



**2019 – 2020  
REAPPRAISAL PLAN**

**Adopted September 13, 2018**

# **Collin Central Appraisal District 2019-2020 Reappraisal Plan**

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## **INTRODUCTION**

### **General Overview of Tax Code Requirement**

Passage of Senate Bill 1652 in 2005 amended the Texas Property Tax Code (TPTC) to require each appraisal district to prepare a biennial reappraisal plan. The following details the Tax Code requirements.

### **The Written Plan**

Section 6.05, TPTC, is amended by adding Subsection (i) to read as follows:

- (i) To ensure adherence with generally accepted appraisal practices, the board of directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the 10<sup>th</sup> day before the date of the hearing, the secretary of the board shall deliver to the presiding officer of the governing body of each taxing unit participating in the district a written notice of the date, time and place of the hearing. Not later than September 15 of each even numbered year, the board shall complete its hearing, make any amendments, and by resolution finally approve the plan. Copies of the approved plan shall be distributed to the presiding officer of the governing body of each taxing unit participating in the district and to the comptroller within 60 days of the approval date.

### **Plan for Periodic Reappraisal**

Subsections (a) and (b), Section 25.18, TPTC, are amended to read as follows:

- (a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05(i).
- (b) The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:

- (1) identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches;
- (2) identifying and updating relevant characteristics of each property in the appraisal records;
- (3) defining market areas in the district;
- (4) identifying property characteristics that affect property value in each market area, including:
  - (A) the location and market area of the property;
  - (B) physical attributes of the property, such as size, age, and condition;
  - (C) legal and economic attributes; and
  - (D) easements, covenants, leases, reservations, contracts, declarations, special assessments; ordinances, or legal restrictions;
- (5) developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;
- (6) applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
- (7) reviewing the appraisal results to determine value.

### **Scope of Responsibilities**

The Collin Central Appraisal District (“CCAD” or “District”) has prepared and published this reappraisal plan to provide our Board of Directors, taxing units, citizens and taxpayers with a better understanding of the District's responsibilities and reappraisal activities. This report has several parts: a general introduction and then, several sections describing the proposed 2019-2020 reappraisal effort by the appraisal departments of the District.

The Collin Central 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. A member Board of Directors, appointed by the taxing units within the boundaries of Collin County, constitutes the District's governing body. The Chief Appraiser, appointed by the Board of Directors, is the Executive Director of the appraisal district.

CCAD is responsible for local property tax appraisal and exemption administration for fifty-eight jurisdictions or taxing units. Each taxing unit, such as the county, a city, a school district, community college, water district, a MUD, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services. Property

appraisals are estimated values by the appraisal district and used by the taxing units to distribute the annual tax burden. The appraisals are generally based on each property's worth or market value. The District also administers and determines eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled persons, disabled veterans, and charitable or religious organizations.

The TPTC, except as otherwise provided, states that all taxable property is appraised annually at its "market value" as of January 1<sup>st</sup>. Under the Tax Code, "market value" means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

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

The Texas Property Code defines special appraisal provisions for the valuation of residential homestead property (Sec. 23.23), productivity (Sec. 23.51), 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. 21.03). The 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. CCAD's current policy is to conduct a general reappraisal of real and business personal property value every year, meaning that a property's appraised value is established and reviewed for equality and uniformity 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) program, referred to as "PACS" (Property Appraisal & Collections System), and generally recognized appraisal methods and techniques, registered and trained appraisers compare the subject property information with data for similar properties and 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 TPTC 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 Six) when the appraised value of a property is established using mass appraisal techniques.

### **Plan Review, Amendments and Alterations**

The Board of Directors, acting on a request from the Chief Appraiser, may review, amend or alter this plan at the beginning of plan year two, if:

- the Chief Appraiser's request is made during a public Board of Directors meeting and is properly listed on the agenda for the Board meeting; and
- the Chief Appraiser identifies the portion of the plan to be altered or amended and substantiates the need to alter or amend the plan.

### **Calendar Amendments and Alterations**

The Chief Appraiser is authorized to administratively amend or alter the 2019-2020 Calendar of Key Events, shown in Appendix B, as he deems necessary. Calendar changes can be made periodically and will not be considered as alterations or amendments to the plan and do not require action by the Board of Directors.

## **OVERVIEW OF DISTRICT OPERATIONS**

2019-2020 Mass Appraisal Flow Chart - See Appendix A

2019-2020 Calendar of Key Events - See Appendix B

2019-2020 Key Personnel in Reappraisal Plan Implementation – See Appendix C

2019 & 2020 Budget Adopted Annually by Reference

### **Personnel Resources**

The office of the Chief Appraiser is primarily responsible for the 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 land, commercial, residential, and business personal property. By authority of the Texas Occupations Code, the District's appraisers are subject to the laws and rules of Chapters 51 and 1151, and must be duly registered with The Texas Department of Licensing and Regulation. Customer support, including information and assistance to property owners and homestead exemption administration is the responsibility of the Customer Service Department.

The District staff, based on the 2019 adopted budget, consists of 134 (133 full time and 1

part-time) employees in the following departments:

- 8 – Administration (chief appraiser and business services)
- 64 – Appraisal Services (appraisal related functions including data collectors, abatements, absolute exemptions and litigation)
- 4 – ARB (ARB support services and arbitration)
- 17 – Customer Service (customer support & residential exemptions)
- 13 – GIS, Mapping, & Records (GIS, maps, imagery, deed records, and records management)
- 8 – Information Services Technology (technology related functions)
- 20 – Support Services (appraisal support staff)

### **Staff Education and Training**

All appraisal district employees that perform appraisal work are subject to the laws and rules of Chapters 51 and 1151 of the Texas Occupations Code for Property Tax Professionals and must be duly registered with the Texas Department of Licensing & Regulation (TDLR). 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.

Upon registration, appraisers registered with the Texas Department of Licensing & Regulation have up to five years to take a series of appraisal courses and exams in order to achieve certification as a Registered Professional Appraiser (RPA). During each subsequent 24-month period after certification, appraisers, except chief appraisers, must complete 30 hours of continuing education including 2 hours in professional ethics, the approved state laws and rules update course, and 3.5 hours of USPAP. Chief appraisers during this subsequent 24 month period after certification must complete 30 hours of approved continuing education including at least 15 hours in programs devoted to one or more of the topics listed in Texas Occupation Code 1151.164(b) and 2 hours in professional ethics specific to the chief appraiser of an appraisal district, including a program on the importance of maintaining the independence of an appraisal office from political pressure.

Additionally, all appraisal personnel receive extensive training in the data gathering and valuation processes. Standardized manuals are provided to ensure uniform and accurate data collection. Senior personnel provide on the job data collection training in the office and reappraisal field area. Managers meet regularly with staff to introduce new procedures and regularly monitor appraisal activity to ensure that all personnel are following standardized appraisal methods and techniques.

## **Data**

The District is responsible for establishing and maintaining approximately 343,765 real and personal property accounts covering 889 square miles within its territorial boundaries. This data includes property characteristic, ownership, and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field and office review. Sales are validated, as possible, during office review and a separate field effort when applicable; as well as being validated as part of the building permit process and annual reappraisal effort. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires to buyers, real estate publications and services, and market data centers and vendors.

The District has a geographic information system (GIS) that maintains maps and various layers of data, including aerial photography. The District's taxpayer website provides a broad range of information available for public access, including detailed information on the appraisal process, property characteristics data, certified values, protests and appeal procedures, a list of taxing entities, links to other government agencies and property maps. Downloadable files of related tax information, District forms, exemption applications and business personal property renditions are also available.

## **Information Systems**

The Information Services Technology (IST) Department maintains the District's data processing facilities, software applications, internet website, and geographical information systems (GIS). The District operates under SQL relational databases. The primary makeup of server architecture is Intel/Microsoft based and the user base consists of general-purpose workstations running primarily Microsoft Windows. Active Directory is utilized for domain (LAN) management. Internet, VPN, FTP and external site hosting is secured at the user/group level with an IPS firewall and demilitarized zones. Our geographic information system software is an ESRI based product (ArcGIS/SDE). The District's Property Appraisal Collections System (PACS) is the software application that integrates our Computer Assisted Mass Appraisal (CAMA) system, document imaging, Pictometry oblique/aerial imagery, ortho photography and GIS.

## **District Boundaries**

Effective January 1, 2008, the District's boundaries are the Collin County boundaries.

## **Independent Ratio Study and Review**

In accordance with Chapter 5 of the Tax Code and Section 403.203 of the Texas Government Code, once every two years, the State Comptroller's Property Tax Division

(PTD) conducts a property value study (PVS) in each appraisal district to determine the degree of uniformity and the median level of appraisal by the appraisal district within each major category of property. As part of this study, the Comptroller is required to apply appropriate standard statistical analysis techniques to data collected as part of the study of school district taxable values. The methodology used in the property value study includes stratified samples to improve sample representativeness and techniques or procedures for measuring uniformity. This study utilizes statistical analysis of sold properties (sales ratio studies) and appraisals of unsold properties (appraisal ratio studies) as a basis for value ratio reporting. The reported measures include median levels of appraisal, coefficient of dispersion (COD) around the median level of appraisal, percentage of properties within 10% of the median, percentage of properties within 25% of the median, and price-related differential (PRD) for properties overall by state category (i.e., categories A, B, C, D, F and L).

There are 22 independent school districts in CCAD for which appraisal rolls are annually developed. The preliminary results of the PVS are released in January of the year following the tax year being studied. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) the following July. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

Alternately from the PVS, once every two years, the Comptroller is required to review the governance, taxpayer assistance, operating and appraisal standards, procedures, and methodology used by each appraisal district, to determine compliance with generally accepted standards, procedures, and methodologies. At the conclusion of the review, the Comptroller releases the performance of the MAP review to the appraisal district.

## **APPRAISAL ACTIVITIES**

### **Mass Appraisal Flowchart**

The District's management and appraisal staff utilize the Mass Appraisal Flowchart, included in this document as Appendix A, as a general tool to manage the CCAD's reappraisal project workflow.

### **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, land and building characteristics. The appraisal staff is responsible for administering, planning and coordinating all activities involving data collection and maintenance of commercial,



residential and personal property types which are located within the boundaries of Collin CAD. The data collection effort involves the field inspection of real and personal property accounts, as well as data entry of the data collected into the CAMA system. The goal is to periodically field inspect residential and commercial properties in the District a minimum of once every three years. The use of aerial imagery and a periodic digital photography project may also be used in meeting this goal. Ultimately, this goal is dependent on budgetary constraints.

## **Appraisal Resources**

Personnel - The appraisal activities consist of 54 appraisers and 34 support personnel.

