Use** – Land must be currently devoted principally to agricultural use.

**Degree of Intensity** – The agricultural use must be to the degree of intensity generally accepted in the area.

**History of Use** - The land must have been devoted principally to agricultural use for 5 of the preceding 7 years. Land located within an incorporated city or town must have been devoted principally to agricultural use continuously for the preceding 5 years.

**Application is Denied** – Property owner is notified of the decision and the productivity land appraised value. Once approved, the property remains valued as a special agricultural use until a change of use occurs, or the ownership changes. If the property’s use remains unchanged and only ownership has changed, the new owner is notified and is required to timely apply for special agricultural valuation.

**Application is Approved** – Property owner is notified of the decision and the productivity land appraised value. Once approved, the property remains valued as a special agricultural use until a change of use occurs, or the ownership changes. If the property’s use remains unchanged and only ownership has changed, the new owner is notified and is required to timely apply for special agricultural valuation.

**Disapprove the Application and Request More Information** – The application is disapproved and the applicant is allowed 30 days to provide additional information, otherwise the application is denied. When requested information is provided, it is added to data already collected to arrive at a final decision.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### ***Field Review***

The 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 periodically to check for accuracy of data characteristics.

As the district's parcel count has increased through new home construction, and the homes constructed in the boom years of the late 70's and early 80's experience remodeling, the appraisers are required to perform the field activity associated with transitioning and high demand neighborhoods. Increased sales activity has also resulted in a more substantial field effort on the part of the appraisers to review and resolve sales outliers. Additionally, the appraiser frequently field reviews subjective data items such as quality of construction, condition, and physical, functional and economic obsolescence, factors contributing significantly to the market value of the property. During this review, the appraiser is able to physically inspect both sold properties and unsold properties for comparability and consistency of values.

### **Office Review**

Given the ample resources and time required to conduct a routine field review of all properties, homogeneous properties consisting of tract housing with a low variance in sales ratios and other properties having a recent field inspection date are value reviewed in the office. Valuation reports comparing previous values against proposed and final values are generated for all residential improved properties. The dollar amount and percentage of value difference are noted for each property within a delineated neighborhood allowing the appraiser to identify, research and resolve value anomalies before final appraised values are released. Previous values resulting from a hearing protest are individually reviewed to determine if the value remains appropriate for the current year.

Once the appraiser is satisfied with the level and uniformity of value for each neighborhood within his area of responsibility, the estimates of value are ready for notification.

## **PERFORMANCE TESTS**

### **Sales Ratio Studies**

The primary analytical tool used by the appraisers 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 ISD over different time periods to allow the appraiser to review general market trends within their area of responsibility, and provide an indication of market appreciation over a specified period of time. Reported in the sales ratio statistics for each school district is a level of appraisal value and uniformity profile by market area and neighborhood, sales trends by time periods, and appraisal value ranges. The ratio studies are designed to emulate the findings of the state comptroller's biennial property value study for category "A" property.

### **Management Review Process**

Once the proposed value estimates are finalized, the appraiser reviews the sales ratios by neighborhood and presents pertinent valuation data, such as, history of hearing protest, sale-to-parcel ratio, and level of appraisal to the Chief Appraiser for final review and approval. This review includes comparison of level of value between related neighborhoods within and across jurisdiction lines. The primary objective of this review is to ensure that the proposed values have met preset appraisal guidelines appropriate for the tax year in question.

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# Commercial Valuation Process

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## INTRODUCTION

### *Appraisal Responsibility*

The commercial (real property) appraisal division is responsible for the valuation of all commercial real property, including land and improvements, located within the boundaries of the Parker County Appraisal District's jurisdiction. For 2021, this included approximately 6,577 vacant parcels and 3,148 improved parcels. Commercial real property types generally include multi-family, office, retail, warehouse/manufacturing and various other categories of business-related facilities. The staff appraisers also value all commercial vacant parcels. In general terms, the commercial appraisal staff is responsible for the establishing market value on any real property for which the highest and best use is determined to be non-residential.

