NUECES COUNTY APPRAISAL DISTRICT

Mass Appraisal Report 2022

INTRODUCTION

Scope of Responsibility

The Nueces County Appraisal District has prepared and published this 2022 Mass Appraisal Report pursuant to the Uniform Standards of Appraisal Practice (USPAP) reporting requirement (USPAP Standard 6 and 8).This report has several parts: a general introduction and then several sections describing the appraisal activities of the appraisal district.

The Nueces County Appraisal District (NCAD) is a political subdivision of the State of Texas created effective January 1, 1980. The Texas Property Tax Code governs the legal, statutory, and administrative requirement of the appraisal district. A board of directors, appointed by the taxing units that participate in CAD, constitutes the district's governing body. The chief appraiser, appointed by the board of directors, acts as the chief executive officer of the appraisal district.

The appraisal district is responsible for local property tax appraisal and exemption administration for 38 jurisdictions, or taxing units, in the county. Each taxing unit, such as a county, city, school district, municipal utility district, etc., sets its own tax rate to generate revenue to pay for police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services. Appraisals established by the appraisal district allocate the year's property tax burden on the basis of each taxable property's January 1st market value. We also determine eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, and charitable and religious organizations.

The Texas Property Tax Code (TPTC) 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 all real property every three years. Personal Property is appraised every year.

Appraised values are estimated using specific information about each property, computer assisted appraisal programs, and recognized appraisal methods and techniques. Market, income, and cost data are collected and analyzed in order to produce credible valuation results. The district follows the appraisal and assessment standards of the International Association of Assessing Officers (IAAO), and the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Foundation in performing appraisals. In cases where the appraisal district contracts for professional valuation services, the contract that is entered into by each appraisal firm requires adherence to the same professional standards.

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

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

The Property Tax Code defines special appraisal provisions for the valuation of residential homestead property (Sec. 23.23), productivity, also commonly referred to as AG value, (Sec. 23.41), real property inventory (Sec. 23.12), dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), nominal (Sec. 23.1 &) or restricted use properties (Sec. 23.83) and allocation of interstate property (Sec. 23.03).

The owner of an inventory may elect to have the inventory appraised at its market value as of September 1st of the year proceeding the tax year to which the appraisal applies by filing a timely application with the chief appraiser requesting that the inventory be appraised as of September 1st in accordance with Texas Property Tax Code Section 23.12(f).

Personnel Resources

The office of the Chief Appraiser is primary responsible for overall planning, organizing, staffing, coordinating, and controlling of district operations. The Administration Department's function is to plan, organize, direct and control the business support functions related to human resources, budget, finance, records management, purchasing, fixed assets, facilities and postal services.

The appraisal department is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, mineral, utilities, industrial, land and agricultural use properties. The district's 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.

Administrative support functions including records maintenance, information and assistance to property owners, and Appraisal Review Board hearings and other activities as needed.

The appraisal district staff consists of approximately 83 FTE employees:

- Chief Appraiser
- Assistant Chief Appraiser
- Manager of Administration
- Six Department Managers
    - Commercial/Land
    - Residential Real Estate
    - Business Personal Property
    - Taxpayer Services
    - Information Systems
    - Market Analysis
- Five Coordinators
    - Commercial/Land
    - Residential Real Estate
    - Business Personal Property
    - ARB
    - Residential Real Estate Legal
- One Taxpayer Supervisor/Appraiser
- Fourteen Residential Appraisers
- Six Commercial Appraisers
- Four AG/Land Appraisers
- Nine Business Personal Property Appraisers
- Twenty-nine Clerical & Administrative Support Staff
- Three Market Analysts Appraisers
- One Residential Land/Market Analyst Appraiser
- One IT Assistants
- One GIS Techs

Date

The district is responsible for establishing and maintaining approximately 216,000 real and personal property accounts in Nueces County.

The data collected includes property characteristics, ownership and exemption information. Property characteristic data on new construction is updated through an annual field check; existing property data is maintained through a field check that is prioritized by last field inspection date. All of our commercial, land and residential sales are field checked, and an annual criterion is used to determine which of the outliers for residential properties are field checked.

General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires, buyers, hearings, brokers, leasing agents, property manager and surveys found in industry publications.

Information Systems

The Information Systems Department maintains the district's data processing facility, networked computer systems, network infrastructure, software applications, document imaging systems, geographical information systems (GIS) and Internet website. The district's appraisal software provider is Harris Govern which provides the District's Computer Assisted Mass Appraisal (CAMA) software system, a/k/a the PACS system, which uses a Microsoft SQL relational database as its data storage backend. The district's servers, workstations, and software are Microsoft Windows based. The district's geographical information system (GIS) maintains cadastral maps and various layers of data, including parcel ownership, parcel size, zip code information, and digital aerial imagery. The district's website is third party-hosted and makes a broad range of information available for public access.

A fully staffed Taxpayer Services Department is trained to assist the public in accessing the district's information. Downloadable files of tax information and district forms, including exemption applications and business personal property renditions are also available on the NCAD website, at ***www.ncadistrict.com***.

According to Chapter 5 of the TPTC and Section 403.302 of the Texas Government code, the State Comptroller's Property Tax Division (PTD) conducts a biennial property value study (PVS) of each Texas school district and each appraisal district. As a part of this study, the code also requires the Comptroller to use sales and recognized auditing and sampling methods, test the validity of school district taxable values in each appraisal district and presume the appraisal roll values are correct when values are found to be 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 appraisal 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 with 25% of the median, and price-related differential (PRD) for properties overall and by state category (i.e., categories A, B, C, D and F are directly applicable to real property).

There are 13 independent school districts in NCAD for which appraisal rolls are annually developed. The preliminary results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of appraisement. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

Appraisal Responsibilities

The field appraisal staff is responsible for collecting and maintaining property characteristic data for classification, valuation, and other purposes. Accurate valuation of real and personal property by any method requires a physical description of personal property, and land and building characteristics. The district is responsible for administering, planning, and coordinating all activities involving data collection and maintenance of all commercial, residential and personal property types which are located within the boundaries of Nueces County. The data collection effort involves the inspection of real and personal property, as well as data entry of all data collected into the existing information system.

