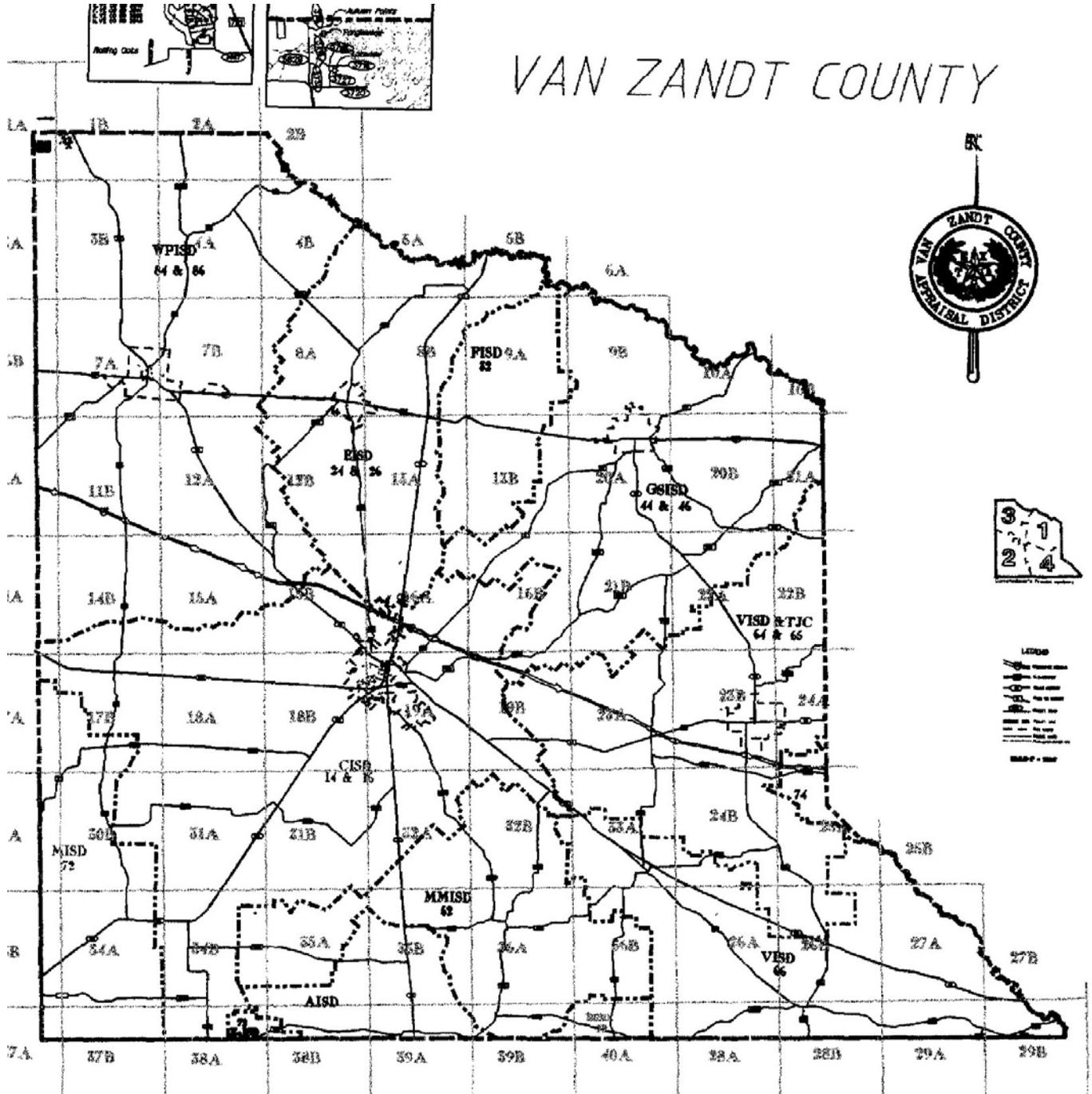


# Reappraisal Plan for Van Zandt County Appraisal District Tax Years 2019 & 2020



VAN ZANDT COUNTY APPRAISAL DISTRICT  
2019 – 2020 REAPPRAISAL PLAN

**INTRODUCTION**

**General Overview of Tax Code Requirement**

Passage of Senate Bill 1652 in 2005 amended the Property Tax Code to require each Appraisal District to prepare a biennial reappraisal plan. The following details the Tax Code requirements:

**The Written Plan**

Section 6.05, Property Tax Code, 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 Property Tax Code, 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 6.06(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 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 Van Zandt County Appraisal 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 within the Van Zandt County Appraisal District.

The Van Zandt County Appraisal District (VZCAD) 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 Van Zandt County, constitutes the district's governing body. The Chief Appraiser, appointed by the Board of Directors, is the Chief Administrator and Executive Director of the appraisal district.

The Van Zandt County Appraisal District is responsible for local property tax appraisal and exemption administration for 24 taxing units in the county. Each taxing unit, such as the county, a city, school district, municipal utility district, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public 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. They are generally based on each property's worth of market value. VZCAD also 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 Property Tax Code, 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 other.