Commercial appraisal assignments are kept delineated from residential assignments based on state code guidelines, established by the State Property Tax Division. Generally, the commercial staff handles Category B, C1, and all F category properties. Residential properties located in areas of transition to commercial, or interim-use properties, are also valued by the commercial division. If the interim-use property does not have a residential homestead exemption, the property data and valuation models, for these accounts, are maintained by the commercial division. Otherwise, the records are maintained by the residential division, for purposes of calculating the 10% limitation on increases to the appraised value for a property with a general residential homestead exemption.

Commercial appraisers are required to value the fee simple interest of properties according to statute. However, the effect of easements, restrictions, encumbrances, leases, contracts or special appraisal provisions 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.

The Commercial Appraisal division is primarily responsible for collecting, processing, and maintaining sales and income information that is used in the valuation process. The information is easily accessible for the appraisers to use in the sale model building and calibration process, edit process, informal discussions, and Appraisal Review Board hearings. Land sales data is processed and posted to appraisal maps which are also accessible. Commercial appraisers are also given the task of completing a field review for all permits issued in their designated area.

The Commercial division is responsible for updating and maintaining the commercial classification manual. This process includes the periodic review and calibration of various cost and depreciation tables, monitoring and implementing new or revised appraisal methods and techniques in order to stay proficient with current appraisal technique and maintain compliance with USPAP. An extensive resource library is maintained and includes commercial real estate and financial publications, published survey data, on-line appraisal data sources, appraisal educational textbooks and software, periodicals and journals, comptroller's reports and various other resources to assist the appraisal process.

This section is also responsible for valuing complex and unique properties. The complex and unique properties consist

of golf courses, office buildings, local airports, shopping malls, hospitals, and power centers. Also, the Commercial staff prepares all arbitration motions filed against Parker County Appraisal District.

## ***Appraisal Resources***

- **Personnel** - The staff consists of a Director of Appraisal, 2 commercial appraisers, and clerical support staff.
- **Data** - A common set of data characteristics for each commercial property in Parker County is collected in the field and data entered in CAMA software system. This property-specific data drives the three approaches to value. Additional required data 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 sale listings, fee appraisals, 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 and published market surveys are also reviewed to provide additional support for market trends.

## **PRELIMINARY ANALYSIS**

Prior to the beginning of the valuation activities for a re-appraisal year, the commercial division completes a thorough review of the results of the preceding year. Goals and objectives are determined and a plan of action is established. Budget, calendar issues and resource availability are all considered. Appraisal activities must be coordinated between PCAD divisions to avoid conflicts and ensure availability of personnel. Appraisal resources, including staff and system needs are evaluated. Appraisal Review Board activity and value changes in the informal appeals process are analyzed. Most importantly, a preliminary internal ratio study is produced to identify any property category or geographic areas that may require more research or analysis. During research analysis the appraisal staff identifies priority areas for sales data collection and any necessary enhancements to the standardized appraisal classification manual.

Parker County Appraisal District also coordinates its discovery and valuation activities with adjoining Appraisal Districts. Numerous field trips, interviews and data exchanges with adjacent appraisal districts are conducted to ensure compliance with state statutes. In addition, Parker County Appraisal District administration and personnel interact with other assessment officials through professional trade organizations including the International Association of Assessing Officers, Texas Association of Appraisal Districts and its subchapter Texas Metropolitan Association of Appraisal Districts and the Texas Association of Assessing Officers.

## **VALUATION APPROACH (Model Specification)**

### **Area Analysis**

Data on regional economic forces such as demographic patterns, regional locational factors, employment and income patterns, general trends in real property prices and rents, interest rates, discount rates, and financing trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources. More detailed

analysis is then completed to determine what model recalibration and specification will need to occur during the upcoming valuation cycle.

As part of a continuing education process, appraisers and managers regularly attend local and statewide seminars and workshops that cover these related topics. Appraisers are also required complete a series of appraisal related courses to achieve and maintain knowledge in the application of general and specific data throughout the valuation process.

### **Neighborhood (Submarket) Analysis**

A commercial neighborhood, submarket or economic area is comprised of the land and the commercial properties located within the boundaries of a specifically defined geographic location. A market area consists of a wide variety of both competing and complimentary property types including residential, commercial, industrial and governmental. Market area delineations can be based on man-made, political, or natural boundaries. Submarket analysis involves the examination of how physical, economic, governmental and social forces at the local, national and international level influence or affect property values. The effects of these forces are used to determine the highest and best use for a property, and to select the appropriate sale, income and cost data in the valuation process.