Appraisal Resources

- **Personnel** - The appraisal activities consist of 51 appraisers, 29 clerical personnel and 6 administration staff.
- **Data** - The data used by field appraisers includes the existing property characteristic information contained in CAMA (Computer Mass Appraisal System) from the district's computer system. The data is printed on a property record card (appraisal card) or personal property data sheets (route sheets). Other data used includes maps, sales data, fire and damage reports, building permits, photos and actual cost information.

Staff Education and Training

All personnel that are performing appraisal work are subject to the provisions of the Texas Occupations Code, Section 1151 – the Property Taxation Professional Certification Act, and must be registered with the Texas Department of Licensing & Regulation. This agency is responsible for ensuring appraisers are professional, knowledgeable, competent, and ethical. This is accomplished through a statewide program of registration, education, experience, testing and certification for all property tax professionals for the purpose of promoting an equitable tax system.

Appraisers registered with the Texas Department of Licensing & Regulation must successfully complete 161.75 hours of appraisal courses as prescribed by TDLR administrative rule 94.21 and pass two additional comprehensive examinations within 60 months of registration to achieve certification as a Registered Professional Appraiser (RPA). During each subsequent 24-month period after certification, appraisers must complete 30 hours of continuing education that must include 2 hours of professional ethics, 2 hours of state laws & rules course, and 3.5 hours of USPAP refresher. Failure to meet these minimum standards will result in the removal of employee from an appraiser position.

Additionally, all appraisal personnel receive extensive training in data gathering processes used in fieldwork of all types of property to ensure equality and uniformity of appraisal of all types of property. On-the-job training is provided by managers and senior staff for new appraisers. In addition, managers meet with appraisal staff regularly to introduce new procedures and monitor appraisal activity to ensure that standardized appraisal procedures are followed.

PRELIMINARY ANALYSIS

Data Collection / Validation

Data collection of real property involves maintaining data characteristics of the property on CAMA (Computer Assisted Mass Appraisal). The information contained in CAMA includes site characteristics, such as land size and topography, and improvement data, such as square foot of living area, year built, quality of construction, and condition. Residential and commercial appraisers use a host of property classification guides, manuals, and schedules that assist in establishing uniform procedures for the appraisal of all real property. All properties are coded according to these manuals and the approaches to value are structured and calibrated based on this coding system. The field appraisers use these manuals during their initial training and as a guide in the field inspection of properties.

Data collection for personal property involves gathering and maintaining information on business personal property, such as business inventory, furniture and fixtures, vehicles, machinery and equipment, cost and location. The field appraisers conducting on-site inspections use a personal property manual during their initial training and as a guide to correctly list all business personal property.

The sources of data collection are through the new construction field effort, data review/relist field effort, data mailers, hearings, sales validation field effort, commercial sales verification, newspapers and publications, and property owner correspondence. A principal source of data comes from building permits received from taxing jurisdictions that require property owners to take out a building permit. When received, permits are matched with the property's record number for distribution to appraisers.

Data review of entire neighborhoods is generally a good source for data collection. Appraisers periodically inspect neighborhoods pursuant to the district's reappraisal plan, to review the accuracy of our data and identify properties that must be relisted. The sales validation effort in real property calls for the collection of data of properties that have sold through telephone and/or email communication with buyers, sellers, local real estate brokers and other sources that have reliable information or direct knowledge of the particulars of a sale. The sales validation effort may involve on-site inspection by field appraisers to verify the accuracy of the property characteristics data, if collected sales information differs from the district's record, in the process of confirming a purchase price.

Property owners are one of the best sources for obtaining sale confirmation data and identifying incorrect data which may result in a field check. Frequently, the property owner provides sufficient data to allow correction of records without having to send an appraiser on-site. Properties that need inspection are added to a work file and inspected at our earliest opportunity.

Data Collection Procedures

Field data collection requires organization, planning and supervision of the field effort. Data collection procedures have been established for residential, commercial, and personal property. The appraisers are assigned throughout NCAD's jurisdictions to conduct field inspections. Appraisers inspect and record information either on an appraisal card (real property) or a route sheet (personal property).

The quality of the data used is extremely important in establishing accurate values of 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 set forth in the procedures manual as "rules" to follow. All appraisers are routinely re-trained in data collection procedures prior to major field projects such as new construction, sales validation, or data review. A quality assurance process exists through supervisory review of the work being performed by the field appraisers. Supervising staff is charged with the responsibility of ensuring that appraisers follow data collection procedures, identifying training issues and providing uniform training for all field appraisals staff. Field cards are sent to the Departmental Clerks who enter information into the computer file. This responsibility includes not only data entry, but also quality assurance.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

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

Office Review

Office reviews are completed on properties where information has been received from the owner of the property. Data mailers, sent in masse, or telephone surveys, frequently verify information about groups of properties, including characteristics or current condition of the property. When the property data is verified in this manner, field inspections are not required.

PERFORMANCE TEST

Appraisers are responsible for conducting ratio studies and comparative analysis. (Refer to the individual valuation process summary reports).

In many cases, appraisers may conduct field inspections to ensure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics.

RESIDENTIAL VALUATION PROCESS

Scope of Responsibility

The residential appraisers are responsible for estimating equal and uniform market values for residential improved property. There are approximately 128,000 residential single family and small multiple family, residential vacant lots, mobile homes and townhomes and condominiums parcels in Nueces County.

Appraisal Resources

- **Personnel**
    - Manager of Residential Real Estate - Leticia R. Roberts, RPA
    - Coordinator of Residential Real Estate – Jared Garcia, RPA
    - Coordinator of Residential Real Estate Legal – Debra D. Morin, RPA, RTA
    - The Residential Department consists of a total of 14 appraisers responsible for determining residential values:
        - Henry Hines, RPA
        - Gary W. Robinson, RPA
        - Juan Carlos Garza, RPA
        - John L. Lugo Jr., RPA
        - Jorge Valdez, RPA
        - Maria Cuellar
        - Matthew Delgado
        - Robert Gutierrez
        - Zuraya Leos
        - Yasmin Sanchez
        - Mathew Martinez
        - Lesley Mayfield
    - Manager of Market Analysis - Chris B. Burnette, RPA
    - The Market Analysis Department consists of a total of 5 appraisers responsible for determining residential values:
        - Ryan Suayan, RPA
        - Alma Riojas, RPA
        - Contina A. Perez, RPA
        - Rebecca Morgan
- **Data** - An individualized set of data characteristics for each residential dwelling and multiple family units in this district are collected in the field and data entered in the computer system. The property characteristic data drives the application of computer-assisted mass appraisal (PACS) under the Cost, Market, and Income Approaches to property valuation. In addition to the actual data obtained from specific properties, market data publications are also reviewed to provide additional support for market trends.