The Code defines special appraisal provision for the valuation of residential homestead property (Sec.23.23), productivity (Sec. 23.41), real property inventory, (Sec. 23.12), dealer inventory (Sec. 23.121, 23.124, 23.1241, and 23.127), nominal (Sec. 23.18) or restricted use properties (Sec. 23.183) and allocation of interstate property (Sec. 23.03).

The Texas Property Tax Code, under Sec. 25.18, requires each appraisal office to implement a plan to update appraised values for real property at least once every three years. The district's current policy is to conduct a general reappraisal of real and business personal property value every year, meaning that 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 various computer-assisted mass appraisal (CAMA) programs, and generally recognized methods and techniques, registered and trained appraisers compare the subject property information with the data for similar properties, and with recent market data. The district adheres to the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable. Chapter 23 of the Texas Property Tax Code contains statutes dealing with appraisal methods and procedures. Section 23.01 of this chapter was amended in 1977 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. In cases where the appraisal district contracts for professional valuation services, the contract that is entered into by each appraisal firm requires adherence to similar professional standards.

## **OVERVIEW OF DISTRICT'S OPERATIONS**

### **Personal Resources**

The Office of the Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling of district operations. Its 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 mailing services.

The Appraisal Department is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, and business personal property. The district's appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with the Texas Department of Licensing and Regulation.

The Collection Department is responsible for the Assessment and Collections Duties. These functions include the calculation of the Effective Tax Rates, preparation of the Tax Rolls, the mailing and

collection of the Tax Bills along with the disbursements of the collected Levy. The Collection Department also works closely with the delinquent tax attorneys in law-suits, judgments, and sales of foreclosed properties.

The Data Processing Department is responsible for Data Entry as well as Data Retrieval. Its functions include overseeing of the preparation of the Tax Rolls, Notices of Appraised Value, data entry from the Appraisal and Collections Departments, as well as coordinating with the software provider for the state required reports. The Data Processing Department also facilitates response to public open records requests as well as providing data to assist the delinquent tax attorneys.

The GIS Department is responsible for the development and maintenance of the district's maps along with maintaining the district's ownership records, and assists the public with accessing the district's records and mapping data. This department works with the county clerk and property owners to process deed changes, property account splits, and combination of property accounts.

The appraisal district staff consists of 17 employees with the following classifications:

- 2 - Administration Department (Executive level administration)
- 4 - Collection Department (Assessment & Collection functions)
- 8 - Appraisal Department (Appraisal related functions)
- 3 – Support Services Department (GIS/Mapping, Deeds, Public Access, Data Processing)

### **Staff Education and Training**

All appraisal district employees that perform appraisal work are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with the Texas Department of Licensing and Regulation (TDLR). This board 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 and 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 two-year period after certification, appraisers must complete a minimum of 30 hours of continuing education. Failure to meet these minimum standards will result in the removal of the employee from an appraiser position.

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 in the 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.

**2019 – 2020 Tax Years  
Calendar of Operations**

MONTH & YEAR	DAY	PLAN ITEM
July, 2018	1	<ul style="list-style-type: none"> <li>• Begin analysis of rural tract sales</li> <li>• Begin analysis of residential and commercial schedule</li> <li>• Begin constructing 2019 Appraisal Agenda</li> <li>• Personal Property appraiser to prepare for BPP protest hearings</li> </ul>
July, 2018	10-19	<ul style="list-style-type: none"> <li>• Complete 2018 Business Personal Property ARB Hearings</li> <li>• Appraisal staff meeting – assign areas of responsibilities &amp; outline current year’s appraisal goals</li> </ul>
July, 2018	16-31	<ul style="list-style-type: none"> <li>• Supply appraisers with all cards, recalls, permits, sales data, and mechanics liens to date</li> <li>• Appraisers to begin organizing all supplied cards, recalls, permits and mechanics liens to date</li> </ul>
July, 2018	20	<ul style="list-style-type: none"> <li>• Date ARB must approve appraisal records, but may not do so if more than 5 percent of the total appraised value remains under protest. The Board of Directors of a CAD with a population of 1 million or more may postpone the deadline to August 30 or increase the threshold percentage from 5 to 10 percent of the appraised value of properties not under protest</li> </ul>
July, 2018	25	<ul style="list-style-type: none"> <li>• Last day Chief Appraiser to certify roll to each taxing unit</li> </ul>
August, 2018	1	<ul style="list-style-type: none"> <li>• Ag appraiser to begin mailing audit reapplication request and letters to new owners of ag properties (continues monthly through January)</li> <li>• Ag appraiser to begin agricultural on-site inspections for recalled properties</li> <li>• Chief Appraiser and Senior Appraiser to run sales ratio analysis to identify specific areas, projects, and model schedules for review by appraisal staff</li> </ul>
August, 2018	1-15	<ul style="list-style-type: none"> <li>• All appraisers to continue preparing all items necessary to begin 2019 field work</li> </ul>
August, 2018	15-31	<ul style="list-style-type: none"> <li>• All appraisers to review sales, permits, mechanics liens, and aerial data to select any necessary additional properties for on-site review</li> </ul>
September, 2018	1	<ul style="list-style-type: none"> <li>• Chief Appraiser to assign monthly sales review and analysis</li> <li>• All appraisers to begin field assignments</li> </ul>
October, 2018	1	<ul style="list-style-type: none"> <li>• 2018 Tax bills mailed (or as soon thereafter as practicable)</li> </ul>
November, 2018	1	<ul style="list-style-type: none"> <li>• Chief Appraiser to review the progress of appraisal assignments and run follow-up sales ratio analysis</li> <li>• Chief Appraiser to hold meeting with appraisers to discuss and modify assignments if necessary</li> </ul>
December, 2018	1	<ul style="list-style-type: none"> <li>• Ag Appraiser to send Wildlife Annual Report requests</li> </ul>
January, 2019	1	<ul style="list-style-type: none"> <li>• Appraisal and exemption qualification date</li> <li>• Rendition period begins</li> </ul>