Improved and land market areas are defined for each of the various improved property types (apartment, office, retail, warehouse and special use) based upon a qualitative and quantitative analysis of similar economic or market forces. These include but are not limited to similarities of rental rates, quality of overall buildings or projects (known as building rank by area commercial market experts), date of construction, levels of market activity and competition, supply and demand, submarket stability, city ordinances, availability of infrastructure and other pertinent influences. Economic area identification and delineation by each major property use type is a key component in a mass-appraisal, commercial valuation system. All income and sales comparison valuation models are specific. Economic areas are periodically reviewed to determine if 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. It is that use that will generate the highest net return to the property over a period of time. For vacant tracts of land within a jurisdiction, the highest and best use is considered speculative but market-oriented and is based on the surrounding land uses in a competing land market area. The appraiser must consider the most probable use that is permitted under local administrative regulations and ordinances. While its current zoning regulation may restrict a property's use, the appraiser may also consider the probability that the zoning could be changed.

For improved properties, highest and best use is evaluated as currently improved and as if the site were still vacant. In many instances, the property's current use is the same as its highest and best use. However, the appraiser may determine that 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. 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 purpose, or interim uses. Proper highest and best use analysis ensures that the most accurate estimate of market value can be derived. Market value is also referred to as value in exchange.

Value in use represents the value of a property to a specific user for a specific purpose. An example of value in use is agricultural or productivity value. The Texas Property Tax Code has specific provisions for certain categories of property that require a value based on a specific use. This value is significantly different than market value, which approximates market price under the following assumptions: (i) no coercion of undue influence over the buyer or seller in an attempt to force the purchase or sale, (ii) well-informed buyers and sellers acting in their own best interests, (iii) a reasonable time for the transaction to take place, and (iv) payment in cash or its equivalent.

## **Economic Unit**

An economic unit consists of a property or grouping of properties recognized by the market as a single unit. An economic unit requires common ownership and physical contiguity with natural or geographic boundaries and may contain one or more PCAD accounts. In addition, the highest and best use is most probable, and would sell, as one property. A commercial appraiser determines an economic unit as part of the highest and best use analysis. Commercial appraisers make market value determinations at both the account or “parcel” level and the Economic Unit or “property” level.

## **Market Analysis**

A mass-appraisal market analysis relates directly to economic market forces affecting supply and demand that affect a group of similar or “like” properties. This study involves the relationships between social, economic, environmental, governmental, and site conditions. Appraisers consider such general market data as submarket supply and demand, zoning and code restrictions, municipal services, school district characteristics, crime rate patterns, job growth patterns, income levels, population trends, transportation issues, interest rate levels, investment patterns and a myriad of other factors that influence the local real estate market.

Specific market data is gathered and analyzed including sales of commercial properties, new construction and other permit activity, new leases, lease rates, absorption rates, vacancies, typical property expenses (inclusive of replacement reserves), expense ratio trends, and capitalization rate indicators.

## **DATA COLLECTION / VALIDATION**

### **Data Collection/Appraisal Manuals**

The Commercial Appraisal Classification Manual is the main resource used for data collection and documentation of physical property characteristics. The commercial manual is used to establish uniform procedures for the correct listing of real property by field appraisers. This manual is continually updated, providing a uniform system of listing the multitude of field data elements necessary to describe commercial real properties. All commercial properties located in PCAD’s jurisdiction are coded or described according to the manual and the three approaches to value are structured and calibrated based on this coding system. The field appraisers use the manuals during their initial training and as a guide in the field inspection of properties. Most of the data collection options are represented in the CAMA software system through a series of drop-down selection lists. Field data lists, codes and table rates are reviewed periodically for update as needed.

The commercial manual also provides the framework for the commercial cost model. The manual, along with replacement cost and depreciation tables are developed and maintained using Marshall and Swift Valuation Service, a nationally recognized cost estimator.

Actual construction cost data is also collected and analyzed. Property owners generally provide this data during the appeals process.