Data - The data used by field appraisers include the existing property characteristic information contained in PACS. The data is collected manually and through mass input techniques. Other data utilized are maps, sales data, fire and damage reports, building permits, photos and actual cost information.

## **Preliminary Analysis**

Data Collection/Validation - Data collection of real property involves maintaining data characteristics of the property in PACS. Some examples of the information contained includes site characteristics, such as acreage or square footage amounts, and improvement data, such as square foot of living area, year built, quality of construction, and condition. Field appraisers use appraisal manuals that establish uniform procedures for the correct listing of real property. All properties are coded according to these manuals and the approaches to value are structured and calibrated based on this coding system. Appraisers use these manuals during their initial training and as a guide in the field inspection of properties.

The type of information contained in PACS for business personal property include business inventory, furniture and fixtures, machinery and equipment, location and historical cost, if known. Appraisers conducting on-site inspections use a personal property manual during their initial training and as a guide to correctly list all personal property that is taxable.

Sources of Data - Sources of data are collected through the construction field efforts, reappraisal, informal appraisal reviews, ARB hearings, sales processing, mechanic liens, newspapers and publications, property owner correspondence and inquiries received via the District's website. The principal source of data comes from building permits received from taxing jurisdictions that require property owners to obtain a building permit for construction and/or repairs. Where available, permits are received electronically and loaded in PACS. Otherwise, paper permits are received and matched manually with the

property's primary identification number by support services staff and then updated in PACS.

Data review of entire residential neighborhoods is generally a good source for data collection. Residential appraisers drive assigned neighborhoods to review the accuracy of the data and identify properties that need to be updated during the permit and reappraisal effort. During sales processing, property characteristics are also verified. Residential and commercial sales validation efforts involve office review and verification; and when needed, on-site inspections by field appraisers to verify property characteristics. Sale surveys are also mailed to grantors or grantees on all undisclosed residential and commercial sales.

Property owners are one of the best sources for identifying incorrect data that generates a field check. Frequently, the property owner provides sufficient data to allow correction of records without having to send an appraiser on-site. As the District updates information to its website, property owners have the opportunity to notify CCAD of data inconsistencies. For the property owner without access to the internet, letters are often submitted notifying of inaccurate data. Inconsistencies are addressed with an on-site visit by a data collector or appraiser.

### **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. Appraisers are assigned throughout the county to conduct field inspections and record information in PACS accordingly. The quality of 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 is the responsibility of each appraiser. New appraisers are trained in the specifics of data collection set forth in the appraisal manual. All appraisers are routinely trained and mentored in listing procedures prior to field projects such as new construction and reappraisal. A quality control process exists through supervisory review of the work being performed by staff appraisers. Supervisors are charged with the responsibility of ensuring that appraisers follow listing procedures, identify training issues and provide uniform training throughout the appraisal staff. When applicable, senior appraisers will also assist with quality control of the appraisal product.

### **Individual Value Review Procedures**

Field Review - The date of last inspection, comments regarding the inspection, if applicable and the assigned appraiser are listed on the appraisal 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, then the record may be altered based on the evidence provided. When needed, a field inspection is conducted to verify the evidence for the current year's valuation or for the next year's valuation. Every year a field review of certain commercial market areas and residential neighborhoods in the jurisdiction are performed during the annual reappraisal effort.

Office Review - Office reviews are completed on properties where information has been received from the owner of the property, taxing jurisdictions, or other sources. Aerial and digital photographs are also used to verify property characteristics. When the property data is verified in this manner, field inspections may not be required.

Performance Test – Appraisal management, senior appraisers and staff appraisers are responsible for conducting ratio studies and comparative analysis to insure accurate and equitable appraised values.

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# Residential Property Valuation Process

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## INTRODUCTION

### **Scope of Responsibility**

Residential staff appraisers incorporate a systematic approach and uniform application of appraisal methods and techniques to obtain estimates of value that allow for statistical review and analysis of results. Residential appraisal assignments are delineated from commercial assignments on the basis of state use code guidelines as established by the Comptroller's Office. The residential staff values residential single family, multifamily housing other than apartments, improvements on rural acreage and mobile homes. Residential appraisers are responsible, when a residential subdivision is substantially built-out, for establishing lot values and reviewing land to property ratios. Prior to a subdivision's substantial build-out, residential appraisers will review the land department's lot appraisals and provide feedback as deemed appropriate.

### **Appraisal Resources**

- **Residential Personnel** - The residential appraisal staff consists of a director, a manager, six senior appraisers, 21 staff appraisers and additional support staff. Each senior appraiser is responsible for managing a team of staff appraisers and reviewing their assignments for accuracy and uniformity. Each residential staff appraiser has an average parcel count of approximately 16,000 properties. Residential senior appraisers are responsible for the more complex residential market areas. Complex market areas are generally referred to as those market areas with an average market value of \$700,000 or greater, and/or with property class codes being indicative of complex properties. Due to the nature of these assignments and the time necessary to complete the field work, senior appraiser account loads are an estimated 4,000 parcels.
- **Land Personnel** – The Land Department consists of a director, 6 staff appraisers and additional support staff. Appraisal territories are delineated by school district boundary lines.
- **Data** - A common set of data characteristics for each residential dwelling within the CCAD is collected in the field and the data is then entered into PACS. This property characteristic data drives the computer-assisted mass appraisal (CAMA) approach to valuation. Property data attribute information is verified and corrected based on on-site inspections as well as office review using digital photography or aerial oblique imagery.

## **Assignment**

The Texas Property Tax Code, Section 25.18(b), requires the reappraisal plan to include a re-inspection of all real & personal property in the district at least once every three years.

Re-inspection of the Universe of Properties - Real property re-inspection for the 2019 and 2020 tax years will be completed using a combination of field inspections and office review. Office review of property will include: 1) the use of aerial photography and GIS imagery which allows for digital verification of building measurements and visual inspection of external economic influences, 2) existing property sketches and property characteristics, and 3) information obtained thru MLS searches where discrepancies in square footage and/or improvements to the property are noted and physically inspected for differences. For the 2019 tax year, a full growth flight pattern is scheduled to be flown on or around January 1, 2019. The 2020 tax year flight will be dependent on budget approval and is expected to be a full growth flight as well.

Re-inspection of Problematic Market Areas - A general reappraisal of all residential property is conducted annually utilizing a sales ratio study for each neighborhood. The selection process to facilitate a physical inspection of residential property, to ensure a re-inspection is performed at least once every three years, will be completed using a combination of resources and tools to determine which properties are slated for the re-inspection. The primary tool utilized to determine problematic market areas is the Pre-field Preparation Pack ("PFPP"). Staff appraisers utilize the PFPP to review numerous characteristics and trends of defined market neighborhoods within the county to prioritize each year's data collection workflow. Based on assigned accounts and organized into their market area neighborhoods, a PFPP report is prepared for each residential appraiser. For each neighborhood, the appraiser is able to review the following information: 1) the prior appraisal year's market status code which is assigned during the reconciliation period to reference the level and type of sales activity within the neighborhood; 2) the number of properties found within the neighborhood; 3) the number of deeds without known sale prices and the number with confirmed sale prices that have occurred within the current calendar year of appraisal (i.e. For 2019 dates = 02/01/2018-01/31/2019); 4) profile ratio study statistics to include number of sales analyzed, median sales ratio in comparison to appraised value, land value to median sales price ratio, land value to median appraised value ratio, and the sales ratio coefficient of dispersion (COD); 5) the number of real estate owned (REO) and short sale deeds, with confirmed sale prices, that have occurred within the current calendar year of appraisal and the percentage of this activity in relation to the total number of current calendar year sales; 6) breakdown of the number of quality classes within the neighborhood, the number of new construction starts, the number of vacant lots, and the number of January 1<sup>st</sup> re-inspections which are placed on accounts to review

items of specific concern (i.e. known condition issues, additions, taxpayer requested inspections, etc.); 7) number of informal inquiries and formal protests from the prior year and the ratio of these as it relates to the total property count for the neighborhood; and 8) breakdown of points assigned to sales ratio, land to market ratio, COD ratio, current year deeds without known sale prices, ratio of REO and short sale concentration as it relates to the number of current year sales, new construction starts, January 1<sup>st</sup> re-inspections, the ratio of prior year inquiry and formal protests. Point totals are summed and a ratio is determined by dividing by 60, the total number of points possible. From this ratio a priority rating of 1-4, with 1 being the highest priority, is assigned to the neighborhood. In addition, 9) the property code showing the last year the neighborhood was field inspected (FLD13 or FLD14) is reviewed and coded for re-inspection if the neighborhood was last inspected outside of two years.

The PFPP report is updated after certification of the prior year and has the ability to be refreshed at any time throughout the current appraisal year. Prior to the start of field inspections, the data contained within the PFPP report is reviewed and used by the residential appraisal staff to assist them in preparing individual Business Work Calendars, which is a calendar and worksheet comprised of the neighborhood and account totals to be physically inspected for the upcoming appraisal year. Neighborhoods that are categorized as a priority “#1”, based on PFPP point totals, are physically inspected each year with their property counts calculated into the appraisers’ Business Work Calendar. Rural abstract and sub-division platted parcels that are outside city limit boundaries are physically inspected each year and also calculated into the Business Work Calendar. The remaining properties calculated into the Business Work Calendars come from those neighborhoods without field inspection property codes from the previous two years, thus ensuring each property within the county is physically inspected, at a minimum, once every three years. Through the use of the PFPP report and Business Work Calendars, appraisers are able to successfully plan their field work assignment in an organized and efficient manner that maximizes the appraisal districts’ ability to allocate its resources and manage the quality of work produced.

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

### **Land Analysis**

A complete analysis of all land situated within the jurisdiction of Collin Central Appraisal District is conducted by the land appraisal department each tax year. A base lot value is developed for each residential parcel and may be table driven or flat priced. Specific land influences are used, as necessary, to adjust parcels outside the neighborhood norm for such factors as shape, location, size, and topography, among others. The appraisers use sales data when available, or abstraction or allocation methods to insure that the land

values developed best reflect the contributory market value of the land to the overall property value.

### **Residential Inventory**

The market value of an inventory is the price 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. Per Section 23.12 of the Texas Property Tax Code, certain residential real property owned by the developer or builder may qualify for residential inventory analysis. There are three levels of trade (retail, builder, and developer) to consider when calculating the discount. The first step is to establish the retail value of the land and any improvements. The retail value is what the end user or homeowner would pay for the completed property. The builder and developer discounts are derived by discounting the retail values to present value by an appropriated discount rate through a discounted cash flow analysis (DCF). All completed residential lots and any improvements whether vacant or in any stage of completion are appraised initially at the retail level. The builder level of trade is considered to be at the wholesale level of trade. The builder may be on a takedown schedule to purchase a certain number of lots per quarter. The developer level of trade is considered to be at the manufacturer level. The developer assumes more risk than the builder because of the incurring development costs and holding the bulk of the lots until the subdivision is sold out. To determine the retail value, the appraiser will look to the market to see what the property would sale for with a willing buyer and a willing seller.