		<ul style="list-style-type: none"> <li>• BPP Appraiser to work only Business Personal Property related tasks and renditions</li> <li>• Data Entry Director to run secondary recall list for residential appraisers</li> <li>• Chief Appraiser to review the progress of appraisal assignments</li> </ul>
January, 2019	2	<ul style="list-style-type: none"> <li>• Ag Appraiser will begin agriculture application review process and agricultural onsite second review recall list</li> </ul>
February, 2019	1	<ul style="list-style-type: none"> <li>• Delinquency date for collections</li> </ul>
February, 2019	15	<ul style="list-style-type: none"> <li>• All appraisers to have completed audit and recall field assignments</li> <li>• Begin year end analysis of prior 12-18 months of all market data (e.g. sales, income, expense) compiled to date</li> </ul>
February, 2019	15-28	<ul style="list-style-type: none"> <li>• Residential and commercial appraisers to wrap-up any and all recalls, locked gate letters and any other field work related tasks</li> <li>• Chief Appraiser, Senior Appraiser, and Commercial Appraiser to continue year end analysis of all market data for schedule calibration and market area adjustments</li> </ul>
March, 2019	1-22	<ul style="list-style-type: none"> <li>• Appraisers to use new Pictometry data (when available) for follow-up inspection of properties not accessible during field work</li> <li>• Chief Appraiser, Senior Appraiser, and Commercial Appraiser to continue year end analysis of all market data for schedule calibration and market area adjustments</li> </ul>
March, 2019	22	<ul style="list-style-type: none"> <li>• Last day for 2019 field work data entry to be submitted to Data Processing Director</li> </ul>
March, 2019	22-31	<ul style="list-style-type: none"> <li>• Residential and commercial appraisers to prepare for informal taxpayer protests and review CAMA sales and equity analysis tools</li> </ul>
April, 2019	1	<ul style="list-style-type: none"> <li>• Last day (or as soon as practicable thereafter) for the Chief Appraiser to mail notices of appraised value for single-family residence homestead properties</li> <li>• Ag appraiser to send certified 1-d-1 cancellation notices</li> <li>• Chief Appraiser to assign in-house appraiser(s) to audit Capitol Appraisal industrial real and personal property field work</li> </ul>
April, 2019	1	<ul style="list-style-type: none"> <li>• Last day for property owners to file renditions and property information reports unless they request a filing extension in writing</li> </ul>
April, 2019	15	<ul style="list-style-type: none"> <li>• Mail appraisal notices for remaining property types</li> <li>• Provide taxing entities with certified estimates of value</li> </ul>
April, 2019	30	<ul style="list-style-type: none"> <li>• Begin conducting informal protest meetings with taxpayers</li> <li>• Last day to file some exemption applications and 1-d-1 open space applications</li> </ul>
May, 2019	1	<ul style="list-style-type: none"> <li>• Last day for property owners to file renditions and property information reports if they requested an extension in writing</li> </ul>
May, 2019	15	<ul style="list-style-type: none"> <li>• Last day for property owners to file protest with ARB (or by 30<sup>th</sup> day after notice of appraised value is delivered, whichever is later)</li> </ul>
June, 2019	10-28	<ul style="list-style-type: none"> <li>• Conduct first sessions of 2019 Formal ARB Protest Hearings</li> </ul>
July, 2019	1	<ul style="list-style-type: none"> <li>• Begin analysis of appraisal schedules</li> <li>• Begin constructing the 2020 Appraisal Agenda</li> </ul>