Standardized codes are developed and used to describe commercial property at both the parcel and the economic unit level. For example, one key characteristic of a property, at the parcel level, is building class. This is similar to the Marshall and Swift component called “occupancy class”. An economic unit, however, may be comprised of multiple building classes. An economic unit is coded using an income class description that reflects the predominant economic use for the entire property.

Commercial sales data is collected, verified and processed by the appraisal staff. A standardized procedure is followed to accurately process the documents. The sale data items are preliminarily reviewed and verified to determine reliability of the content and the source. Some preliminary sale information is then entered in the CAMA software system sales tracking system, using the Parker County deed filing’s instrument number as a key field. After entry into the tracking system, the staff then assembles and records detailed information about each sold property. The sale detail includes capturing a “picture” of each economic unit and parcel as of the date of the sale. Physical, geographic and financial data is documented and entered in the CAMA software system sale entry record. A final quality control review of the written and entered data occurs and the sales data is then released to the appraisers and to the public for the purpose of mass appraisal valuation. Sales can be viewed in the CAMA software system individually, in the data entry module, or as part of a model-driven sales summary grid in the sales comparison module.

Income and expense data consists of property rent rolls and income statements and is generally provided by property owners during the appeals process. The appraisal staff will image the data to the account, and also attach it to the account in the CAMA software system. The district also subscribes to several sale and research publications, such as LoopNet, Co-Star, that provides individual summarized income data within each specified submarket or improved market area. Pertinent income data includes rental rates, asking rental rates, vacancies, tenant reimbursements, operating expenses, capitalization rates, discount rates, lease up projections, and finish out costs.

The commercial manual, cost and depreciation tables and all other data used in the valuation process are also available upon request.

## **Sources of Data**

Closing statements, cost documents, rent rolls and income statements provided by owners during the appeals and ARB process are considered the most reliable sources of property data. Another reliable source of verified sales and income data is the local fee appraiser community. Networking with others in the appraisal profession benefits the overall quality and credible application of the data.

The Parker County Appraisal District records division receives a copy of the deeds recorded in Parker County from the Parker County Clerk’s Office. Annually, a query from the CAMA software system identifies all the deeds that have a commercial classification. A sales letter is mailed to the buyer and one to the seller, in an attempt to obtain the pertinent sale information. Parker County Appraisal District also subscribes to CoStar, a private vendor of commercial sale and property data, and to the Multiple Listing Service (MLS). Other sales sources are contacted such as the brokers involved in the sale, property managers, commercial real estate vendors, or other knowledgeable parties.

## **VALUATION ANALYSIS (Model Specification and Calibration)**

The commercial appraisal system, consists of mass appraisal applications of the cost approach to value. Also, the CAMA software system will prepare a sales approach (with adjustments), and the appraiser will establish a proforma income approach to value. The final value is a reconciliation of all three approaches to value.

Model calibration involves the process of periodically adjusting the mass appraisal formulas, tables, and schedules to reflect current local market conditions. Three valuation models are utilized in the mass appraisal process; cost, income and sales comparison models. The CAMA software system developed to create the valuation models has been specified according to appropriate mass appraisal procedures and techniques. On an annual basis, adjustments or calibrations can be made to reflect new construction procedures, materials and/or costs, new submarket delineation, current sale and rent data, and market capitalization rates, which can vary from year to year. The basic structure of the overall mass appraisal model can be valid over an extended period of time, with recalibration or 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 Models/Schedules**

The formula for a cost driven valuation model begins with an estimate of replacement cost new (RCN) for all improvements (buildings, fencing, paving etc.) on a parcel of land. Three forms of depreciation are considered and subtracted from the RCN to result in an estimate of value for the improved portion of the real estate. The sales comparison approach is typically the most reliable method to value the underlying land. An overall value is then computed by adding the depreciated value of the improvements to the value of the land.

The cost approach to value is applied to all improved real property utilizing the comparative unit or square foot method. This methodology involves the utilization of national cost data reporting services as well as consideration of actual cost information on comparable properties whenever possible. Cost and depreciation tables 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. 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, locational modifiers are necessary to adjust these base costs specifically for Parker County. The national cost service provides these modifiers.

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 15, 20, 30, 40, 50, 60 and 70 year expected life. To ensure they are reflective of current market conditions, the schedules are tested using sales of relatively new properties. The actual and effective ages of improvements are noted in the CAMA software system. 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.