Education and Training

All appraisers and their manager are subject to the provisions of the Property Taxation Professional Certification Act and are registered with the Texas Department of Licensing & Regulation. Eleven appraisers are working towards the required hours of appraisal courses to achieve certification as a Registered Professional Appraiser (RPA). Nine appraisers are currently in a 24-month period after certification and are working on 30 hours of continuing education that include 2 hours of professional ethics, 2 hours of state laws & rules course, and 3.5 hours of USPAP refresher. Failure to meet these minimum standards will result in the removal of employee from an appraiser position. Eight appraisers are working toward the level 3 certification and four appraisers are working toward the RPA.

Additionally, all appraisal personnel receive extensive training in data gathering processes used in fieldwork and statistical analyses of all types of property to ensure equality and uniformity of appraisal of all types of property. On-the-job training is provided by managers and senior staff for new appraisers. In addition, managers meet with appraisal staff regularly to introduce new procedures and monitor appraisal activity to ensure that standardized appraisal procedures are followed.

VALUATION APPROACH (Model Specification)

Area Analysis

Data on regional economic forces such as demographic patterns, regional factors, employment and income patterns, general trends in real property prices and rents, interest rates trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources and provide the field appraiser a current economic outlook on the real estate market. Information is gleaned from real estate publications and sources such as continuing education in the form of IAAO and TDLR classes.

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 areas known as neighborhoods. Residential valuation and neighborhood analysis is conducted on each of the political entities known as Independent School Districts (ISD).

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 the largest geographic grouping of properties where the property's physical, economic, governmental, and social forces are generally similar and uniform. Geographic stratification accommodates the local supply and demand factors that vary across a jurisdiction. Once a neighborhood has been identified, the next step is to define its boundaries. This process is known as "delineation." Some factors used in neighborhood delineation include location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, square footage of living area, and story height. Delineation can involve the physical drawing of neighborhood boundary lines on a map, but it can also involve statistical separation or stratification based on attribute analysis. Part of neighborhood analysis is the consideration of discernible patterns of growth that influence a neighborhood's individual market. Few neighborhoods are fixed in character. Each neighborhood may be characterized as being in a stage of growth, stability, or decline. The growth period is a time of development and construction. 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 grouping is highly beneficial in cost-derived areas of limited or no sales or use in direct sales comparison analysis. Neighborhood groups, or clustered neighborhoods, increase the available market data by linking comparable properties outside a given neighborhood. Sales ratio analysis, discussed below, is performed on a neighborhood basis, and in soft sale areas on a neighborhood group basis. 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.

Highest and Best Use Analysis

The highest and best use must be physically possible, legally permitted, 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 decides 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 economically obsolescent, 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 (Model Calibration)

Unit Price Schedules

All residential parcels in the district are valued from unit price schedules using a comparative unit method. The district's residential unit price schedules, originally adopted from a private mass appraisal firm, have been customized to fit Nueces County's local residential building and labor market. The unit price schedules are reviewed periodically and adjusted to reflect the basic relationships between various qualities of improvements.

An extensive review and revision of the residential unit price schedules was performed for the 2017 tax year. As part of this process, every arms-length transaction of a residential property in Nueces County was reviewed. Properties were stratified by quality class and size. Tables were then developed to reflect square footage market values. Each quality class was subjected to a ratio study to test overall level of appraisal and accuracy within each class. Additionally, CAD dwelling costs were compared against Marshall & Swift, a nationally recognized cost estimator. This process included correlation of quality of construction factors from CAD and Marshall & Swift to further ensure level of appraisal and accuracy to address the situations that occur during the life of an improvement, levels of depreciation established by Marshall & Swift have been researched and used. These schedules are slated to be reviewed and possibly revised in the 2023 Appraisal Cycle.

Market Analysis

The Market Analysis Team assists in data gathering. General demographic, economic and financial trends, construction costs, market sales and income data are acquired through various sources. These may include internally generated questionnaires, public and university research centers, private market data vendors, real estate related publications and telephone contact with buyers, sellers, brokers, and fee appraisers, as well as information collected from property owners and agents during the informal appeal and Appraisal Review Board process. The Analyst department has staff assigned to research functions and they are responsible for collecting this type of data. School district or neighborhood sales reports are generated as an analysis tool for the appraiser in the development of value estimates.

Statistical Analysis

Statistical analyses are performed annually to evaluate whether values are equitable and consistent with the market. Ratio studies are conducted on each of the approximately 715 residential 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 within an ISD and summarized by year. These summary statistics including, but not limited to, the weighted mean, median 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 median for individual properties within a neighborhood. Review of the standard deviation, coefficient of variation, and coefficient of dispersion discerns appraisal uniformity within and between stratified neighborhoods.

The appraisers, through the sales ratio analysis process, review every neighborhood annually. 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 used to ensure that estimated values are consistent with market. The district's primary approach to the valuation of residential properties uses a hybrid cost/sales comparison approach this type of approach accounts for neighborhood market influences not specified in the cost model.

The following equation denotes the hybrid model used:

$$\mathbf{MV=MA\ [(RCN - D) +LV}$$

Whereas the market value equals the market adjustment factor times the replacement cost new less depreciation plus the land value. As the cost approach separately estimates both land and building values and uses depreciated replacement costs, which reflect only the supply side of the market, it is expected that adjustments to the cost values are needed to bring the level of appraisal to an acceptable standard. Market multipliers, or neighborhood factors, are applied uniformly within neighborhoods to account for locational variances between market areas or across a jurisdiction.

If a neighborhood is to be updated, the appraiser uses a cost ratio study that compares recent sales prices of properties appropriately adjusted for the effects of time within a delineated neighborhood with the properties' estimated cost value. The calculated ratio derived from the sum of the sold properties' cost value divided by the sum of the sales prices indicates the neighborhood level of value based on the unadjusted cost value for the sold properties. This cost to sale ratio is compared to the appraisal-to-sale ratio to determine the market adjustment factor for each neighborhood.