July, 2019	8-19	<ul style="list-style-type: none"> <li>• Appraisal staff meeting – assign areas of responsibilities and outline current year’s appraisal goals</li> <li>• Conduct second session of 2019 Formal ARB Protest Hearings</li> </ul>
July, 2019	15-31	<ul style="list-style-type: none"> <li>• Supply appraisers with recalls, permits, sales, and mechanics liens to date</li> <li>• Appraisers to begin organizing recalls, permits and mechanics liens to date</li> </ul>
July, 2019	20	<ul style="list-style-type: none"> <li>• Date ARB must approve appraisal records, but may not do so if more than 5 percent of total appraised value remains under protest. The Board of Directors of the CAD with a population of 1 million or more may postpone the deadline to August 30<sup>th</sup> or increase the threshold percentage from 5 to 10 percent of the appraised value of properties not under protest.</li> </ul>
July, 2019	25	<ul style="list-style-type: none"> <li>• Last day the Chief Appraiser to certify roll to each taxing unit</li> </ul>
August, 2019	1	<ul style="list-style-type: none"> <li>• Ag appraiser to begin mailing audit reapplication request and letters to new owners of ag properties</li> <li>• Ag appraiser to begin agricultural on-site inspections for recalled properties</li> <li>• Chief Appraiser and Senior Appraiser to run sales ratio analysis to identify specific areas, projects, and model schedules for review by appraisal staff</li> </ul>
August, 2019	1-15	<ul style="list-style-type: none"> <li>• All appraisers to continue preparing all items necessary to begin 2020 field work</li> <li>• Appraisers to use Pictometry Change Analysis system to inspect and/or recall properties that are new, changed, or demolished.</li> </ul>
August, 2019	15-30	<ul style="list-style-type: none"> <li>• All appraisers to review sales, permits, mechanics liens, and aerial data to select any necessary additional properties for on-site review</li> <li>• Appraisers continue to use Pictometry Change Analysis system to inspect and/or recall properties that are new, changed, or demolished.</li> </ul>
September, 2019	1	<ul style="list-style-type: none"> <li>• Chief Appraiser to assign monthly sales review and analysis</li> <li>• All appraisers to begin field assignments</li> </ul>
October, 2019	1	<ul style="list-style-type: none"> <li>• 2019 Tax bills mailed (or as soon thereafter as practicable)</li> </ul>
November, 2019	1	<ul style="list-style-type: none"> <li>• Chief Appraiser to review the progress of appraisal assignments and run follow-up sales ratio analysis</li> <li>• Chief Appraiser to hold meeting with appraisers to discuss and modify assignments if necessary</li> </ul>
December, 2019	1	<ul style="list-style-type: none"> <li>• Ag Appraiser to send Wildlife Annual Report requests</li> </ul>
January, 2020	1	<ul style="list-style-type: none"> <li>• Appraisal and exemption qualification date</li> <li>• Rendition period begins</li> <li>• BPP Appraiser to work only Business Personal Property related tasks and renditions</li> <li>• Data Entry Director to run secondary recall list for residential appraisers</li> <li>• Chief Appraiser to review the progress of appraisal assignments</li> </ul>
January, 2020	2	<ul style="list-style-type: none"> <li>• Ag Appraiser will begin agriculture application review process and</li> </ul>

		agricultural onsite second review recall list
February, 2020	1	<ul style="list-style-type: none"> <li>• Delinquency date for collections</li> </ul>
February, 2020	14	<ul style="list-style-type: none"> <li>• All appraisers to have completed audit and recall field assignments</li> <li>• Begin year end analysis of prior 12-18 months of all market data (e.g. sales, income, expense) compiled to date</li> </ul>
February, 2020	17-28	<ul style="list-style-type: none"> <li>• Residential and commercial appraisers to wrap-up any and all recalls, locked gate letters and any other field work related tasks</li> <li>• Chief Appraiser, Senior Appraiser, and Commercial Appraiser to continue year end analysis of all market data for schedule calibration and market area adjustments</li> </ul>
March, 2020	2-20	<ul style="list-style-type: none"> <li>• Each appraiser to begin sales ratio analysis, review current sales data, and compile and analyze sales listings</li> </ul>
March, 2020	20	<ul style="list-style-type: none"> <li>• Last day for 2020 field work data entry to be submitted to Data Processing Director</li> </ul>
March, 2020	23-31	<ul style="list-style-type: none"> <li>• Residential and commercial appraisers to prepare for informal taxpayer protests and review CAMA sales and equity analysis tools</li> </ul>
April, 2020	1	<ul style="list-style-type: none"> <li>• Last day (or as soon as practicable thereafter) for the Chief Appraiser to mail notices of appraised value for single-family residence homestead properties</li> </ul>
April, 2020	1	<ul style="list-style-type: none"> <li>• Last day for property owners to file renditions and property information reports unless they request a filing extension in writing</li> </ul>
April, 2020	15	<ul style="list-style-type: none"> <li>• Mail appraisal notices for remaining property types</li> <li>• Provide taxing entities with certified estimates of value</li> </ul>
April, 2020	30	<ul style="list-style-type: none"> <li>• Last day to file some exemption applications and 1-d-1 open space applications</li> </ul>
May, 2020	1	<ul style="list-style-type: none"> <li>• Begin conducting informal protest meetings with taxpayers</li> </ul>
May, 2020	1	<ul style="list-style-type: none"> <li>• Last day for property owners to file renditions and property information reports if they requested an extension in writing</li> </ul>
May, 2020	15	<ul style="list-style-type: none"> <li>• Last day for property owners to file protest with ARB (or by 30<sup>th</sup> day after notice of appraised value is delivered, whichever is later)</li> </ul>
June, 2020	8-29	<ul style="list-style-type: none"> <li>• Conduct first sessions of 2020 Formal ARB Protest Hearings</li> </ul>
July, 2020	6-20	<ul style="list-style-type: none"> <li>• Conduct second session of 2020 Formal ARB Protest Hearings</li> </ul>
July, 2020	20	<ul style="list-style-type: none"> <li>• Date ARB must approve appraisal records, but may not do so if more than 5 percent of total appraised value remains under protest. The Board of Directors of the CAD with a population of 1 million or more may postpone the deadline to August 30<sup>th</sup> or increase the threshold percentage from 5 to 10 percent of the appraised value of properties not under protest.</li> </ul>
July, 2020	25	<ul style="list-style-type: none"> <li>• Last day the Chief Appraiser to certify roll to each taxing unit</li> </ul>