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. Accuracy in the development of the cost schedules, condition ratings and depreciation schedules will usually minimize the necessity of this type of an adjustment factor.

## ***Income Models***

The income approach to value is applied to those real properties which are typically viewed by market participants as “income producing”, and for which the income methodology is considered a reliable 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 from an analysis of both actual rent data furnished by property owners and from market rent derived from comparable properties. This per unit rental rate multiplied by the number of units or net rentable area results in the estimate of potential gross rent. Actual income data is entered and stored in the CAMA software system.

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 from actual data 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 (1) equates to \$8.00 per square foot, any increase in expense over \$8.00 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.

Subtracting the allowable expenses 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.

Direct income capitalization analysis is considered for each commercial account in the CAMA software system. This methodology involves the capitalization of a stabilized 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. Market rent, actual occupancy rate, stabilized occupancy rate, absorption period, build out allowances (for first generation space or retrofit/second generation space as appropriate) and leasing expenses are all considered in the calculation. 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 or lease up 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.

Prior to the valuation process, appraisers analyze the actual income data for creating a series of income models. Each income models contain the necessary data to compute an indication of value using the income formula. This data includes gross potential rent rate per square foot, economic vacancy percent, other income per square foot, and an expense rate per square foot and as a percent. This data is then applied to the income model of properties that have the same market area, age range and size range, as specified for each specific category of improved property. The cap rate is the variable for each model, as the appraiser must consider the various market and property elements in selecting the appropriate rate for each subject property.

Once the appraiser completes the income valuation process the data is then imported to the pro forma portion of the CAMA software system. The appraiser reviews the data and indicated value and makes adjustments as necessary, to come up with a final indication of value.

### **Sales Comparison (Market) Approach**

The sales comparison approach estimates the market value of a subject property by adjusting the sales prices of comparable properties for differences between the comparables and the subject. 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 collected 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 internal ratio study analysis, which affords the appraiser an excellent means of judging the current accuracy 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, sale and income models are calibrated and finalized. The cost and depreciation calibration results are entered directly into the CAMA software system database tables for utilization on all commercial properties in the district. Cost data can be retrieved based on building class. Depreciation information is stored based on class, condition and effective age. The sale and income model definition criteria are also stored in CAMA software system. In May of each year, the cost schedules and models are summarized into a base rate/cost table guide and sale/income spreadsheet

defense book.

## **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 including, but not limited to, the weighted mean, standard deviation and coefficient of variation, provide 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 of 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 type 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 the 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-recoverable 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 last inspection, extent of that inspection, and commercial appraiser initials are listed in the CAMA software system. If a property owner disputes the district's records concerning this data in a protest hearing, the record may be corrected based on the credibility of the evidence provided. Typically, a new field check is then requested to verify this evidence for the current year's valuation or for the next year's valuation. In addition, if a building permit is filed for a particular property indicating a change in characteristics, that property is added to a permit work file. The commercial appraisal division reappraisal work plan allows for a physical inspection of most property every year.

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 appraisers to field review as many properties as possible or economic areas 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 in rapidly changing 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 and photograph sold and unsold properties for comparability and consistency of values.

## **Office Review**

A final value review is completed by the appraisal staff and involves a final reconciliation of the three approaches to value. Each of the three approaches to value is summarized. The appraiser determines if one of the three methods is most appropriate or may weight the results of all three approaches to formulate a final value for each commercial property. If the final value is based on the cost approach, the property card will display the cost detail and percent good for each improved component or taxable object. The land is valued separately, generally using the sales comparison approach. The total property value will result from the total of the depreciated replacement cost for those improvements plus the land value. If the final appraised value is selected based on the reconciliation of more than one approach, then the value is indicated on the summary and reconciliation screen with each percentage weight applied and calculated to produce a "reconciled value."

Previous values resulting from protest hearings are individually reviewed to determine if the value remains appropriate for the current year based on market conditions.

Once the appraiser is satisfied with the level and uniformity of value for each commercial property, the estimates of value are ready for value notification.

## **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. This can be particularly useful for commercial, warehouse or industrial real property for which sales are limited. 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 are multi-family housing projects subject to subsidized rent provisions or other governmental guarantees as provided by legislative statutes (affordable housing) or agricultural lands to be appraised on the basis of productivity or use value.