The Chief Appraiser will establish procedures for the equitable and uniform appraisal of inventory. The discount rate for each year's inventory analysis is calculated by adding the BAA bond rate from January 1<sup>st</sup>, as published by the St. Louis Federal Reserve Bank, to the overall consumer price index as of January 1<sup>st</sup>. There is a risk factor added to the total of the BAA rate and the CPI, usually in the 2-5% range. As an example, we might use 2.5% when the economy is strong and 5% when the economy is weak.

### **Area Analysis**

Data on regional economic forces such as demographic patterns, regional location factors, 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. These sources help to provide field appraisers with a current economic outlook on the real estate market. Information is gathered from real estate publications, local real estate agents, fee appraisers, as well as the RAD report. Other sources include seminars, conferences, and continuing education courses that are required by the TDLR.

### **Neighborhood (Market Area) Analysis and Delineation**

Neighborhood analysis involves the examination of how physical, economic,

governmental, 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. Analysis of comparable market sales data forms the basis of estimating market activity and the level of supply and demand affecting market prices for any given neighborhood. Market sales reflect the effects of these market forces and are interpreted by the residential appraisers into an indication of a market value range for a given neighborhood. Although all three approaches to value are considered, residential sales can best be interpreted and applied using two generally accepted appraisal techniques; the cost approach and the market approach also known as the comparable sales approach. Generally, the comparable sales approach is utilized for residential properties as this method best replicates the actions of buyers and sellers. For low density multiple family properties or for residential rental properties the income approach to value may also be considered.

The first step in a neighborhood analysis is the identification of a group of properties that share certain common elements. A "neighborhood", for analysis purposes, is defined as a grouping of properties where the property's physical, economic, governmental and social forces are generally similar and uniform. This grouping is often considered geographically or, as appropriate, may be delineated by grouping properties of similar construction within a geographic area. This stratification facilitates the measurement of local supply and demand factors that affect value. As neighborhoods are identified, the next step is to define their boundaries. This process is known as "delineation". Some factors used in neighborhood delineation include location, sales price range, lot size, zoning, age of dwelling, quality of construction, condition, and square footage of living area. Delineation involves the establishment of neighborhood boundary lines and the creation of corresponding neighborhood codes for properties within the grouping.

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, decline or revitalization. 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 may 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 may be more desirable due to their stability of residential character and proximity to the workplace and other community facilities. The period of decline may reflect diminishing demand or desirability. During this stage, 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, which is often recognized as the revitalization of a neighborhood.

Neighborhood identification and delineation is the cornerstone of the residential valuation system at the District. All residential analysis work, in association with the residential valuation process, is neighborhood specific. Neighborhoods are visually inspected to verify delineations based on observable aspects of homogeneity. Neighborhoods are periodically reviewed to determine if further neighborhood delineation is warranted. Each residential neighborhood is assigned a neighborhood or sub-neighborhood code based on observable aspects of homogeneity. Sub-neighborhoods are delineated to further refine the grouping of properties within a neighborhood. Typically, this may group properties based on influences of location such as a busy street, creek, greenbelt, golf course, power line, adjacent commercial influence, etc. Further, a region may be delineated in which properties in similar neighborhoods are grouped together at the school district level. An example of this grouping would be estate properties which are rural in nature or truly unique properties. Grouping by region is highly beneficial in areas of limited sales. Defining region groups serves to increase the available market data by linking comparable properties outside a given neighborhood. In all instances, sales ratio analysis, discussed below, is performed at the neighborhood, sub neighborhood (subset) or region level, on a comparable grouping basis.

### **Highest and Best Use Analysis**

The highest and best use of property is the most 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 productive to its maximum. The highest and best use of residential property is generally 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 (redevelopment), 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 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 not the most productive or profitable use and the highest and best use of such property is to demolish the old homes and construct new dwellings. In areas of mixed residential and commercial use, the appraiser reviews properties on a periodic basis to determine if changes in the real estate market require reassessment of the highest and best use of a select category of properties. See also Special Appraisal Provision for Highest and Best Use Valuation.

## **VALUATION AND STATISTICAL ANALYSIS (Model Calibration)**

### **Pricing Schedules**

Residential parcels in the District are valued from building class pricing schedules. The District's base building class schedules have been developed to reflect the county's local residential market. The schedules are developed in a manner similar to the comparative-unit method in that value is estimated in terms of dollars per unit of area as it generally relates to comparable properties. A review of the residential base building class schedules is preformed periodically by comparing comparable building class schedules to the corresponding cost table in Marshall & Swift, a nationally recognized cost estimator. The District then calibrates the residential improvement values at the neighborhood level to arrive at equitable market values.

In aging neighborhoods, where homes have been maintained at various levels of ongoing maintenance, an effective age adjustment may be applied by the appraiser. Please refer to the effective age definition, as found in the most current issue of Marshall & Swift Residential Cost Handbook.

The District recognizes all three approaches to value and considers the cost approach as an acceptable method. However, for residential property the District places primary emphasis on the market approach as it is the most viable and accurate indicator due to it being the approach that replicates the actions of both buyers and sellers. Therefore, as previously stated, residential improvement values derived from building class schedules are adjusted at the neighborhood level by utilizing market driven ratio studies.

### **Income Models**

The income approach to value may be useful to those real properties that are typically viewed as "income producing" if sufficient income data is available. For residential properties this approach may be considered on rental properties where rental incomes are known as well as corresponding sale prices to produce a Gross Rent Multiplier (GRM).

### **Sales Information**

A sales file for the storage of sales data for vacant and improved properties at the time of sale is maintained for residential real property. Residential improved and vacant land sales are collected from a variety of sources, including but not limited to:

- District survey letters sent to buyers & sellers,
- field discovery,
- protest hearings,
- Board of Realtor's MLS,

- builders,
- realtors,
- fee appraisals,
- closing statements, and
- placing “Green Tags” directly on properties with current deed activity where sales information have not been received.

Sales data is used for ratio analysis and neighborhood (market area) value adjustments. Each individual sale is compared to the Districts appraised value for the property to create an individual sales ratio. Sales ratios are grouped for each neighborhood code and statistically analyzed to review market conditions specific to each neighborhood. Coding has been established to define salient facts related to a property’s purchase or transfer and to help determine relevant market sale price information. These codes include: type of instrument conveying title, state code, ratio code, sale type, source of confirmation and financing. Neighborhood sales ratio reports are generated as an analytical tool by the appraiser in the development and estimation of market value. In addition, in an effort to reflect the intentions of both buyer and seller, conditions of a sale must be considered. Any reported concessions made by the seller are considered and may be extracted from the sales price.

### **Statistical Analysis**

The residential appraisal staff performs statistical analysis annually to evaluate whether values are equitable and consistent with the market. Sales ratio studies are conducted on each of the delineated residential neighborhoods (market areas) and a neighborhood profile is produced to study 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 defined market or “neighborhood” and are summarized by year. These summary statistics including, but not limited to, mean, weighted mean, median, coefficient of variation, and coefficient of dispersion provide the appraisal staff tools by which to determine both the level and uniformity of appraised value on a neighborhood basis. The level of appraised value is estimated by measures of central tendency. During Reconciliation each appraiser reviews sales ratio statistics for the neighborhoods in their territory and make decisions as to whether the value level in a neighborhood needs to be adjusted. See Neighborhood Adjustment and Neighborhood Market Trends.

### **The Residential Analysis Database (“RAD”) Report**

The RAD report is utilized to monitor the general direction (i.e. trend) of the residential market at the neighborhood, city, school and county levels through the analysis of

residential sales data. The report displays sales information in a format which allows the appraiser to have a snap shot of sales activity, including arms length transactions as well as REO sales, short sales and homes posted for foreclosure, bracketing the January 1 appraisal date. The RAD report summarizes residential list price information pulled from PACS, which details the number of listings, the ratio of the sales price to list price and the average days on market. The report compares the previous year's appraised value to the current year appraised value, then calculates the percent of change between the two. The RAD reports are typically processed and reviewed three times each year; first, at the beginning of the appraisal analysis during the reconciliation phase; second, after the system is locked, with all 25.19 notice values determined and being processed for printing; and third, after certification of the appraisal roll. While this report provides valuable information to the residential staff appraisers and senior staff, it in no way replaces the Sales Ratio Study which is the primary tool used to analyze market values each year.

### **Neighborhood Adjustment and Neighborhood Market Trends**

Neighborhood adjustments are developed from appraisal statistics provided by ratio studies and are used to ensure that estimated values are consistent with the market. The RAD report is helpful at this point by assisting the appraiser in the identification of market trends within each individual market area. The District's primary approach to the valuation of residential properties uses a hybrid "cost" sales comparison approach. This approach allows for adjustments at the neighborhood level to replicate market influences not captured in the base building class pricing tables. The neighborhood adjustment takes into consideration the location of the market area, physical attributes (size, age and condition of the properties) and all legal and economic attributes that may affect values within the market areas, as well as any other enforceable restrictions.

The following equation denotes the hybrid model used:

$$MV = LV + NBHD \text{ mod } (RCN - D)$$

Whereas, the market value (MV) equals land value (LV) plus the neighborhood modifier (NBHD mod) times the replacement cost new (RCN) less depreciation (D).

Residential land values will be estimated using the base lot method, which establishes the value of the standard or "base" lot, within each delineated neighborhood. The sales comparison analysis, when applicable, or in areas where insufficient vacant land sales exist, the abstraction method, also known as the land residual method and the allocation method, will be used to establish base lot values within a neighborhood and a land table will be created. Land tables are utilized to store a base lot mass pricing code and base lot value. Land adjustments will be applied on individual properties, where necessary, to adjust for such influences as location, shape, size and topography, among others. These

adjustments typically appear as a percentage, either added to or subtracted from the base lot price.

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 market adjustments to the value, produced by the pricing schedules, are needed to bring the level of appraisal to an acceptable standard. Therefore, modifiers are applied uniformly by market area to ensure equitable and accurate market values. Appraisers utilize the neighborhood analysis profile module to perform these calculations and document the neighborhood trends and findings for the given reappraisal effort.