## **Data**

The district is responsible for establishing and maintaining approximately 55,000 real and personal property accounts covering 864 square miles within the Van Zandt County Appraisal District's 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 routinely validated during an office review and a separate field effort when applicable; however, numerous sales are 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 surveys sent to buyers and sellers, university research centers, local realtors, fee appraisers, contractors, market data centers, and vendors.

The district has a geographic information system (GIS) that maintains maps and various layers of data, including aerial photography. Aerial imagery as well as improvement change detection systems are purchased every 2 or 3 years from Pictometry. Frequency of aerial imagery flights is based upon budgetary resources available. The district's website makes 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, frequently ask questions, links to other governmental agencies, interactive property maps, aerial imagery, and a tax calendar.

## **Information Systems**

The Chief Appraiser, Data Processing Director, and the GIS department manage and maintain the district's data processing systems, software applications, Internet website, and geographical information system in concert with the district's IT vendors. The district contracts with Southwest Data Solutions to develop, maintain, and update the district's CAMA software and integrated collections software, as well as provide assistance with generating reports and extracting information from the database. The district also contracts with BIS Consulting to provide IT maintenance and support, GIS maintenance and support, and to host the district's website and interactive mapping systems.

## **Appraisal District's Boundaries**

Current legislation has determined that each Appraisal District shall appraise all property within the geographical boundaries of its county.

## **Independent Performance Test**

According to Chapter 5 of the TPTC and Section 403.302 of the Texas Government Code, the State Comptroller's Property Tax Division (PTD) conducts an annual property value study (PVS) of each Texas school district and each appraisal district. As a part of this annual study, the code also requires the Comptroller to; use sales and recognized auditing sampling techniques; review each appraisal district's appraisal methods, standards and procedures to determine whether the district used recognized standards and practices (MAP review); test the validity of school district taxable values in each appraisal district and presume the appraisal roll values are correct when values are valid; and, determine the level and uniformity of property tax appraisal in each appraisal district. The methodology used in

the property value study includes stratified samples to improve sample representativeness and techniques or procedures of measuring uniformity. This study utilizes statistical analysis of sold properties (sale ratio studies) and appraisals of unsold properties (appraisal ratio studies) as a basis for assessment ratio reporting. For appraisal districts, the reported measures include median level of appraisal, coefficient of dispersion (COD), the percentage of properties within 10% of the median, the percentage of properties within 25% of the median, and price-related differential (PRD) for properties overall and by state category (i.e., categories A, B, C, D, E, and F1 are directly applicable to real property). There are 7 independent school districts in Van Zandt County Appraisal District for which appraisal rolls are annually developed. The preliminary results of this study are released in January in the year following the year of appraisal. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of appraisal. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

In 2009, the Texas Legislature enacted a new law that amended Property Tax Code Section 5.102. It requires the Comptroller's office to conduct a biennial review of appraisal district's governance, taxpayer assistance, and operating and appraisal standards, procedures, and methodology used to determine compliance with generally accepted standards, procedures, and methodology. This review is currently called the Methods and Assistance Program (MAP) Review.

## **APPRAISAL ACTIVITIES**

### **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. This appraisal activity is responsible for administering, planning and coordinating all activities involving data collection and maintenance of all commercial, residential, and personal property types which are located within the boundaries of Van Zandt CAD. The data collection effort involves the field inspection of real and personal property accounts, as well as data entry of all data collected into the existing information system. The goal is to periodically field inspect residential and commercial properties in Van Zandt County every three years. The use of aerial photography and a periodical digital photography project may also be used in meeting this goal. Ultimately, meeting this goal is dependent on budgetary and personnel resources.