Parker County Appraisal District has adopted the policies of the IAAO STANDARD ON RATIO STUDIES, 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, and (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 this taxing jurisdiction. The primary uses of sale ratio studies include the determination of a need for

general reappraisal; prioritizing selected groups of properties types for reappraisal; identification of potential problems with appraisal procedures; assist in market analyses; and recalibration of appraisal 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 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 semi-annually (or more often in specific areas) to allow appraisers to review general market trends in their area of responsibility. The appraisers may utilize desktop applications such as MS ACCESS and EXCEL programs to evaluate subsets of data by economic area or a specific and unique data item. On the desktop, this may be customized and performed by building class and age basis. In many cases, field checks may be conducted to ensure 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 (appreciation or depreciation).

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# Business Personal Property Valuation Process

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## INTRODUCTION

### *Appraisal Responsibility*

The Business Personal Property Division (BPP) of the Parker County Appraisal District (PCAD) is responsible for developing fair and uniform market values for business personal property located within the district. There are 3 different account types appraised: (1) standard business personal property, (2) leased asset/special property at multiple locations, and (3) special inventory. In 2021, there were approximately 3,827 total commercial and industrial personal property accounts.

### **Appraisal Resources**

- **Personnel** – The staff consists of a Director of Business Personal Property, 1 BPP appraiser, and clerical support staff.
- **Data** – A common set of data characteristics for each account in the district is collected primarily in the field by the appraiser, and is entered into the CAMA software system. These assigned property characteristics direct the CAMA software system to a preliminary account value.

## VALUATION APPROACH (model specification)

### **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, legally permissible, financially feasible, and maximally productive. The highest and best use of business personal property is normally its current use.

## DATA COLLECTION/VALIDATION

### **Data Collection Procedures**

Business personal property data collection procedures are published and distributed to all appraisers involved in the appraisal and valuation process. The appraisal procedures are reviewed and revised to meet the changing requirements of field data collection. The most recent revision of the data collection procedures was for tax year 2021.

### **Sources of Data**

## **Standard Business Personal Property Account**

Annually BPP appraisers collect new data via on-site inspections. This project results in the discovery of new businesses not revealed through other sources. Various discovery publications such as the Eastern Parker County Chamber of Commerce Magazine, Parker County Today Magazine, Local Telephone Publications, newspapers, business owners, taxpayers, Texas DOT commercially registered vehicle listing, sales tax permits listings (DBA's), and local occupancy permits are also used for discovery purposes.

## ***Leased Asset/Special Property at Multiple Locations Account***

The primary source of discovery for these accounts is owner renditions submitted in either hard copy or electronic format. Field inspections are sometimes used to supplement this information.

## ***Special Inventory / VIT***

In coordination with the Parker County Tax Assessor/Collector, a copy of the monthly and annual declaration forms for boat, heavy equipment, manufactured housing, and motor vehicle dealers (as defined by Section 23 of the Texas Property Tax Code) are maintained at PCAD and used for discovery and valuation of special inventory accounts. Alternate discovery methods may sometimes be used as described in the Standard Business Personal Property Account section.

## **VALUATION AND STATISTICAL ANALYSIS (model calibration)**

### **Statistical Analysis**

Summary statistics such as the median, weighted mean, and standard deviation provide appraisers an analytical tool by which to determine both the level and uniformity of appraised value by business type.

### ***Depreciation Schedule and Trending Factors:***

PCAD'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 PCAD developed valuation models. The trending factors used by PCAD in the development of the depreciation schedule are based on published valuation guides, and the Comptroller's website. The percent good depreciation factors used by PCAD are also based on the Comptroller's website. The index factors and percent good depreciation factors were 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:

$$\text{MARKET VALUE ESTIMATE} = \text{PVF} \times \text{HISTORICAL COST}$$

A depreciation schedule was then adopted that reflects all of the preceding calculations. This mass appraisal PVF schedule is used to ensure that estimated values are uniform and consistent within the market.