This market adjustment factor is needed to trend the values obtained through the cost approach closer to the actual market evidenced by recent sales prices within a given neighborhood. The sales used to determine the market adjustment factor will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor calculated for each update neighborhood is applied uniformly to all properties within a neighborhood. Once the market-trend factors are applied, a second set of ratio studies is generated that compares recent sale prices with the proposed appraised values for these sold properties. From this set of ratio studies, the appraiser judges the appraisal level and uniformity in both update and non-update neighborhoods, and finally, for the school district. This process is repeated several times if possible, during the valuation phase in an attempt to obtain and use the most sales data available for each defined neighborhood.

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 "capped." The value for tax purposes (appraised value) of a qualified residence homestead will be the LESSER of:

- the market value; or
- the preceding year's appraised value
  PLUS 10 percent for each year since the property was re-appraised;
  PLUS the value of any improvements added since the last re-appraisal

Values of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1st of the following year. In 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.

When residences have not been occupied, and are not being rented out, and the owner applies for inventory valuation, they are appraised as part of an inventory using the district's land value and the developer's construction costs as of the valuation date. Once they are sold or occupied, they no longer qualify for inventory valuation.

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 on a routine basis 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. After preliminary estimates of value have been determined in targeted areas, the appraiser takes valuation documents to the field to test the computer-assisted values against his or her own appraisal judgment. During this review, the appraiser can 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 and vacant 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.

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 meet the standards of accuracy in severa1 ways. The neighborhood factors are reviewed for each neighborhood for the current tax year. In addition to the system's sales ratios by school district and neighborhood, quarterly sales ratios are generated from a PC-based statistical application in Microsoft Excel. Reported in the sales ratio statistics for each school district is a level of appraisal value and uniformity profile by land use, sales trends by 12-month time frame, and appraisal value ranges. The PC-based ratio studies are designed to emulate the findings of the state comptroller's annual property value study for category A property. A copy of the district's latest ratio study is attached.

Management Review Process

When 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 management 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.

COMMERCIAL VALUATION PROCESS

INTRODUCTION

Scope of Responsibility

This mass appraisal assignment includes all of the commercially classed real property. The Commercial Valuation appraisers are responsible for developing equal and uniform market values for commercial improved property, as well as vacant land. There are approximately 24,000 parcels of these types in Nueces County. Commercial appraisers appraise the fee simple interest of properties according to statute. However, the effect of easements, restrictions, encumbrances, leases, contracts, or special assessments are considered on an individual basis, as is the appraisement 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 systematically based on their prorated interests. Field inspections are geographically assigned to appraisers. Appraisers also inspect county wide for their assigned categories. The improved real property analysis responsibilities are categorized according to major property types of multi-family or apartment, office, retail, industrial and special use (i.e., hotels, hospitals, and nursing homes).

Appraisal Resources

- **Personnel**
  - Manager of Commercial/Land – Guillermo "Willie" Carrington, RPA, CTA
  - Coordinator of Commercial/Land- Michael Kirkham, RPA
  - The Commercial/Land Department consists of a total of 12 appraisers responsible for determining Commercial and Land values:
    - Amaro G.Mike Landin, RPA
    - Mike Kidd, RPA
    - Dianne Myers, RPA
    - Frances Revilla, RPA
    - Joey Siva, RPA
    - Britt A. Kruger, RPA
    - Heath Gonzalez
    - Betty Trevino
    - Maria Navarro
    - Michael Trigo

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

Education and Training

All appraisers and their manager are subject to the provisions of the Property Taxation Professional Certification Act and are registered with the Texas Department of Licensing & Regulation. Three appraisers are working towards the required hours of appraisal courses to achieve certification as a Registered Professional Appraiser (RPA). Seven appraisers are currently in a 24-month period after certification and are working on 30 hours of continuing education that include 2 hours of professional ethics, 2 hours of state laws & rules course, and 3.5 hours of USPAP refresher. Failure to meet these minimum standards will result in the removal of employee from an appraiser position.

Additionally, all appraisal personnel receive extensive training in data gathering processes used in fieldwork and statistical analyses of all types of property to ensure equality and uniformity of appraisal of all types of property. On-the-job training is provided by managers and senior staff for new appraisers. In addition, managers meet with appraisal staff regularly to introduce new procedures and monitor appraisal activity to ensure that standardized appraisal procedures are followed.

Special Valuation – Agricultural

Properties may be appraised for AG use special valuation if they qualify. They must meet use, history and intensity standards.

- The property must be used for agricultural production
- The property must meet the history requirements of use in three years preceding the current year (three of three within a city limits) and
- The property must be used at the intensity level that is typical in the area.

Properties that qualify for agricultural use are classified by the type of agricultural production and the soil type. The district uses three different types of agricultural production: Native Pasture, Improved Pasture, and Dry Crop (Cropland). The Native Pasture designation is for properties covered with native or natural grasses that are grazed by livestock. Improved Pasture is also grazing land, but the land has been improved by the planting of non-native grasses to increase grazing production. Cropland is any land that produces a harvested crop on an annual basis.

Within each type of agricultural production are sub classifications based on soil types. The sub classifications used by the district for Native Pasture are Native Pasture 1 and Native Pasture 2.

Valuation

On a yearly basis, the district collects data from several sources to establish the average net income from agriculture use. Sources include Texas A&M, its Extension Service, the USDA, and the AG Advisory Board. The district also sends questionnaires to 200 randomly selected farmers and ranchers that own at least 20 acres. The questionnaires are sorted when received by location and type of production. The data from the questionnaires in conjunction with the data from the other sources is compiled to establish the net income of each classification of agricultural production. The average net income of the preceding five years is used and is capitalized using the capitalization rate established by law to produce the AG value for each of the sub classifications of property. These values are applied in mass to all qualified land by classification.

Pilot Study

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

Survey of Similar Jurisdictions: NCAD coordinates its discovery and valuation activities with adjoining Appraisal Districts. Numerous interviews and data exchanges with adjacent appraisal districts have been conducted to ensure compliance with state statutes. In addition, NCAD administration and personnel interact with other assessment officials through professional trade organizations including the International Association of Assessing Officers (IAAO), Texas Association of Appraisal Districts (TAAD) and the Texas Association of Assessing Officers (TAAO).

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 rate trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources. Continuing education is received through IAAO, TAAO, TAAD and the Texas Department of Licensing and Regulation (TDLR), as well as seminars through other appraisal-related entities such as The Appraisal Institute.