### **Appraisal Resources**

- **Personnel** – The appraisal activities consist of 7 appraisers and 2 administrative assistants.
- **Data** – The data used by field appraisers includes the existing property characteristic information contained in CAMA (Computer Assisted Mass Appraisal System). The data is collected and given to the Data Processing Department for data entry. Other data used includes maps, sales data, fire and damage reports, building permits, on-site photos, aerial Pictometry, Change Finder computer analysis, actual cost information, and income and expense data.

## **Preliminary Analysis**

### **Data Collection/Validation**

Data collection of real property involves maintaining data characteristics of the property in CAMA (Computer Assisted Mass Appraisal System). The information contained in CAMA includes site characteristics, such as land size and topography, and improvement data, such as square footage, 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 the manuals and the approaches to value are structured and calibrated based on this coding system. The field appraisers use these manuals during their initial training and as a guide in the field inspection of properties. Data collection for personal property involves maintaining information in the CAMA system. The type of information contained in the CAMA system includes personal property such as business inventory, furniture and fixtures, machinery and equipment, cost, age, and location. The field appraisers conducting on-site inspections use a personal property manual during their initial training and as a guide to correctly list all personal property that is taxable. The manuals that are utilized by the field appraisers are available in the district office. Management reviews and updates the manuals on a biennial basis.

## **Sources of Data**

The sources of data collection are through the new construction field efforts, field reappraisal, aerial Pictometry Change Finder computer analysis, reappraisal, hearings, sales processing, newspapers and publications, property owner correspondence, sales surveys, income and expense surveys, and inquiries received via the Internet. A principal source of data comes from building permits received from city administration and deed of trusts and mechanics liens that were recorded in the Van Zandt County Courthouse. These are matched manually with the property's tax account number by the appraisal staff and then updated into CAMA.

Data review of entire neighborhoods is generally a good source for data collection. Appraisers typically drive all public access roads to review the accuracy of the data and identify properties that need to be updated during the permit and reappraisal effort. When permissible, aerial Pictometry and Change Finder software and data are utilized for property review and appraisal. During Sales Processing property characteristics are also verified. In residential and commercial, the sales validation effort involves office review and verification and when needed on-site inspections by field appraisers to verify the accuracy of the property characteristics. Sale surveys are also mailed out to the grantee and grantor on all undisclosed Commercial sales and for certain undisclosed Residential sales.

Property owners are one of the best sources for identifying incorrect data that generates a field check. Frequently, the property owner provides sufficient enough data to allow correction of records without having to send an appraiser on-site. Communication from the property owners is often received notifying the district of inaccurate data. Properties identified in this manner are added to a work file and inspected at the earliest opportunity.

## **Data Collection Procedures**

Field data collection requires organization, planning and supervision of the field effort. Data collection procedures have been established for residential, commercial, and personal property. The appraisers are assigned throughout Van Zandt County to conduct field inspections. Appraisers conduct field inspections and record information in the CAMA system via the Data Processing Director. On-site field inspections are organized on a three-year rotating schedule. The procedure ensures that every property receives an appropriate on-site or aerial inspection a minimum of once every three years.

The quality of the data used is extremely important in establishing accurate values of taxable property. While production standards are established and upheld for the various field activities, quality of data is emphasized as the goal and responsibility of each appraiser. New appraisers are trained in the specifics of data collection set forth in the appraisal manuals. Experienced appraisers are routinely re-trained in new or updated procedures prior to major field projects. A quality control process exists through supervisory review of the work being performed by the field appraisers. Management is charged with the responsibility of ensuring that appraisers follow listed procedures, identify training issues, and provide uniform training throughout the field appraisal staff. When applicable, Senior Appraisers will also assist with the quality control of the appraisal project.

## **Data Maintenance**

The field appraiser is responsible for the data entry of his/her fieldwork directly into the CAMA system via the Data Processing Director. The Data Processing Director's responsibilities includes not only data entry, but also quality control.

### **Individual Value Review Procedures**

The date of last inspection, results of that inspection, and the initials of the appraiser responsible are listed on the account 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, the record may be altered based on the evidence provided. When needed, a field inspection is required to verify this evidence for the current year's valuation or for the next year's valuation. Every year a field review of certain areas or neighborhoods in the jurisdiction is accomplished during the annual reappraisal effort. Specific areas for field review are determined by the three-year field reappraisal rotation.

### **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 photographs, via Pictometry software system, and digital on-site photographs are also used to verify property characteristics. When the property data is verified in this manner, field inspections are not required.

### **Performance Test**

Supervisors and appraisers are responsible for conducting ratio studies and comparative analysis to insure accurate and equitable appraised values. (Refer to the individual valuation process summary reports).

## Residential Valuation Process

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### Scope of Responsibility

The Residential Valuation appraisers are responsible for developing equal uniform market values for residential improved and vacant property. There are approximately 47,000 real property parcels within the Van Zandt CAD territorial boundaries.