## **Standard Business Personal Property Account**

Appraisal District websites are reviewed for similar business personal property, and/or existing accounts for which no property owner's rendition has been filed. Comparable business renditions are also used to establish tolerance parameters for testing the valuation of property for which prior years data exist or for which current year rendered information is available. The calculated current year value or the prior year's value is compared to the indicated model value by the valuation program. If the value being tested is within an established acceptable percentage tolerance range of the model value, the account passes that range check and moves to the next valuation step. If the account fails the tolerance range check, it is flagged for individual review. Allowable tolerance ranges may be adjusted from year to year depending on the analysis of the results of the prior year.

### ***Leased Asset/Special Property at Multiple Locations Account***

Leased and multi-location assets are valued using the PVF schedules mentioned above. If the asset to be valued in this category is a vehicle, then NADA published book values are used. Assets, including vehicles, that are not valued directly from a third-party source, are valued by an appraiser using PVF schedules or published guides.

### ***Special Inventory / VIT***

Valuation is based upon the annual declaration filed by the property owner indicating the previous year's Texas sales (used as the numerator) and divided by a factor of 12 (the denominator). This establishes a monthly basis consistent with the owner's tax payment requirements. In the absence of an annual declaration, like businesses that have filed declarations are identified and adjusted to the subject property to establish an estimated market value.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### ***Office Review***

#### **Standard Business Personal Property Account**

A BPP valuation program exists in the CAMA software system that identifies accounts in need of review based on a variety of conditions. Property owner renditions, accounts with field or other data changes, accounts with prior hearings, new accounts, and NAICS cost table changes are all considered. The accounts are processed by the valuation program and pass or fail preset tolerance parameters by comparing appraised values to prior year and model values. An appraiser reviews accounts that fail the tolerance parameters.

#### ***Leased Asset/Special Property at Multiple Locations Account***

Leased Asset/Special Property accounts that have a high volume of vehicles or other assets are loaded programmatically if reported by the property owner electronically. Electronic renditions either emailed or on diskette, often require reformatting before they can be loaded to the account. Accounts that render by hard copy are data entered by the BPP staff. After matching and data entry, reports are generated and reviewed by an appraiser. Once proofed, necessary corrections are made, approval is granted, and the account is sent a value notice.

### ***Special Inventory***

PCAD's perpetual account tracking system ensures dealers without a current declaration on file are contacted to advise them of their legal filing requirements and to provide PCAD with the most current valuation/review data available.

## **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 using state cost and depreciation schedules to develop comparative personal property values. These values are then compared to PCAD's personal property values and ratios are formed.

### **Internal Testing**

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



	<b>EMPLOYEE</b>	<b>POSITION</b>
<b>ADMINISTRATION</b>	RICK ARMSTRONG TAMMIE MORGAN CHRIS JOHNSON CINDY GETCHELL TROY HANSON	CHIEF APPRAISER DIRECTOR OF ADMINISTRATION DIRECTOR OF APPRAISAL DIRECTOR OF INFORMATION SERVICES DIRECTOR OF OPERATIONS
<b>BUSINESS PERSONAL PROPERTY &amp; MINERAL APPRAISAL</b>	JUSTIN SHIFFLET MISHAY CASH	DIRECTOR APPRAISER
<b>COMMERCIAL APPRAISAL</b>	BRIAN VASQUEZ JERAD GABBERT	APPRAISER APPRAISER
<b>RESIDENTIAL APPRAISAL</b>	GARY BONNER JOHN NOLAND JASON MARTIN MATT GIBSON BEN DALE STEPHEN JONES BRUCE LANGLOIS ROY MCLEERY AMON POOL MATT GRIMES LEE SADLER	APPRAISER APPRAISER APPRAISER APPRAISER APPRAISER APPRAISER APPRAISER APPRAISER APPRAISER APPRAISER APPRAISER
<b>CLERICAL SUPPORT STAFF</b>	TANYA BARRETT ANGELA BELCHER NICHOLE ROSE KELLI SHOEMAKER BRADIE GABBERT AMBER HOGAN	ARB COORDINATOR SUPPORT STAFF SUPPORT STAFF SUPPORT STAFF SUPPORT STAFF SUPPORT STAFF
<b>GIS &amp; MAPPING</b>	JEREMY STEWART GARRETT LOVE	MAPPING ASSITANT MAPPING ASSITANT