All residential neighborhoods are appraised on an annual basis. A ratio study is utilized by the appraiser to compare appraised values to market values within each delineated neighborhood. Each sale produces a ratio by dividing the appraised value by the confirmed sales price. It is the culmination of all ratios in each neighborhood that produce the sample to which statistical measures are created and reviewed by each appraiser. A neighborhood factor is calculated to appraise the sample properties within each neighborhood at approximately 100% of the median ratio relative to their appraised value. Once tested, the neighborhood factor is applied to both sold and unsold properties within that neighborhood to ensure equitable and accurate market values. Appraisers review and ensure that the sales sample represents the typical/benchmark property in the neighborhood, thus producing representative and equitable values. GIS, aerial oblique photography, digital photography and other edits are used during the neighborhood value review process.

## **SPECIAL APPRAISAL PROVISIONS**

### **Appraisal of Residential Homesteads**

Article VIII, Sec. 1 (i) of the Texas Constitution allows the legislature to limit the annual percentage increase in the appraised value of residence homesteads to 10% under certain conditions. This limitation is commonly referred to as a Homestead “Capped Value”. Section 23.23 of the Tax Code defines the cap on increases in value. The limited value begins in the second year the property qualifies for a residential homestead exemption. The appraised value of a qualified residence homestead may not exceed the LESSER of:

- the market value; or
- the sum of:
  - A. 10 percent of the appraised value of the property for the preceding tax year;
  - B. the appraised value of the property for the preceding tax year; and
  - C. the market value of all new improvements to the property.

### **Special Appraisal Provisions Concerning Highest and Best Use**

Section 23.01(d) of the Texas Property Tax Code states: "The market value of a residence homestead shall be determined solely on the basis of the property's value as a residence homestead, regardless of whether the residential use of the property by the owner is considered to be the highest and best use of the property."

### **Residential Inventory**

Sec. 23.12 of the Texas Property Tax Code provides the definition of market value and inventory: "...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."

Residential inventory is appraised at its market value as of January 1. The District tracks deed conveyances to identify developer and builder ownership as of this date. A discounted cash flow model is developed and is the procedure used annually that considers value relative to income or cash flow, the discount rate and estimated sell-out periods. Residential properties valued in this manner are reviewed annually and inventory consideration is not utilized when ownership by builders has transferred to the property owner as of January 1.

### **Agricultural Appraisal**

The Property Tax Code prescribes "qualified open space land" as being property to be appraised for tax purposes at a productivity value, while also recording market value in the appraisal records. Qualified open-space land is defined as land currently devoted principally to agricultural use to the degree of intensity generally accepted in the area and that has been devoted principally to agricultural use for a specified period of time. This productivity value is based on the land's capacity to produce agricultural products. Property qualifying for agricultural appraisal will have a reduction in taxes based on the difference in agricultural appraisal and the market value of the property. Property taxes are deferred until a change of use of the property occurs. At the time of use change, the taxes are recaptured for up to five previous years, based on the difference in what was paid on the agricultural appraisal and what would have been paid on the market value of the property. If a property received an agricultural appraisal during the current year of use of change, the property is back assessed for the difference between the property's certified market value and the agricultural use value for the current year in which the use changed. Procedures setting forth this method of appraisal are developed and distributed by the State Comptroller's Office via the manual titled The Appraisal of Agricultural Land. An application must be filed with the Chief Appraiser before the 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. After an application is filed, the property is inspected to determine its qualification.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

The District's residential appraisers perform a field review at least once every three years, at which time selected properties are physically driven. Tools utilized in the field review process include but are not limited to the following:

- a neighborhood ratio study,
- information from previous ARB hearings and informal inquiries,
- residential Analysis Database (RAD Report),
- abstract and/or subdivision plats,
- current building permits,
- MLS listings,
- internal listing reports,
- aerial photography,
- field Review Sheet (FRS), and
- Pre-Field Prep Pack (PFPP)

A Field Review Sheet (FRS) is a document that contains recent and historical information on sales and permits, improvement sketches, and pertinent information about each individual property. During the field review process the appraiser will review data items such as: land value, PTAD codes, neighborhood code, legal description, situs, ownership and exemption status, coded rechecks, quality of construction, condition, living area, additional improvements, and other factors contributing to the market value of the property such as physical, functional and economic obsolescence. All properties with active permits are driven annually to determine the percent complete of new construction, additions, pools, out buildings, etc., as of January 1<sup>st</sup>. As applicable, properties with previous protest hearings, informal negotiation, or litigation are reviewed to determine if the previous value considerations remain appropriate for the current year.

### **Office Review**

Once field review is completed, appraisers conduct a valuation review of the properties within each neighborhood as outlined in the discussion of ratio studies and market analysis. Each residential neighborhood profile is reviewed. As mentioned in the assignment section of this plan, a Residential Analysis Database (RAD) Report is utilized by appraisers in order to measure increasing or decreasing market trends within each

individually defined neighborhood, city, and school, as well as the entire county. This report allows the appraiser to study sales activity at various times within different time frames in order to determine if REO transactions are affecting market values. Utilizing the RAD report in conjunction with sales and listings in each market area, the appraisers assign a market area status code. The codes are color specific and are as follows:

- Orange – non-arm's length sales have captured the market and are driving listing and sale price levels.
- Yellow – Too few sales to know if the non-arm's length are driving the market. Listings and seller type should be considered heavily.
- Blue – Volume of non arm's length transactions not exceeding typical for city/school/county.
- Green – Good to strong market, not affected by properties in the foreclosure process or bank owned listings.

This coding system is then captured on the RAD report, as well as other internal reports, to allow the user an overall understanding of the market trends of each delineated neighborhood (market area).

## **PERFORMANCE TESTS**

### **Sales Ratio Studies**

The primary analytical tool used by the appraisal staff to measure and improve performance is the ratio study. The District ensures that the appraised values produced meet the standards of accuracy in several ways. Sales ratios are generated for each neighborhood to allow the appraiser to review market trends within their area of responsibility and provide an indication of market appreciation or depreciation over a specified period of time. While reviewing sales ratios by neighborhood, the sales ratios statistics mentioned previously are generated. This statistical data is reported within each neighborhood profile. Typically, the sales in a profile are within a one year range bracketing the January 1st appraisal date.

### **Equal and Uniform Analysis**

Utilizing guidance from the Texas Property Tax Code, Sections 23.01 & 41.43(b)(3), uniformity of residential property values is woven into each phase of the yearly appraisal process, from data collection to model calibration to neighborhood adjustments and market trending. Upon completion of yearly statistical review of sales ratio's and application of final neighborhood adjustments, residential appraisers and management perform the following tests to ensure final appraisal values are equal and uniform:



- Identification of characteristics of neighborhood benchmark property and review of benchmark representativeness within yearly sales sample.
- Review and compare neighborhood Coefficient of Dispersion (COD) and Price Related Differential (PRD) measurements against IAAO standards.
- Reconciled Analysis (Comparison Approach substituting market appraised value for the sales price).

Equity analysis will continue during informal meetings with property owners, during preparation of evidence for ARB hearings and during post-certification remedies.

### **Management Review Process**

Once the proposed value estimates are finalized by the appraisal staff, senior appraisers review the sales ratios by neighborhood and ISD. This review includes comparison of level of value between neighborhoods. These final ratios are then reviewed by the residential Director and communicated to the Chief Appraiser for final review and approval. The primary objective of these reviews is to ensure that the proposed values within each neighborhood and ISD are equitable and reflect market value.

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# Commercial Property Valuation Process

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## INTRODUCTION

### **Scope of Responsibility**

“Commercial Property” refers to those real properties generally associated with businesses that sell goods or services to the general public or businesses that add value to a product through development, manufacturing, fabrication, or processing of that product. Commercial properties are non-residential and non-agricultural properties usually found in areas zoned for business purposes. They include such property types as office, retail, industrial, hospitality, medical, and apartments, as well as others. The deputy chief appraiser for appraisal operations will apportion valuation responsibilities to the appraisers, generally by type, and the commercial appraiser will then create a work plan designed to complete the valuation assignments.

### **Appraisal Resources**

- **Commercial Personnel** - The commercial appraisal staff consists of a director, 12 appraisers and support staff. Commercial appraisers will meet the requirements of the Texas Department of Licensing and Regulation (TDLR), as well as pursue continuing education training in the International Association of Assessing Officers (IAAO), Texas Association of Assessing Officers (TAAO), Texas Association of Appraisal Districts (TAAD), and other professional organizations. Appraisal responsibilities will be assigned according to property types i.e. apartment, office, retail, industrial, hotels, hospitals, nursing homes, and others.
- **Data** - Market data collected and utilized by the commercial appraisers will include verified sales of improved properties and pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.). Other data considered by the commercial appraiser will include actual income and expense 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 informational data bases will also be reviewed in order to provide additional support for market trends. Splits, merges, ownership changes, and newly recorded additions regarding land in Collin County are updated by the District’s mapping department. Appraisers will be equipped with discovery forms on which appraisers in the field can list new construction found during their field work. Property data attribute information is verified and corrected based on on-site inspections, as well as office review using digital photography or aerial

oblique imagery. The District provides an interactive GIS within PACS with multiple layers of information including outlines of District parcels by year, most current available aerial maps, FEMA data, jurisdictional boundaries, roads/streets, and others. The District's GIS system is searchable by property identification number (PID). Additionally, the District provides aerial photographs from Pictometry International Corporation. Pictometry provides both traditional orthogonal "straight down" photographs as well as oblique images taken from approximately a 40-45 degrees perspective. The District also subscribes to the Dallas Morning News and the Dallas Business Journal and gathers other general and property specific information from other print and online news sources. District staff also collects information from other sources including property owners, neighbors, the internet, real estate agents, brokers and their websites, construction professionals, and other appraisers.

- **Operational Support** – Collin Central Appraisal District will provide office resources, clerical support, data processing support, GIS/mapping support, computing hardware and software, including an application software database sufficient to develop the mass appraisal and prepare the appraisal records.

### **Assignment**

The assignment of each commercial appraiser is to develop annual valuations for commercial properties assigned to them in compliance with the District's biennial reappraisal plan and at market value as defined by the Tax Code located within the boundaries of Collin County with the effective date of January 1st of each year. Appraisers will plan their work and finalize proposed valuations in a timely manner necessary for the delivery of the Notice of Appraised Value as required by §25.19 of the Tax Code. The commercial appraiser will be prepared to review, both informally and formally, the results of their valuations with property owners or their agents and will be prepared, if necessary, to present a defense of their proposed valuations before the Collin Appraisal Review Board. Once values are certified, the commercial appraiser will be prepared to present a defense of value before an independent arbitrator, at a SOAH hearing or as a result of litigation filed by a property owner or agent.