### Appraisal Resources

- **Personnel**-The Residential Appraisal Staff consists of 6 appraisers (2 appraisers split duties with Business Personal Property and 1-D-1 Open Space Appraisal assignments)
- **Data**-A common set of data characteristics for each residential dwelling in Van Zandt County is collected in the field and data entered to the computer. The 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 photographs and aerial photography. The following data attribute information is captured on each appraisal record: Land Value, SPTD Code, Building Class, Condition/Desirability/Utility Rating, Actual Year Built, Effective Year Built, Living Area, Additional Improvements, Total Living Area, Foundation, Basement, Heating, Roof type, Roofing, Garage, Frame, Exterior Walls, Fireplace, Kitchens, Full Baths, Half Baths, Air Conditioning, Level of Completion, Deck, Porch, Paved Driveways, and Special Features.
- **Residential Reappraisal Schedule** – The following three-year reappraisal inspection rotation is employed to ensure that all properties receive inspection as outlined by Section 25.18 of the Texas Property Tax Code.

<b>RESIDENTIAL APPRAISER ASSIGNMENTS</b>		
<b>Misty J.</b> Canton ISD	<b>Tim C.</b> Van ISD Brownsboro ISD Lindale ISD	<b>Sarah R.</b> Wills Point ISD Edgewood ISD
<b>Nancy L.</b> Martins Mill ISD Mabank ISD Eustace ISD Athens ISD	<b>Emily R.</b> Grand Saline ISD Fruitvale ISD	<b>Vacant</b> 1-d-1 Appraiser  Train and Assist with Residential Part-time

<b>RESIDENTIAL AUDIT INSPECTION ROTATION (2019 - 2021)</b>		
<b>MKT AREA/ISD</b>	<b>SUB-AREA</b>	<b>AUDIT YEAR</b>
<b>Van</b>	Northern Rural	2019
	Southern Rural	2020
	Central Rural, City, Hickory Hills, Calendar Lake	2021
<b>Lindale</b>	All	2021
<b>Brownsboro</b>	All	2021
<b>Martins Mill</b>	All	2021
<b>Grand Saline</b>	Rural	2019
	City	2020
<b>Edgewood</b>	City	2019
	Rural	2020
<b>Fruitvale</b>	All	2021
<b>Athens/Eustace</b>	All	2020
<b>Mabank</b>	All	2020
<b>Canton</b>	Northern Rural	2019
	Southern Rural	2020
	City	2021
<b>Wills Point</b>	Northern Rural	2019
	Southern Rural	2020
	Central Rural & City	2021

Properties in areas not scheduled for reappraisal for the relevant year will be reviewed based upon the outlined individual value review procedures. The reappraisal schedule only outlines the minimum scheduling requirements set forth by the Texas Property Tax Code and Van Zandt County Appraisal

District management. Therefore, anytime overages occur in resources, time and personnel, the Chief Appraiser shall determine additional areas for reappraisal for the relevant year.

## **VALUATION APPROACH**

### **Land Analysis**

Residential land valuation analysis is conducted prior to neighborhood sales analysis. The value of the land component to the property is estimated based on available market sales for comparable and competing land under similar usage. A comparison and analysis of comparable land sales is conducted based on a comparison of land characteristics found to influence the market price of land located in the neighborhood. Computerized land table files store the land information required to consistently value individual parcels within neighborhoods given known land characteristics. Specific land influences are considered, where necessary, and depending on neighborhood and individual lot or tract characteristics, to adjust parcels outside the neighborhood norm for such factors as access, view, shape, size, and topography. The appraisers use abstraction and allocation methods to ensure that estimated land values best reflect the contributory market value of the land to the overall property value.

### **Area Analysis**

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

### **Neighborhood and Market Analysis**

Neighborhood analysis involves the examination of how physical, economic, governmental and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and stratify comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. Residential valuation and neighborhood analysis is conducted on various market areas within each of the political entities known as Independent School Districts (ISD). Analysis of comparable market sales forms the basis of estimating market activity and the level of supply and demand affecting market prices for any given market area, neighborhood or district. Market sales indicate the effects of these market forces and are interpreted by the appraiser into an indication of market price ranges and indications of property component change considering a given time period relative to the date of appraisal. Cost and Market Approaches to estimate value are the basic techniques utilized to interpret these sales. For multiple family properties the Income Approach to value is also utilized to estimate an opinion of value for investment level residential property.

The first step in neighborhood analysis is the identification of a group of properties that share certain common traits. A "neighborhood" for analysis purposes is defined as the largest geographic grouping of properties where the property's physical, economic, governmental and social forces are generally similar

and uniform. Geographic stratification accommodates the local supply and demand factors that vary across a jurisdiction. Once a neighborhood with similar characteristics has been identified, the next step is to define its boundaries. This process is known as "delineation". Some factors used in neighborhood delineation include location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, square footage of living area, and story height. Delineation can involve the physical drawing of neighborhood boundary lines on a map, but it can also involve statistical separation or stratification based on attribute analysis. Part of neighborhood analysis is the consideration of discernible patterns of growth that influence a neighborhood's individual market. Few neighborhoods are fixed in character. Each neighborhood may be characterized as being in a stage of growth, stability or decline. The growth period is a time of development and construction. As new neighborhoods in a community are developed, they compete with existing neighborhoods. An added supply of new homes tends to induce population shift from older homes to newer homes. In the period of stability, or equilibrium, the forces of supply and demand are about equal. Generally, in the stage of equilibrium, older neighborhoods can be more desirable due to their stability of residential character and proximity to the workplace and other community facilities. The period of decline reflects diminishing demand or desirability. During decline, general property use may change from residential to a mix of residential and commercial uses. Declining neighborhoods may also experience renewal, reorganization, rebuilding, or restoration, which promotes increased demand and economic desirability.