Market Area Analysis

The market area is comprised of the land area and commercially classed properties located within the boundaries of this taxing jurisdiction. This area consists of a wide variety of property types including residential, commercial and industrial. Analysis involves the examination of how physical, economic, governmental and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and organize comparable properties into smaller, manageable subsets of the universe of properties known as areas.

Economic areas are defined by each of the improved property use types (apartment, office, retail, industrial and special use) based upon an analysis of similar economic or market forces. These include but are not limited to similarities of rental rates, classification of projects (known as building class by area commercial market experts), date of construction, overall market activity or other pertinent influences. Economic area identification and delineation by each major property use type is the benchmark of the commercial valuation system. All income model valuation (income approach to value estimates) is economic area specific. Economic areas are periodically reviewed to determine if re-delineation is required. The geographic boundaries as well as income, occupancy, expense levels and capitalization rates within each economic area for all commercial use types may be found in the Commercial Field manual, as well as the classifications and descriptions of each commercial use type and income model.

Highest and Best Use Analysis

The highest and best use is the most reasonable and probable use that generates the highest present value of the real estate as of the date of valuation. The highest and best use of any given property must be physically possible, legally permissible, financially feasible, and maximally productive. For improved properties, highest and best use is evaluated as improved and as if the site were still vacant. This assists in determining if the existing improvements have a transitional use, interim use, nonconforming use, multiple uses, speculative use, excess land, or a different optimum use if the site were vacant. For vacant tracts of land within this jurisdiction, the highest and best use is considered speculative based on the zoning and the surrounding land uses. Improved properties reflect a wide variety of highest and best uses, which include, but are not limited to office, retail, apartment, special purpose, or interim uses. In many instances, the property's current use is the same as its highest and best use. This analysis ensures that an accurate estimate of market value (sometimes referred to as value in exchange) is derived.

On the other hand, value in use represents the value of a property to a specific user for a specific purpose. This is significantly different than market value, which approximates market price under the following assumptions: (i) no coercion of undue influence over the buyer or seller 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.

Market Analysis

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

DATA COLLECTION/VALIDATION

Data Collection Manuals

The primary manual pertinent to data collection and documentation is the Commercial Field Procedures Manual. This manual is continually updated, providing a uniform system of itemizing the numerous components of improved properties. All properties located in NCAD's commercial inventory are coded according to this manual and the approaches to value are structured and calibrated based on this coding system. The most recent revision of the manual was for 2017.

Prior to the hearing season and after the sales have been researched, verified, keyed into the database, and quality control has been completed, the sales data are summarized and produced into book/CD form. These books/CDs are available to the public for use during hearings and are also used by the NCAD appraisers during the hearings process.

Sources of Data

In terms of commercial sales data, NCAD receives copies of the deeds recorded in Nueces County that convey commercially classed properties. The deeds involving a change in commercial ownership are entered into the sales information system and researched to obtain the pertinent sale information. Other sources of sale data include the hearings process, real estate professionals, and local, regional, and national real estate and financial publications.

For those properties involved in a transfer of commercial ownership, a list is compiled, and non-sale deed types are removed from the list to begin the research and verification process. The initial step in sales verification involves a computer-generated questionnaire, which is mailed to the purchaser (grantee) in the transaction. If a questionnaire is answered and returned, the documented responses are recorded into the computerized sales database systems. For questionnaires with no response, other sources are contacted such as the brokers involved in the sale, property managers or commercial vendors. In other instances, sales verification is obtained from local appraisers or others that may have the desired information. Finally, settlement statements are often provided during the hearings process. The actual settlement statement is the most reliable and preferred method of sales verification.

VALUATION ANALYSIS (Model Calibration)

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

Cost Schedules

The cost approach to value is applied to all improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are developed based on the Marshall Swift Valuation Service, a nationally recognized service. Cost models include the derivation of replacement cost new (RCN) of all improvements. These include calculator base rates, per unit adjustments and lump sum adjustments. This approach also employs the sales comparison approach in the valuation of the underlying land value. Time and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period. 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 the area. The national cost service provides these modifiers. If available, neighborhood factors are developed by appraisers to reflect conditions in specific markets of NCAD.

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 25, 30, 35, 40, 45, 50, 55 and 60 year expected life. These schedules are then tested to ensure they are reflective of current market conditions. The actual and effective ages of improvements are noted in the CAMA. Effective age estimates are based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and its competitive position in the marketplace.

Market adjustment factors such as external and/or functional obsolescence can be applied if warranted. A depreciation calculation override can be used if the condition or effective age of a property varies from the norm by appropriately noting the physical condition and functional utility ratings in 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 leading value indicator. The first step in the income approach pertains to the estimation of market rent on a per unit basis. This is derived primarily from actual rent data furnished by property owners and from local market study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

A vacancy and collection loss allowance is the next item to consider in the income approach. The projected vacancy and collection loss allowance is established 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.

Income Models

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. Different expenses are developed for different types of commercial property based on use.

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

Allowable expenses (inclusive of non-recoverable expenses and replacement reserves) are subtracted from the effective gross income to yield 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. These procedures are documented in the Commercial Procedures Manual.

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

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

COMMERCIAL VALUATION PROCESS

Sales Comparison (Market) Approach

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

Final Valuation Schedules

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

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 the 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 annually through the sales ratio analysis process. The first phase involves ratio studies that compare the recent sales prices of properties to the appraised values of 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 and the NCAD appraiser responsible are listed in the CAMA system. If a property owner disputes the district's records concerning this data in a protest hearing, the CAMA may be altered based on the credibility of the evidence provided. If appropriate, 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 work file.

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 (known as cost modifiers), condition, and physical, functional, and economic obsolescence factors contributing significantly to the market value of the property. In some cases, field reviews are warranted when sharp changes in occupancy or rental rate levels occur between building classes or between economic areas. With preliminary estimates of value in these targeted areas, the appraisers test computer assisted values against their own appraisal judgment. While in the field, the appraisers physically inspect sold and unsold properties for comparability and consistency of values.

Office Review

Office reviews are completed on properties not subject to field inspections and are performed in compliance with the guidelines contained in the Commercial Procedures Manual. The Commercial Field Procedures Manual outlines the application of the three approaches to value.