### **Valuation**

The commercial appraiser will use generally accepted appraisal methods and techniques and mass appraisal standards in compliance with USPAP and will take care to use similar methods and techniques for similar properties while also considering the individual characteristics of each property.

### **Legal Attributes Affecting Value**

The effect of changes from governmental restrictions, easements, deed restrictions,

encumbrances, leases, contracts or special assessments will be considered in the individual valuation of the property to which they apply.

### **Identifying and Updating Relevant Property Characteristics**

The District will create and maintain an appraisal record for each commercially classified property and display these properties on its appraisal roll. The appraisal records will include, if known, owner's name and address, property legal description, parcel identifiers, appraised value of land and improvements, applicable exemptions and/or abatements, tax year and other such information required by statute or deemed necessary by the District. Activities scheduled for each tax year include inspection of new construction, demolition, remodeling and re-inspection of specified market areas.

### **Discovery – New Construction**

Utilizing building plans filed with the appropriate taxing jurisdiction, building permits, certificates of occupancy, information from property owners, taxing jurisdictions, tax agents, real estate professionals, real estate publications, media services, oblique imagery, orthographic imagery, physical inspection and other appropriate resources, the commercial appraisal staff will locate, appraise and include in the District's appraisal records new construction based on its market value.

### **Discovery – Remodeling, Reconfiguration and Demolition**

Utilizing building plans filed with the appropriate taxing jurisdiction, building permits, certificates of occupancy, information from property owners, taxing jurisdictions, tax agents, real estate professionals, real estate publications, media services, oblique imagery, orthographic imagery, physical inspection and other appropriate resources, the commercial appraisal staff will analyze the valuation effect of remodeling, reconfiguration or demolition, and update property values as necessary. Appraisers will also utilize business personal property links in the CAMA system for discovery.

### **Field Review and Inspections**

Appraisal assignments for commercial appraisers will be based on property category or property type. Each appraiser will be responsible for conducting inspections of their universe of assigned properties in accordance with this plan and applicable statutes. Each appraiser will also be responsible for conducting field review of properties as necessary. The date of last inspection, notes of inspection as deemed appropriate, and the commercial appraiser responsible will be listed in the appraisal record.

Appraisers' field review will identify the market area and include the review of the property characteristics, such as, building class, quality of construction, physical improvement characteristics, property use, gross and net rentable square footage, access, visibility,

condition, and physical, functional and economic obsolescence factors contributing significantly to the market value of the property, and other observable factors or conditions deemed relevant to or influencing the valuation of the property.

### **Re-inspection of the Universe of Commercial Properties**

The Texas Property Tax Code, Section 25.18(b) requires the re-inspection of the universe of properties at least once every three years. Two-thirds of the existing commercial property base will be inspected during 2019 and 2020. Re-inspection of commercial properties will be completed using a combination of field inspections and office review. Office review of property for the 2019 tax year will include the examination of aerial photography provided by Pictometry, property sketches and existing property characteristics. The use of oblique and orthographic imagery for the 2020 tax year will be dependent on funding in the 2020 budget.

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

### **Preliminary Analysis**

Prior to beginning the valuation activities for an appraisal year, the commercial appraisal staff and deputy chief appraiser will review the results of the preceding year. Goals and objectives will be determined jointly by the commercial staff and management. Budget, calendar issues and resource availability will be considered. Appraisal resources, including staff and system needs, will be evaluated. Appraisal Review Board activity and value changes in the informal appeals process will be reviewed. A preliminary internal ratio study will be produced in order to identify any property category or geographic area that may require additional research or analysis. The commercial appraisal staff will work with support staff to properly identify and input data regarding sold properties, income and expense statements, rents, for sale listings, building permits, building plans and other pertinent information. District administration and personnel will interact with and exchange information with other assessment officials through professional trade organizations.

### **Defining Market Areas**

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 will be collected from both private and public sources and reviewed.

Economic Analysis - The Collin Central Appraisal District consists of a wide variety of property types including residential, commercial and industrial. A market analysis involving the examination of how physical, economic, governmental and social forces, and other influences will be performed. The effects of these forces are also used to identify, classify,

and organize comparable properties into smaller, manageable subsets.

These subsets define economic groups such as improved property use types (apartment, office, retail, industrial, etc.) based upon an analysis of similar economic or market information. This information includes rental rates, building class, date of construction, overall market activity or other pertinent influences. Economic group identification and delineation by each major property use type is the benchmark of the commercial valuation system. The three approaches to value are economic group specific. Economic groups are periodically reviewed to determine if re-delineation is required. These economic groups can be further divided based on their location within a taxing jurisdiction, economic sub-market, or neighborhood.

### **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. 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. In many, if not most instances, the property's current use is the same as its highest and best use.

### **Model Development**

The District will develop models that reflect the relationship among the characteristics affecting value within each property category in the market area. These models, which include cost and income schedules, cost tables and others will be the result of market data studies based on information such as permit costs, rents, expenses and other local market conditions received from public and private sources.

### **Sales Data**

CCAD receives a copy of the deeds recorded in Collin County that convey ownership of commercially classed properties. Where applicable, deed records that are filed in adjacent counties, the District will coordinate acquiring ownership information and copies of said deeds. For those properties involving a transfer of ownership, a sales file will be produced which begins the research and verification process. This initial step in sales verification involves a computer-generated questionnaire, which is mailed to the grantee and grantor in the transaction. In other instances, sales verification will be obtained from other sources

including: brokers, agents, appraisals, as well as local, regional and national real estate and financial publications. Finally, closing statements are often provided during the hearings process. The actual closing statement will be the most reliable and preferred method of sales verification.

### **Cost Tables**

Cost tables will be developed based on the Marshall & Swift Valuation Service. The tables will include the derivation of replacement cost new (RCN) based on the improvement category and class. The tables will also include adjustments for certain property characteristics, such as HVAC, and will list the expected economic life of the improvement category. Because a national cost service is used as a basis for cost models, location modifiers will be necessary to adjust these base costs to the regional and local market area. These modifiers are provided by the national cost services.

Depreciation schedules will be developed based on the range of expected economic life spans of the commercial property categories being appraised. These schedules are then tested, where applicable, to ensure they are reflective of current market conditions. The actual and effective ages of improvements are maintained in the commercial appraisal records. 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.

### **Income Schedules**

Income schedules and other reports which identify typical market operating assumptions of buyers and sellers regarding income-producing properties will be developed. These schedules and reports will be based on physical inspections, information received from property owners and their agents, operating data and statistical analysis from real estate and financial publications, and other public or private sources.

Using collected income data, the commercial appraisers will attempt to determine typical operating conditions found in different income-producing property types. The ranges of various income value components such as base rent, other income, vacancy and collection loss, operating expenses, capitalization rates, and others will be compiled and utilized in the income valuations.

## **VALUATION AND STATISTICAL ANALYSIS (Model Calibration)**

### **Model Calibration**

Model calibration involves the process of periodically adjusting the mass appraisal formulas, tables and schedules to reflect the contribution of the individual characteristics

affecting values and current market conditions. After these contributions have been considered, adjustments can be made to the models and/or schedules.

### **Cost Schedules**

The cost approach to value will be applied to all improved real property utilizing the comparative unit method. This methodology involves the utilization of the commercial cost tables developed from Marshall & Swift. This approach also employs the sales comparison approach in the valuation of the underlying land value. Land valuation is completed by the Land Department. The depreciated value of all improvements will be added to the land value so that a total property value will be calculated for the individual parcel.

The appraisers will then divide the property types into subsets based on shared common influences of value. The cost approach derived values within these groups will be compared to the results of sales ratio studies, sales comparison grids, income characteristics, and/or other analysis, and the calibration of cost schedules will be considered based on these studies. Other smaller groups or individual properties may be identified which vary from the norm. Overrides to the cost value of the individual property or of the small groups will be applied, if warranted.

### **Income Models**

The income approach to value will be applied to those real properties which are typically viewed by market participants as “income producing”. The commercial appraiser will apply market derived pro forma assumptions to these properties either through an individual direct capitalization module within the property or through market derived income schedules to arrive at an income valuation.

The first step in the income approach is the estimation of market rent. This will be derived primarily from actual rent data furnished by property owners or lessees, budgeted rent data furnished by the property owners, asking rent data and local market study publications. Next, a projected vacancy and collection loss allowance will then be established from actual data furnished by property owners and 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 then subtracted from the potential gross rent estimate to yield an effective gross rent.

Next, any secondary income will be calculated based on market conditions. 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. It is then added to effective gross rent to arrive at an effective gross income.



Next, allowable expenses and expense ratio estimates will be calculated based on a study of the local market, with the assumption of prudent management. Operating expenses are classified as typical operating expenses associated with a specific category of property. Different operating expense ratios are developed for different types of commercial property based on use. Typical expenses include management, utilities, property insurance, property taxes, repairs, maintenance, etc. Expenses can be expressed as a lump sum, a rate per square foot, or a ratio percentage that represents total expenses divided by effective gross income. Another form of allowable expense is the replacement of short-lived items requiring expenditures of large lump sums. When these capital expenditures are analyzed, they will be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses are known as reserves for replacements. Subtracting the allowable expenses from the effective gross income yields an estimate of net operating income.

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 cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analysis, 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 financial reports and publications. Also, real estate publications will be utilized as a source of overall capitalization rates and terminal capitalization rates.

Next, the estimated net operating income (NOI) is divided by the selected overall capitalization rate or the “loaded capitalization rate” (the overall capitalization rate plus the previous year tax rate), as appropriate. This calculation results in a market value estimate, at stabilized occupancy.

Next, the affect of extraordinary vacancy will be estimated by calculating the net present value (NPV) of rent loss, including the cost of leasing commissions and tenant improvements. The NPV will be calculated based on the anticipated period of time to bring the property to stabilized occupancy. Rent loss for extraordinary vacancy is lost rental income while a property is moving from its current occupancy toward stabilized occupancy. Additionally, if applicable, the affect of rent concessions will be estimated by calculating the NPV of rent loss from rent concessions. The NPV will be calculated based on the length of time indicated by the market regarding the anticipated duration of the rent concessions. Rent loss due to concessions is a loss in rent that is the result of an inducement for a tenant to lease space in the property. This is usually in the form of free rent for a certain

period of time. The NPV of rent loss will be deducted from the market value estimated at stabilization.

Next, based on typical land to building ratios for the property type, the land value for excess land will be added to the market value estimate at stabilization. The result of this series of calculations in the direct capitalization model will be the indicated market value of the subject property.

After the income models and/or schedules are applied, the property's rates and multipliers can be derived from the results of the valuation. These rates include gross rent and income multipliers, and others. Rates and multipliers 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 an analysis of the market. The appraisers will then divide the property types into subsets based on shared common influences of value. The income approach derived values and rates within these groups will be compared to the results of sales ratio studies, sales comparison grids, cost characteristics, and/or other analyses and the income schedules and/or assumptions can be calibrated based on these studies.