Office reviews are typically limited by the data presented in final value reports. These reports summarize the pertinent data of each property as well as comparing the previous year's values to the proposed value conclusions of the various approaches to value. These reports show proposed percentage value changes, income model attributes or overrides, economic factor (cost overrides) and special factors affecting the property valuation such as new construction status, prior year litigation and a three-year sales history (USPAP property history requirement for non-residential property). The appraiser may review methodology for appropriateness to ascertain that it was completed in accordance with USP AP or more stringent statutory and district policies. This review is performed after preliminary ratio statistics have been applied. If the ratio statistics are generally acceptable overall the review process is focused primarily on locating skewed results on an individual basis. Previous values resulting from protest hearings are individually reviewed to determine if the value remains appropriate for the current year based on market conditions. Each appraiser's review is limited to properties in their area of responsibility by property type (improved) or geographic area (commercial vacant land).

Once the appraiser is satisfied with the level and uniformity of value for each commercial property within their area of responsibility, the estimates of value go to supervisory review and ratio testing. Therefore, although the value estimates are determined in a computerized mass appraisal environment, value edits and rework lists enable an individual parcel review of value anomalies before the estimate of value is released for noticing.

PERFORMANCE TESTS

The primary tool used to measure mass appraisal performance is the ratio study. A ratio study compares appraised values to market values. In a ratio study, market values (value in exchange) are typically represented by sales prices (i.e., a sales ratio study). Independent expert appraisals may also be used to represent market values in a ratio study (i.e., an appraisal ratio study). If there are not enough sales, independent appraisals can be used as indicators for market value. This can be particularly useful for commercial 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 based on productivity or use value.

NCAD has adopted the policies of the IAAO STANDARD ON RATIO STUDIES, circa July 1999 regarding its ratio study standards and practices. Ratio studies generally have six basic steps: (1) determination of the purpose and objectives, (2) data collection and preparation, (3) comparing appraisal and market data, (4) stratification, (5) statistical analysis, 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 property types for reappraisal; identification of potential problems with appraisal procedures; assist in market analyses; and, to calibrate models used to derive appraised values during valuation or reappraisal cycles. However, these studies cannot be used to judge the accuracy of an individual property appraised value. The Nueces County Appraisal Review Board may make individual value adjustments based on unequal appraisal (ratio) protest evidence submitted on a case-by-case basis during the hearing process.

Overall sales ratios are generated semi-annually by use type (or more often in specific areas) to allow appraisers to review general market trends in their area of responsibility. The appraisers utilize desktop applications such as Microsoft 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). A copy of the district's latest ratio study is attached.

Comparative Appraisal Analysis

The commercial appraiser performs an average unit value comparison in addition to a traditional ratio study. These studies are performed on commercially classed properties by property use type (such as apartment, office, retail and industrial usage or special use). The objective to this evaluation is to determine appraisal performance of sold and unsold properties. Appraisers' average unit prices of sales and average unit appraised values of the same parcels and the comparison of average value changes of sold and unsold properties. These studies are conducted on substrata such as building class and on properties located within various economic areas. In this way, overall appraisal performance is evaluated geographically, by specific property type to discern whether sold parcels have been selectively appraised. When sold parcels and unsold parcels are appraised equally, the average unit values are similar. These horizontal equity studies are performed prior to annual noticing.

PERSONAL PROPERTY VALUATION PROCESS

INTRODUCTION

Scope of Responsibility

This mass appraisal assignment includes all business personal property. The Personal Property appraisers are responsible for developing equal and uniform market values for personal property. There are eight different personal property types appraised by the district's personal property appraisers: business personal property accounts, leased assets, vehicles, multi-location assets, vessels, aircrafts, dealer inventory and billboards. There are approximately 18,000 business personal property accounts in Nueces County.

Appraisal Resources

Personnel -The personal property staff consists of nine field appraisers, one coordinator and one manager responsible for determining business personal property values:

- **Personnel**
    - Manager of Personal Property - Robert King, RPA
    - Coordinator of Personal Property – Jessica Moya, RPA
    - The personal property staff consists of nine appraisers and responsible for determining business personal property values:
        - Roseann Garcia, RPA
        - Gonzalo Gonzales, RPA
        - Stephanie Griffis, RPA
        - Josh Villarreal, RPA
        - Nora Juarez, RPA
        - Brian Fields, RPA
        - Ernie Arredondo
        - Daniel Gutierrez
        - Heather Sanchez

- **Data** - A common set of data characteristics for each personal property account in Nueces County is collected in the field and data entered to the district's computer. The property characteristic data drives the computer-assisted personal property appraisal system. The personal property appraisers collect the field data.

Education and Training

All appraisers and their manager are subject to the provisions of the Property Taxation Professional Certification Act and are registered with the Texas Department of Licensing & Regulation. Three Appraisers are working towards the 182 hours of appraisal courses to achieve certification as a Registered Professional Appraiser (RPA). Eight Appraisers are currently in a 24-month period after certification and are working on 30 hours of continuing education that include 2 hours of professional ethics, 2 hours of state laws & rules course, and 3.5 hours of USPAP refresher. Failure to meet these minimum standards will result in the removal of employee from an appraiser position.

Additionally, all appraisal personnel receive extensive training in data gathering processes used in fieldwork and statistical analyses of all types of property to ensure equality and uniformity of appraisal of all types of property. On-the-job training is provided by managers and senior staff for new appraisers. In addition,

managers meet with appraisal staff regularly to introduce new procedures and monitor appraisal activity to ensure that standardized appraisal procedures are followed.

Personal Property Valuation Process

VALUATION APPROACH (Model Specification)

NAICS Code Analysis

Business Personal Property is classified and utilizes six-digit numeric codes, called North American Industry Classification System (NAICS) codes that were developed under the direction and guidance of the Office of Management and Budget as the standard for use by Federal statistical agencies in classifying business establishments. NCAD uses these codes to classify personal property by business type. There are more than 800 NCAD personal property NAICS codes. NAICS is based on a production-oriented concept, meaning that it groups establishments into industries according to similarity in the processes used to produce goods or services.

Highest and Best Use Analysis

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

DATA COLLECTION/VALIDATION

Data Collection Procedures

Personal property data collection procedures are published and distributed to all appraisers involved in the appraisal and valuation of personal property. The appraisal procedures are reviewed and revised to meet the changing requirements of field data collection.