### **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 parcels on the appraisal roll. As previously discussed in the Data Collection section of this plan, pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year in order to obtain relevant information which can be used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the Cost Approach, rates and multipliers used in the Income Approach, and as a direct comparison in the Sales Comparison Approach. Improved sales are also used in ratio studies, which afford the appraiser an excellent means of judging the present level and uniformity of appraised values.

## **SPECIAL APPRAISAL PROVISIONS**

### **Special Appraisal Provisions Concerning Highest and Best Use**

Section 23.01(d) of the Texas Property Tax Code states "The market value of a residence homestead shall be determined solely on the basis of the property's value as a residence homestead, regardless of whether the residential use of the property by the owner is considered to be the highest and best use of the property."

**Special Appraisal Provisions Concerning Appraised Value Lowered Under Subtitle F**  
Section 23.01(e) of the Texas Property Tax Code states “Notwithstanding any provision of this subchapter to the contrary, if the appraised value of property in a tax year is lowered under Subtitle F, the appraised value of the property as finally determined under that subtitle is considered to be the appraised value of the property for that tax year. In the following tax year, the chief appraiser may not increase the appraised value of the property unless the increase by the chief appraiser is reasonably supported by substantial evidence when all of the reliable and probative evidence in the record is considered as a whole.”

### **Exemptions**

The Texas Property Tax Code provides for an exemption from taxation for commercial properties which fulfill certain requirements as listed in Chapter 11, Subchapter B.

### **Abatements**

The Texas Property Tax Code also provides for a local agreement between a taxpayer and a taxing unit that may abate all or part of real property, generally commercial property, and/or tangible business personal property, from taxation.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

After the appraisal roll has been certified in late July and the next year’s level has been opened in PACS the management will meet with appraisal staff to review the prior years’ ARB hearings to determine which property types or market areas might require increased inspections, additional data, or adjustments to the District’s valuation methods. Tools utilized by individual commercial appraisers during field work will include, but are not limited to, the following sources or types:

- Appraisal Review Board Records,
- taxing jurisdiction records or information (permits, plans, zoning, etc),
- physical inspection records,
- deed records,
- cadastral maps, aerial photography, *Pictometry*, GIS, etc,
- documents, information or statements provided by the owner, lessee, property manager, tax agent or other advocate, or representative, or employee of the owner or lessee,
- fee appraisals,
- applications or forms filed with the District by or for the owner or lessee, previous owners or lessees, or potential owners or lessees, and

- any other public or private source pertaining to the market value of the properties being appraised.

### **Office Review**

After the physical inspection of assigned properties have been completed, the commercial appraiser will begin an office review of the results of the field review as well as information assembled from additional sources, including:

- sales of improved and vacant properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.),
- closing statements and other title documents,
- purchase agreements or contracts,
- annual income and expense statements,
- actual leases (lease abstracts, rent rolls, length of terms, expense structure, rent escalations, rent concessions, etc.),
- budgeted income and expenses statements,
- actual construction cost data (construction contracts, AIA documents, etc.),
- asking rents (commissions, tenant finish allowances, length of terms, expense structure, etc.),
- market data publications and informational data bases which provide information regarding specific properties as well as statistical support for market trends,
- fee appraisals,
- taxing jurisdiction records or information (permits, plans, zoning, etc.), and
- any other public or private source pertaining to the market value of the properties being appraised.

### **Commercial Appraisal Manual**

The primary manual pertinent to data collection and documentation is the Commercial Appraisal Manual. This manual provides a uniform system of itemizing the multitude of components comprising improved properties. Commercial properties located within the District's boundaries will be coded according to this manual and the approaches to value will be structured and calibrated based on this coding system.

## **PERFORMANCE TESTS**

### **Sales Ratio Studies**

Sales ratio studies are an integral part of establishing equitable and accurate market value estimates and ultimately assessments for the taxing jurisdictions. The primary uses of sales ratio studies include the determination of a need for general reappraisal, prioritizing

selected groups of property types for reappraisal, identification of potential problems with appraisal procedures, assisting in market analysis and to calibrate models used to derive appraised values during the reappraisal. Sales ratios will be generated by use type to allow appraisers to review general market trends in their area of responsibility. In many cases, field reviews may be conducted to insure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics.

### **Comparative Appraisal Analysis**

The commercial appraiser will perform an average unit value comparison in addition to a traditional ratio study. These studies are performed on commercially classed properties by property use type and are conducted on substrata such as building class and within various economic areas. In this way, overall appraisal performance is evaluated geographically and by specific property type.

### **Equal and Uniform Analysis**

In addition to the Sales Ratio Studies named above, utilizing guidance from the Texas Property Tax Code, Sections 23.01 & 41.43(b)(3), the District's commercial appraisers and commercial management team will employ the following analysis to test the uniformity of appraisals, by property category, property use property class and market area, as deemed appropriate.

- Comparison Cost Approach Analysis
- Comparison Appraisal Approach Analysis (substituting market appraised value for Sales price)
  - Comparison Grid adjustment factors are based on Multiple Linear Regression coefficients.
- Income Approach Analysis
  - Income Grid NOI adjustment factor is based on a Simple Linear Regression coefficient.
- Reconciled Analysis
  - Reconciled weight of Comparison Appraisal Approach and Income Approach based on RSQ and Adjusted RSQ, from their Regression analysis.

As appropriate, equity analysis will continue during informal meetings with property owners, during the preparation of evidence for ARB hearings and during post-certification remedies.

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# **Business Personal Property Valuation Process**

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## **INTRODUCTION**

### **Scope of Responsibility**

The Business Personal Property Department (BPP) of the Collin Central Appraisal District is responsible for developing fair and uniform market values for business personal property accounts. There are four different account types appraised: (1) business personal property, (2) leased assets at multiple locations, (3) commercial aircraft, and (4) utility communications and railroad properties.

**Personnel** – The BPP staff consists of a director, 6 staff appraisers and support staff.

**Data** – A common set of data characteristics for each account in the District are collected by appraisers in the field, by phone, and other pertinent sources and are entered into PACS by both the appraiser and support staff. These assigned property characteristics are used to assist the appraisal staff in determining market value.

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

### **SIC Code Analysis**

Four-digit numeric codes, called Standard Industrial Classification (SIC) codes, are used as the basis for classification and valuation of business personal property accounts. The SIC code classification is used in order to group business types that have similar property characteristics. CCAD has implemented property codes to further define and delineate similar business types within an SIC code.

SIC code identification and delineation is the cornerstone of the business personal property valuation system in the District. All of the analysis work performed in association with the valuation process is SIC code specific. SIC codes are delineated based on observable aspects of like properties and are periodically reviewed to determine if further delineation is warranted.

### **Highest and Best Use Analysis**

The highest and best use of property is the most 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**

Personal property data collection procedures are produced for all appraisers involved in the appraisal and valuation of personal property. Procedures are reviewed and revised to meet the changing requirements of field data collection. Business Personal Property appraisers annually appraise all businesses through various discovery means and resources as detailed below.

### **Business Personal Property Account**

District appraisers collect new data via an annual route book field check. Various discovery publications such as business journals, Texas Department of Transportation commercially registered vehicle listing, sales tax permit listings, and local building permits are also used as sources of data. Newspapers, business publications, business owners, and District residents provide discovery information and other useful facts related to discovery and valuation.

### **Leased Assets at Multiple Location Accounts**

The primary source of discovery for these accounts is owner filed renditions submitted in either hard copy or electronic format. On-site inspections and the renditions of lessees may be used to supplement this information.

### **Commercial and Business Aircraft**

Valuation procedures for commercial and business aircraft include information developed from local airport managers, reference material found in the "Aircraft Blue Book", owner's renditions and, regarding aircraft allocation, the Bureau of Transportation Statistics website.

### **Special Inventory**

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 used for discovery and valuation of special inventory accounts. Copies of annual declarations are maintained by CCAD. Alternate discovery methods may sometimes be used as described in the Business Personal Property Account section.

## **VALUATION AND STATISTICAL ANALYSIS (Model Calibration)**

### **Cost Schedules**

CCAD Business Personal Property appraisers utilize cost schedules according to Standard

Industrial Codes. Cost schedules are analyzed from property owner renditions, Settlement and Waiver of Protest documentation, Appraisal Review Board (ARB) hearing evidence, Texas Comptroller schedules, and published guides. Schedules are reviewed to reflect changing market conditions, if necessary. The schedules are typically in a price per square foot format. Some SIC codes are in an alternate price per unit format.

### **Statistical Analysis**

Summary statistics such as median, weighted mean and standard deviation provide appraisers analytical tools by which to determine both the level and uniformity of appraised value by SIC code. Review of standard deviation can distinguish appraisal uniformity within SIC codes.

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

The District'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 CCAD developed valuation models. The trending factors used by CCAD to develop RCN are based on published valuation guides. The percent good depreciation factors used by CCAD are also based on published valuation guides. Index and percent good depreciation factors are used to develop present value factors (PVF), by year of acquisition, as follows:

$$\text{PVF} = \text{INDEX FACTOR} \times \text{PERCENT GOOD FACTOR}$$

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

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

### **Computer Assisted Personal Property Appraisal**

The objective of the valuation models utilized is to analyze and adjust existing SIC models or to develop new models as needed. Valuation models are refined using actual original cost data to derive the replacement cost new (RCN) per square foot for specific categories of assets. The RCN is depreciated by the estimated age using the depreciation table applicable each year.

The process of data sampling requires the SIC codes being prioritized and data being compiled for review. Individual accounts will be selected as a sample to be field checked. The sample will be checked with on-site inspections and reviewed for accuracy of SIC code, square footage and original cost data. Models will be adjusted and tested against the prior year's data. These model values may be used to estimate the value of new accounts



for which no property owner's rendition is filed. They also establish parameters for testing the valuation of property for which prior years' data exist or for which current year rendered information is available.

### **Leased Assets at Multiple Location Accounts**

Leased and multi-location assets are valued using the depreciation schedules mentioned above. If the asset to be valued in this category is a vehicle, then NADA published book values may be used.

### **Commercial and Business Aircraft**

Aircraft valuation is accomplished by referencing the Aircraft Blue Book Price Guide (Winter Edition), Airpac Plane Base and the Vref Aircraft Value Reference. The Texas Property Tax Code has a specific methodology for the valuation and/or allocation of all aircraft.

### **Special Inventory**

The Texas Property Tax Code provides a specific methodology for valuing this category of property. 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, similar businesses that have filed declarations are identified and compared, with appropriate adjustments, to the subject property to establish an estimated market value.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Business Personal Property Account**

Annually, accounts in need of specific review are identified based on a variety of conditions. Property owner renditions, accounts with field or other data changes, accounts with prior ARB hearings activity, newly established business accounts, and SIC cost table changes are all considered. These accounts are identified and reappraised in the next appraisal cycle.

### **Leased Assets at Multiple Location Accounts**

Leased asset accounts that have a high volume of vehicles or other assets are typically loaded programmatically if reported by the property owner electronically. Electronic renditions either emailed or on diskette, may require reformatting before they can be worked for value input. Accounts that render by hard copy are data entered manually. After proofing and data entry, reports are generated and reviewed by the assigned support staff. Once proofed, necessary corrections are made, appraiser approval is granted, and

the account is sent a Notice of Appraised Value which includes a breakdown of each leased asset by jurisdiction.

### **Commercial and Business Aircraft**

The commercial and business aircraft accounts are simultaneously reviewed and valued with rendered data and third party market value data.

### **Special Inventory**

Special inventory accounts without a current declaration on file are contacted to advise them of their legal filing requirements and to provide CCAD with the most current valuation and review data available.

## **PERFORMANCE TESTS**

### **Ratio Studies**

Biennially the Property Tax Division of the State Comptroller's Office conducts a Property Value Study (PVS) to measure appraisal district valuation performance. 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 CCAD's personal property values and ratios are determined.

## **LIMITING CONDITIONS**

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

1. The appraisals are 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 property appraised are performed as staff resources and time allows. Some interior inspections of property appraised are performed at the request of the property owner or as requested by the District for clarification purposes and to correct property descriptions.
3. Validation of sales transactions is attempted through questionnaires to buyers, telephone survey and field review. In the absence of such confirmation, sales data obtained from vendors is considered reliable.
4. Appendix B has a list of staff providing significant assistance to the person signing this certification.

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### **Certification Statement:**

"I, Bo Daffin, Chief Appraiser for Collin Central Appraisal District, solemnly swear that I have made or caused to be made a reappraisal plan for Collin Central Appraisal District for the 2019-2020 tax years as required by law."



Bo Daffin, RPA, CCA, CTA  
Chief Appraiser

Date Adopted: September 13, 2018  
Resolution #: 2018-48

## Appendix A.

### COLLIN CENTRAL APPRAISAL DISTRICT MASS APPRAISAL FLOWCHART

DEFINE THE PROBLEM
<ul style="list-style-type: none"><li>- PREDEFINED BY LEGISLATURE, VIA TAX CODE</li><li>- LOCATE AND LIST ALL TAXABLE PROPERTY</li><li>- APPRAISE AT JANUARY 1ST MARKET VALUE</li><li>- APPRAISALS MUST BE EQUAL AND UNIFORM</li><li>- ADMINISTER EXEMPTIONS AND SPECIAL APPRAISALS</li></ul>



PLAN THE APPRAISAL PROJECT
<ul style="list-style-type: none"><li>- TWO-YEAR APPRAISAL PLAN ADOPTION (EVEN NUMBER YEARS)</li><li>- IDENTIFY &amp; DEVELOP DATA SOURCES</li><li>- IDENTIFY NEIGHBORHOODS AND/OR PROPERTIES FOR FIELD INSPECTION</li><li>- COMPLETE STAFF ASSIGNMENTS AND CONDUCT PROJECT MEETINGS</li><li>- MODEL DEVELOPMENT AND CALIBRATION</li><li>- POST CERTIFICATION ANALYSIS FOR REVIEW OF CURRENT PROJECT AND TO PLAN NEXT YEAR'S APPRAISAL PROJECT</li></ul>



DATA COLLECTION		
<u>MARKET DATA</u>	<u>PROPERTY</u>	<u>COMPARATIVE</u>
REGION	CURRENT USE	BLDG. COST
CITY	SITE	SALES
NEIGHBORHOOD	ZONING	RENT & LEASE RATES
COMM MKT AREAS	IMPROVEMENTS	OPERATING EXPENSES
SUBDIVISION	LOCATION INFLUENCES	LIST PRICES
	SPECIAL USE	TRENDS



### DATA ANALYSIS

- CONSIDERATION OF MOST APPROPRIATE APPRAISAL METHOD
- GENERAL MARKET ANALYSIS
- NEIGHBORHOOD ANALYSIS
- INDIVIDUAL PROPERTY ANALYSIS
  - \* HIGHEST AND BEST USE
  - \* SITE, INCLUDING LOCATIONAL FACTORS
  - \* PHYSICAL CHARACTERISTICS
  - \* QUALITY AND CONDITION
  - \* FINANCIAL CHARACTERISTICS (INCOME ANALYSIS), AS APPROPRIATE



### RECONCILIATION

#### **COST APPROACH**

MARSHALL SWIFT  
AIA DOCUMENTS  
SITE

#### **DIRECT SALES APPROACH**

COMPARABLE SALES  
NBHD RATIO STUDIES  
REO & FORECLOSURE TRENDS

#### **INCOME APPROACH**

DIRECT CAP  
LEASE-UP MODEL  
INCOME MULTIPLIER

SELECT APPROPRIATE METHOD(S) BASED ON PROPERTY TYPE OR CATEGORY



### APPRAISED VALUE NOTIFICATION & PRESENTATION

- MAIL APPRAISAL NOTICES TO PROPERTY OWNERS (25.19 NOTICE)
- INFORMAL DISCUSSION OF APPRAISAL WITH PROPERTY OWNER
- PREPARE FORMAL EVIDENCE & MAKE EVIDENCE AVAILABLE TO OWNER
- PRESENT EVIDENCE & TESTIMONY AT ARB PROTEST HEARINGS



### CERTIFIED ROLL ADMINISTRATION

- CERTIFY APPRAISAL ROLL TO TAXING UNIT'S ASSESSOR/COLLECTOR
- REVIEW POST CERTIFICATION MOTIONS AND PROTESTS WITH OWNERS
- PRESENT EVIDENCE & TESTIMONY AT SUPPLEMENTAL ARB HEARINGS
- PRESENT EVIDENCE & TESTIMONY AT ARBITRATION HEARINGS
- PRESENT EVIDENCE & TESTIMONY DURING LITIGATION
- PROVIDE CERTIFIED ROLL DATA TO PUBLIC, VIA WEBSITE & FILE TRANSFERS
- PROCESS EXEMPTION APPLICATIONS ALLOWABLE AFTER ROLL CERTIFICATION
- CONTINUE FILE MAINTENANCE FOR OWNERSHIP & ADDRESS CHANGES

## **Appendix B. 2019-2020 Calendar of Key Events**

July 18-20, 2018	- Create next year property record layer and verification in CAMA system
July 30, 2018	- Appraisal field cycle begins for next appraisal year
August 1, 2018	- Deadline for Electronic Property Transaction Submission to PTAD (twice a year, February and August)
August 6, 2018	- Mail sold property questionnaires (weekly thereafter)
August 18, 2018	- Ag rollback notice date
August 18-22, 2018	- Drive discovery for 2019 appraisal project
August 22-25, 2018	- 2018 ARB hearings for properties remaining under review when the 2018 appraisal roll was certified
August 27, 2018	- BPP appraisers conduct field checks of non-rendered properties
September 1, 2018	- Deadline for Electronic Appraisal Roll Submission (EARS) to PTAD
September 1, 2018	- Alternate value study data for 2018 due to PTAD
September 8, 2018	- Begin commercial new construction inspections
September 13, 2018	- Board of Directors special meeting and public hearing on 2019-2020 Reappraisal Plan
September 15, 2018	- Deadline for Board of Directors to approve CCAD's 2019-2020 Reappraisal Plan
September 17, 2018	- BPP appraisers commence route book field checks
September 27, 2018	- Board of Directors regular meeting
October 9, 2018	- ARB hearings - supplemental

October 20, 2018	- Ag rollback notice date
October 25, 2018	- Board of Directors regular meeting
November 9-10, 2018	- ARB hearings – supplemental
December 6, 2018	- Board of Directors special meeting
December 8, 2018	- ARB hearings - supplemental
December 19-30, 2018	- Mark plats/field review sheets for percent complete.
January 1, 2019	- Assessment date (“as of date” for 2019 appraisals)
January 1, 2019	- Produce documentation for 2019 PTAD MAP review
January 4, 2019	- BPP staff sends multi-tenant letters
January 6, 2019	- 1 <sup>st</sup> mailing of homestead applications to new owners
January 9, 2019	- Drive mobile home parks to establish occupancy
January 9, 2019	- Mail agricultural re-file letters
January 9-13, 2019	- Conclude January 1 percent completes
January 19, 2019	- ARB hearings – supplemental
January 19, 2019	- Begin capture of Costar individual property profiles and market area rent/occupancy reports
January 21, 2019	- Mail BPP renditions with cover letter
January 24, 2019	- Board of Directors regular meeting
January 30, 2019	- Post capitalization rate for low income housing apartments on District’s website ( <a href="http://www.collincad.org">www.collincad.org</a> )
January 31, 2019	- Mail Freeport and abatement applications

February 1, 2019	- Receive PTAD PVS results
February 1, 2019	- Press release of: "Rendering Property", "Homestead Exemption", "Remedies" pamphlet, "Tax Deferral for Elderly" & "Tax Deferral on Appreciating Residence Homestead"
February 1, 2019	- Deadline for Electronic Property Transaction Submission to PTAD (twice a year, February and August)
February 1, 2019	- Deadline to complete residential field work
February 2-3, 2019	- Residential neighborhood profiling and analysis
February 3, 2019	- Initial review of Marshall & Swift cost tables & cost trends
February 14, 2019	- 2 <sup>nd</sup> mailing of homestead applications to new owners
February 27, 2019	- 2 <sup>nd</sup> mailing of Ag refile letters
February 28, 2019	- Board of Directors regular meeting
March 1, 2019	- BPP appraisers complete all field rechecks
March 3, 2019	- Deadline to complete commercial property inspections
March 3, 2019	- Commercial appraisers complete all field rechecks & data entry
March 9, 2019	- ARB hearings - supplemental
March 10, 2019	- Deadline for 2018 PTAD PVS appeals
March 10, 2019	- Commercial appraiser's final review/input of cost schedules from Marshall & Swift
March 11-15, 2019	- Residential appraisers complete all field rechecks, sales studies, and appraisal modifiers; final updating of profiles & NBHD adjustments