SOURCES OF DATA

Business Personal Property

The district's property characteristic data was originally received from the Nueces County and various school district records in 1980 and where absent, collected through a massive field data collection effort coordinated by the district over a period. During the discovery phase of personal property appraisal, the district appraisers collect new data via an annual field drive-out. This project results in the discovery of new businesses not revealed through other sources. Various discovery publications such as County Assumed Name Certificates, County court reports, area newspapers, Internet, open record requests, TX Comptroller Sales Tax Listing, TXDOT billboard permits, Air Pac for aircraft and state sales tax listings are also used to discover personal property. Tax assessors, city and local newspapers, and the public often provide the district information regarding new personal property and other useful facts related to property valuation.

Vehicles

An outside vendor, Just Texas, provides NCAD with a listing of vehicles within Nueces County and overlapping jurisdictions. The vendor develops this listing from the Texas Department of Transportation (DOT) Title and Registration Division records. Other sources of data include property owner renditions and field inspections.

Leased and Multi-Location Assets

The primary source of leased and multi-location assets is property owner renditions of property

Other sources of data include field inspections.

Personal Property Valuation Process

VALUATION AND STATISTICAL ANALYSIS (Model Calibration)

Cost Schedules

Cost schedules are used in the general business personal property valuation to estimate the value of new accounts for which no property owner's rendition is filed, or where the property owner rendition lacks sufficient information. The business personal property department uses schedules prepared by state appraisers, other appraisal districts, Marshall Valuation Service, and other cost estimates for use in the valuation of business personal property. NCAD also develops schedules based on analyzing cost data from property owner renditions, hearings, state schedules, and published cost guides. The schedules are typically in a price per square foot format, but some exception SIC's are in an alternate price per unit format, such as per room for hotels.

DEPRECIATION SCHEDULE AND TRENDING FACTORS

Business Personal Property

NCAD'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 NCAD developed valuation models. The trending factors used by NCAD to develop RCN are based on published valuation guides. The percent good depreciation factors used by NCAD are also based on published valuation guides.

MARKET VALUE ESTIMATE = PERCENT GOOD FACTOR X HISTORICAL COST

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

MODEL BUILDING FOR PERSONAL PROPERTY APPRAISAL

The model building valuation process has two main objectives:

1) Analyze and adjust existing NAICS models.

2) Develop new models for business classifications as needed. Models use actual original cost data to derive a typical replacement cost new (RCN) per square foot for a specific category of assets. The RCN per square foot is depreciated by the estimated age using the depreciation table adopted for the tax year.

Personal Property Valuation Process

MODEL BUILDING FOR PERSONAL PROPERTY APPRAISAL

Model values are used in the general business personal property valuation program to estimate the value of new accounts for which no property owner's rendition is filed, or where the property owner rendition lacks sufficient information. Model values are also used to establish tolerance parameters for testing the valuation of property for which prior data year's 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. The appraiser's review of accounts that fail the tolerance parameters may make additional refinements to the models as necessary.

Transportation (Vehicles, Vessels and Business Aircraft)

A vehicle master file is received on cd from an outside vendor and vehicles in the district's system from the prior year are manually matched to current Department of Transportation records. The vehicles remaining after the matching process are sorted by owner name and the owners are then prioritized by the number of vehicles owned. These vehicles are then matched to existing accounts and new accounts are created as needed. Vehicles that are not valued by the vendor are valued by an appraiser using the vehicle depreciation schedule or published guides.

Vehicles, vessels and business aircraft are manually valued using depreciated cost or recognized valuation guides.

Leased and Multi-Location Assets

Leasing and multi -location accounts that have a high volume of vehicles or other assets are loaded to a Microsoft Excel spreadsheet if reported by the property owner electronically. These electronic renditions are usually rendered on a cd. Accounts that render by hard copy are transferred to Microsoft Excel spreadsheet, calculated, totaled and summarized electronically. After matching and data entry, reports are generated and reviewed by an appraiser. When proofed, the report is mailed to the property owner for review. Corrections are made and the account is noticed after manager or director approval.

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 NCAD's personal property values and ratios are formed.

2022 Total Value Report by Entity

Unit Code	Taxing Entity	Market Value	Taxable Value
C03	CITY OF CORPUS CHRISTI	36,315,239,208	27,234,728,431
C04	CITY OF ROBSTOWN	736,414,720	460,680,062
C05	CITY OF BISHOP	201,381,292	140,508,715
C06	CITY OF AGUA DULCE	34,203,690	19,361,250
C07	CITY OF DRISCOLL	42,433,408	27,957,753
C08	CITY OF PORT ARANSAS	4,509,111,401	3,953,251,644
C10	CITY OF ARANSAS PASS	53,522,623	20,736,528
DMDI	DOWNTOWN MANAGEMENT DIST - IMPROVEME	245,830,413	220,766,318
DMDL	DOWNTOWN MANAGEMENT DIST - LAND	51,032,670	40,311,606
DQ	ROBSTOWN DRAINAGE DISTRICT #2	1,341,878,411	753,440,097
DR	BISHOP DRAINAGE DISTRICT #3	211,034,789	128,052,928
FU	EMERGENCY SERVICE DISTRICT #1	6,755,823,533	5,189,828,787
FV	EMERGENCY SERVICE DISTRICT #2	5,607,324,322	4,626,387,738
FH	EMERGENCY SERVICE DISTRICT #3	1,321,976,215	922,020,593
FX	EMERGENCY SERVICE DISTRICT #4	1,081,324,240	821,804,475
FY	EMERGENCY SERVICE DISTRICT #5	204,111,256	111,299,203
FZ	EMERGENCY SERVICE DISTRICT #6	1,321,019,745	981,727,251
GNU	NUECES COUNTY	54,104,614,053	40,013,761,122
HOSP	HOSPITAL DISTRICT	54,105,552,178	40,395,837,497
JRC	DEL MAR COLLEGE	44,467,403,318	35,392,085,862
PITIF	PADRE ISLAND TIF	795,579,350	721,545,087
TIF3	DOWNTOWN TIF	1,009,714,700	632,444,598
TIF5	ROBSTOWN TIF	57,389,528	10,890,937
RFM	RURAL FARM TO MARKET	54,105,357,453	40,284,934,608
SA	LONDON ISD	1,223,746,070	819,143,370
SC	BANQUETE ISD	1,081,498,250	788,107,095
SE	CORPUS CHRISTI ISD	27,995,404,933	20,688,963,417
SF	TULOSO-MIDWAY ISD (M&O)	4,699,849,488	3,437,156,909
SG	WEST OSO ISD	1,472,201,860	973,099,927
SJ	FLOUR BLUFF ISD	5,615,581,630	4,278,342,367
SK	AGUA DULCE ISD	223,649,836	131,786,574
SL	CALALLEN ISD (M&O)	3,742,301,458	2,155,983,400
SM	PORT ARANSAS ISD	5,235,623,734	4,356,219,433
SN	BISHOP ISD	1,340,055,018	919,384,231
SO	ROBSTOWN ISD	1,267,960,251	738,222,366
SP	DRISCOLL ISD	175,652,143	98,816,253
SR	ARANSAS PASS ISD	25,261,134	17,791,072
TIRZ4	NORTH BEACH TIRZ	277,311,436	182,947,055
TIRZ5	BOHEMIAN COLONY TIRZ	14,080,240	5,614,654
WI	SOUTH TEXAS WATER AUTHORITY	1,828,921,326	1,295,104,017
WK	KENEDY WATER CONSERVATION DIST	40,077,564	3,351,009
WW	NUECES COUNTY WATER DIST #4 ***(Impose no Levy***	5,261,574,387	4,458,302,498
WZ	BANQUETE WATER DISTRICT #5 ***(Impose no Levy)***	52,829,798	15,361,599

LIMITING CONDITIONS

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

1. The appraisals were prepared exclusively for ad valorem tax purposes
2. The property characteristic data upon which the appraisals are based is assumed to be correct. Exterior inspections of the property appraised were performed as staff resources and time allowed.
3. Validation of sales transactions was attempted through questionnaires to buyer, telephone survey and field review. In the absence of such confirmation, residential sales data obtained from vendors was considered reliable.
4. Following the certification is a list of staff providing significant contributions to the Mass Appraisal Report.
5. Attached is the district's latest ratio study results

Certification Statement:

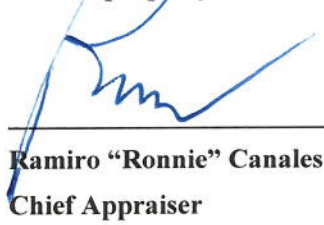
"I, Ramiro "Ronnie" Canales, Chief Appraiser for the Nueces County Appraisal District, solemnly swear all property in the district subject to appraisal by me was appraised as required by law to the best of my knowledge and belief."

Ramiro "Ronnie" Canales, Chief Appraiser

Certification Statement

"I, Ramiro "Ronnie" Canales, Chief Appraiser for the Nueces County Appraisal District, certify that, to the best of my knowledge and belief:

- The statement of fact contained in this report are true and correct.
- The reported analyses, opinion, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- I have no (unless previously disclosed to Nueces CAD) present or prospective interest in the property that is the subject of this report, and I have no (unless previously disclosed to Nueces CAD) personal interest with respect to the parties involved.
- I have performed no (unless previously disclosed to Nueces CAD) services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
- I have made a personal inspection of a portion of the properties that are the subject of this report.
- The attached list contains the Nueces County Appraisal District Appraisers and Contract Appraisers who provided significant mass appraisal assistance in the appraising the property that is the subject of this report.



Ramiro "Ronnie" Canales

Chief Appraiser

STAFF PROVIDING SIGNIFICANT CONTRIBUTIONS TO THE MASS APPRAISAL REPORT

Name	Title	Ext.	Dept.
Don Causey	**Assistant Chief**	**4268**	**Administration**
Guillermo Carrington	**Manager**	**4265**	**Commercial / Land**
Leticia R. Roberts	**Manager**	**4208**	**Residential Real Estate**
Robert King	**Manager**	**4228**	**Business Personal Property**
Christopher Burnette	**Manager**	**4273**	**Market Analyst**
Kristi Hill	**Manager**	**4147**	**Record, Information, and Exemption**
Neil Lindeen	**Manager**	**4138**	**Information Systems**
Thomas Y. Pickett & Co.	**Contract Appraisal Firm**		**Refineries, Utilities, & Minerals**

Taxes
Property Tax Assistance

2020 APPRAISAL DISTRICT RATIO STUDY

Appraisal District Summary Worksheet

178-Nueces

Category	Number of Ratios **	2020 CAD Reported Appraisal Value	Median Level of Appraisal	Coefficient of Dispersion	% Ratios within (+/ -) 10 % of Median	% Ratios within (+/ -) 25 % of Median	Price - Related Differential
A. SINGLE-FAMILY RESIDENCES	1,000	18,450,097,429	0.97	11.79	62.53	84.44	1.03
B. MULTI-FAMILY RESIDENCES	32	1,847,572,287	*	*	*	*	*
C1. VACANT LOTS	187	921,601,777	*	*	*	*	*
C2. COLONIA LOTS	0	0	*	*	*	*	*
D2. FARM/RANCH IMP	0	9,466,399	*	*	*	*	*
E. RURAL-NON-QUAL	38	256,146,118	*	*	*	*	*
F1. COMMERCIAL REAL	272	4,516,021,692	0.97	12.51	64.02	77.00	1.04
F2. INDUSTRIAL REAL	0	7,180,102,712	*	*	*	*	*
G. OIL, GAS, MINERALS	45	62,490,006	*	*	*	*	*
J. UTILITIES	43	1,014,692,420	0.99	10.19	65.95	89.19	1.00
L1. COMMERCIAL PERSONAL	171	2,423,063,557	1.03	12.15	61.43	88.09	1.03
L2. INDUSTRIAL PERSONAL	0	1,252,536,251	*	*	*	*	*
M. OTHER PERSONAL	0	82,432,004	*	*	*	*	*
O. RESIDENTIAL INVENTORY	0	115,870,966	*	*	*	*	*
S. SPECIAL INVENTORY	0	129,419,037	*	*	*	*	*
OVERALL	**2,668**	**38,261,452,655**	**0.97**	**12.75**	**60.79**	**82.02**	**1.03**

Study Results Last Updated: Aug. 16, 2021

*Category result not calculated. Calculation requires a minimum of five ratios resulting from either of the following:

- Five ISDs or half the ISDs in the CAD, whichever is less.

**Statistical measures may not be reliable when the sample is small.