March 13-April 6, 2019	- Commercial appraisers complete analysis of commercial properties and final edits for appraisal notices
March 18-22, 2019	- Begin detailed review of various edits to prepare for system lock
March 20, 2019	- Ag rollback notice date
March 27, 2019	- All real estate changes in computer – system locked
March 28, 2019	- Board of Directors regular meeting
April 1, 2019	- BPP rendition deadline and requests for BPP rendition Extension
April 9-12, 2019	- Staff training (Residential)
April 15, 2019	- Mail real estate Notices of Appraised Value
April 15, 2019	- Begin informal meetings with property owners and property tax agents regarding 2019 25.19 Notices of Appraised Value
April 18, 2019	- Extended business hours until 7:00pm all Thursday's during month of informal hearings
April 25, 2019	- Board of Directors 2020 Budget Workshop and Board of Directors meeting
April 30, 2019	- Deadline for all exemption and special appraisal applications including ag-use, Freeport and pollution control
May 1, 2019	- Quarter page ad: "Protest Procedures"
May 1, 2019	- Deadline for filing BPP renditions having timely extensions
May 1, 2019	- First group of BPP data entry and edits completed
May 8, 2019	- Mail first batch of BPP Notices of Appraised Value
May 15, 2019	- Deadline for timely filing protest for real estate, with notice

date of April 15<sup>th</sup>

- |                       |                                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| May 16, 2019          | - Chief Appraiser submits real estate appraisal records to ARB                                                                         |
| May 16, 2019          | - ARB hearings                                                                                                                         |
| May 20 - July 3, 2019 | - All panels of ARB meet to hear protests                                                                                              |
| May 23, 2019          | - Board of Directors 2018 Budget Workshop and Board of Directors meeting                                                               |
| May 24, 2019          | - Remainder of BPP data entry and edits completed for last Mailing                                                                     |
| May 31, 2019          | - Mail last batch of BPP Notices of Appraised Value including rendition penalty notifications                                          |
| June 1, 2019          | - Quarter page ad: "Budget Hearing" (10 days before hearing)                                                                           |
| June 7, 2019          | - Deadline for timely filing protests for BPP, with notice date of May 8 <sup>th</sup>                                                 |
| June 8, 2019          | - Chief Appraiser submits BPP appraisal records to ARB                                                                                 |
| June 17, 2019         | - Late Freeport application deadline                                                                                                   |
| June 19, 2019         | - Mail ag refile letters with no previous response                                                                                     |
| June 22, 2019         | - Provide taxing entities with a copy of the 2020 Proposed budget; place a copy at CCAD customer service counter for public inspection |
| June 27, 2019         | - Public hearing on 2018 Proposed Budget and Board of Directors meeting                                                                |
| July 1, 2019          | - Deadline for timely filing protests for BPP, with notice date of May 31 <sup>st</sup>                                                |
| July 10, 2019         | - ARB approval of appraisal records                                                                                                    |

July 22-26, 2019	- Create next year property record layer and verification in CAMA system
July 25, 2019	- Chief Appraiser certifies appraisal rolls to taxing units
July 29, 2019	- Appraisal field cycle begins for next appraisal year
August 1, 2019	- Deadline for Electronic Property Transaction Submission to PTAD (twice a year, February and August)
August 5, 2019	- Mail sold property questionnaires (weekly thereafter)
August 19-31, 2019	- Drive discovery for 2020 appraisal project
August 21, 2019	- Ag rollback notice date
August 21-24, 2019	- 2019 ARB hearings for properties remaining under review when the 2019 appraisal roll was certified
August 22, 2019	- Board of Directors regular combined July & August meeting
August 26, 2019	- BPP appraisers conduct field checks of non-rendered properties
September 1, 2019	- Deadline for Electronic Appraisal Roll Submission (EARS) to PTAD
September 7, 2019	- Begin commercial new construction inspections
September 21, 2019	- BPP appraisers commence route book field checks
September 26, 2019	- Board of Directors regular meeting
October 15, 2019	- Ag rollback notice date
October 19, 2019	- ARB hearings – supplemental
October 24, 2019	- Board of Directors regular meeting

December 5, 2019	- Board of Directors special meeting
December 7, 2019	- ARB hearings – supplemental
December 19-30, 2019	- Mark plats/field review sheets for percent complete.
January 1, 2020	- Assessment date (“as of date” for 2018 appraisals)
January 3, 2020	- 1 <sup>st</sup> mailing of homestead applications to new owners
January 3, 2020	- BPP staff sends multi-tenant letters
January 8, 2020	- Drive mobile home parks to establish occupancy
January 8, 2020	- Mail Ag re-file letters
January 8-12, 2020	- Conclude January 1 percent completes
January 15, 2020	- Begin capture of Costar individual property profiles and market area rent/occupancy reports
January 18, 2020	- ARB hearings – supplemental
January 22, 2020	- Print and mail BPP renditions with cover letter
January 23, 2020	- Board of Directors regular meeting
January 31, 2020	- Post capitalization rate for low income housing apartments on District’s website ( <a href="http://www.collincad.org">www.collincad.org</a> )
January 31, 2020	- Mail Freeport and abatement applications
January 31, 2020	- Deadline to complete residential field work
February 1, 2020	- Deadline for Electronic Property Transaction Submission to PTAD (twice a year, February and August)
February 1, 2020	- Press release of: “Rendering Property”, “Homestead Exemption”, “Remedies” pamphlet, “Tax Deferral for Elderly” & “Tax Deferral on Appreciating Residence Homestead”

February 1-2, 2020	- Residential appraisers complete profiling properties
February 3, 2020	- Initial review of Marshall & Swift cost tables & cost trends
February 16, 2020	- 2 <sup>nd</sup> mailing of homestead applications to new owners
February 27, 2020	- Board of Directors regular meeting
March 2, 2020	- Deadline to complete commercial property inspections
March 2, 2020	- BPP appraisers complete all field rechecks
March 2, 2020	- Commercial appraiser's final review/input of cost schedules from Marshall & Swift
March 9, 2020	- Commercial appraisers complete all field rechecks & data Entry
March 9-13, 2020	- Residential appraisers complete all field rechecks, sales studies, and appraisal modifiers; final updating of profiles & NBHD adjustments
March 16-24, 2020	- Begin detailed review of various edits to prepare for system lock
March 19, 2020	- ARB hearings – supplemental
March 19, 2020	- Ag rollback notice date
March 25, 2020	- All real estate changes in computer – system locked
March 26, 2020	- Board of Directors regular meeting
April 1, 2020	- BPP rendition deadline and requests for BPP rendition Extension
April 6, 2020	- Commercial appraisers complete analysis of commercial
April 6-10, 2020	- Staff training (Residential)

April 15, 2020	- Mail real estate Notices of Appraised Value
April 15, 2020	- Begin informal meetings with property owners and property tax agents regarding 2018 25.19 Notices of Appraised Value
April 16, 2020	- Extended business hours until 7:00pm all Thursday's during month of informal hearings
April 23, 2020	- Board of Directors 2021 Budget Workshop and Board of Directors meeting
April 30, 2020	- Deadline for all exemption and special appraisal applications including, ag-use, Freeport and pollution control
May 1, 2020	- Quarter page ad: "Protest Procedures"
May 1, 2020	- Deadline for filing BPP renditions having timely extensions
May 1, 2020	- First group of BPP data entry and edits completed
May 8, 2020	- Mail first batch of BPP Notices of Appraised Value
May 15, 2020	- Deadline for timely filing protest for real estate, with notice date of April 15 <sup>th</sup>
May 16, 2020	- Chief Appraiser submits real estate appraisal records to ARB
May 22, 2020	- Remainder of BPP data entry and edits completed for last mailing
May 28, 2020	- Board of Directors 2021 Budget Workshop and Board of Directors meeting
May 29, 2020	- Mail last batch of BPP Notices of Appraised Value including rendition penalty notifications
June 1, 2020	- Quarter page ad: "Budget Hearing" (10 days before hearing)
June 5 - July 20, 2020	- All panels of ARB meet to hear protests

June 8, 2020	- Deadline for timely filing protests for BPP, with notice date of May 8 <sup>th</sup>
June 9, 2020	- Chief Appraiser submits BPP appraisal records to ARB
June 16, 2020	- Mail ag refile letters with no previous response
June 17, 2020	- Late Freeport application deadline
June 25, 2020	- Public hearing on 2021 Proposed Budget and Board of Directors meeting
June 28, 2020	- Provide taxing entities with a copy of the 2021 Proposed Budget; place a copy at CCAD customer service counter for public inspection
June 29, 2020	- Deadline for timely filing protest for BPP, with notice date of May 29 <sup>th</sup>
July 10, 2020	- ARB approval of appraisal records
July 25, 2020	- Chief Appraiser certifies appraisal rolls to taxing units
August 1, 2020	- Deadline for Electronic Property Transaction Submission to PTAD (twice a year, February and August)
August 20, 2020	- Ag rollback notice date
August 20-23, 2020	- ARB hearings - supplemental
August 27, 2020	- Board of Directors regular combined July & August meeting
September 1, 2020	- Deadline for Electronic Appraisal Roll Submission (EARS) to PTAD
September 1, 2020	- Alternate value study data for 2020 due to PTAD

## Appendix C. Key Personnel in Reappraisal Plan Implementation

Department	Employee	Position
Administration	Bo Daffin	Chief Appraiser/Executive Director
	Robert Waldrop	Deputy Chief Appraiser, Business Operations
	Kelly Lintner	Deputy Chief Appraiser, Appraisal Operations
Appraisal - AE&L	Brian Swanson	Abatement, Exemption & Litigation Manager
Appraisal - BPP	Brad Richards	Director of BPP Appraisal
Appraisal - Commercial	Marty Wright	Director Commercial Appraisal
Appraisal - Land	Dana Wilson	Director of Land Appraisal
Appraisal - Residential	Phil Greaux	Director of Residential Appraisal
	Eric Grusendorf	Residential Manager
	Kaleb Blount	Senior Appraiser, Residential
	Julie Covington	Senior Appraiser, Residential
	Terry Hamilton	Senior Appraiser, Residential
	Kim Hancock	Senior Appraiser, Residential
	James Randle	Senior Appraiser, Residential
	Cody Sanderson	Senior Appraiser, Residential
ARB	Stephanie Bernal	Director of ARB
Customer Service	Michele Lake	Director of Customer Service
	Laura Garza	Customer Service Manager
GIS/Mapping/Records	Elliot Bensed	Director of GIS/Mapping/Records
	Jamie Worth	GIS/Mapping Support Manager
IST	Ryan Matthews	Director of IST
	Jason Harris	Systems Manager
	Shane Cheek	CAMA Software Manager
	Chris Mulkey	Web Master/System Specialist



Support Services

Paula Bensead  
Wendy Gilliland

Director of Support Services  
Support Services Manager