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

Van Zandt County is rather homogenous, having relatively small variations in its property makeup due to its rural nature. Therefore, based upon the aforementioned neighborhood market analysis procedures, Van Zandt County Appraisal District has divided the county into the following market areas and neighborhood subsets: Canton I.S.D. Rural, City of Canton, Wills Point I.S.D. Rural, City of Wills Point, Rolling Oaks Subdivision, Edgewood I.S.D. Rural, City of Edgewood, Fruitvale I.S.D. Rural, City of Fruitvale, Grand Saline I.S.D. Rural, City of Grand Saline, Van and Lindale Overlap I.S.D. Rural, City of Van, Calendar Lake Subdivision, Hickory Hills Subdivision, Martins Mill I.S.D., and the Southern Overlapping I.S.D.'s (Brownsboro, Athens, Eustace, and Mabank).

Properties within Van Zandt County's neighborhood subsets are given market adjustments based upon such attributes as proximity to bodies of water, perceived school district quality, geographic aesthetic appeal, access and proximity to major interstate or highways, actual and potential economic development (and lack thereof), and various other physical, social, political, or economic factors. Market characteristics warranting adjustments are identified by statistical analysis of adjusted sales between market areas. Identifiable and quantifiable adjustments are determined through extensive paired sales analysis, further trend analysis, ratio studies, regression analysis, and property owner sales surveys. Van Zandt County Appraisal District reviews neighborhood market adjustments annually to ensure that appraisal values are accurate and equitable.

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

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

## **VALUATION AND STATISTICAL ANALYSIS**

### **Cost Schedules**

All residential parcels in the district are valued with a replacement cost estimated from identical cost schedules based on the improvement classification system using a comparative unit method. The district's residential cost schedules are estimated from Marshall and Swift, a nationally recognized cost estimator service. These cost estimates are compared with sales of new improvements and evaluated from year to year and indexed to reflect the local residential building and labor market. Costs may also be indexed for neighborhood factors and influences that affect the total replacement cost of the improvements in a smaller market area based on evidence taken from a sample of market sales. The cost schedules are reviewed regularly as a result of recent state legislation requiring that the appraisal district cost schedules be within a range of plus or minus 10% from nationally recognized cost schedules.

A review of the residential cost schedule is performed annually. As part of this review and evaluation process of the estimated replacement cost, newly constructed sold properties representing various levels of quality of construction in district are considered. The property data characteristics of these properties are verified and photographs are taken of the samples. CAD replacement costs are compared against Marshall & Swift, a nationally recognized cost estimator, and the indicated replacement cost abstracted from these market sales of comparably improved structures. The results of this comparison are analyzed using statistical measures, including stratification by quality and reviewing of estimated building costs plus land to sales prices. As a result of this analysis, a new regional multiplier or economic index factor and indications of neighborhood economic factors are developed for use in the district's cost process. This new economic index is estimated and used to adjust the district's cost schedule to be in compliance with local building costs as reflected by the local market.

### **Sales Information**

A sales file for the storage of sales data at the time of sale is maintained for real property within the district's CAMA system. Residential vacant land sales, along with residential improved sales are maintained in a sales information system. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyer and seller, field discovery, protest hearings, Board of Realtor's MLS, various sale vendors, builders, and realtors. A system of type, source, validity and verification codes has been established to define salient facts related to a property's purchase or transfer and to help determine relevant market sale prices. The effect of time as an influence on price was considered by paired comparison and applied in the ratio study to the sales as indicated within each neighborhood area when warranted. Neighborhood sales reports are generated as an analysis tool for the appraiser in the development and estimation of market price ranges and property component value estimates. Abstraction and allocation of property components based on sales of similar property is an important analysis tool to interpret market sales under the cost and market approaches to value. These analysis tools help determine and estimate the effects of change, with regard to price, as indicated by sale prices for similar property within the current market.

Monthly time adjustments are estimated based on comparative analysis using paired comparisons of sold property when available. Sales of the same property are considered and analyzed for any indication of price change attributed to a time change or influence. Property characteristics, financing, and conditions of sale are compared for each property sold in the pairing of property to isolate only the time factor as an influence on price.

### **Statistical Analysis**

The residential valuation appraisers perform statistical analysis annually to evaluate whether estimated values are equitable and consistent with the market. Ratio studies are conducted on each of the residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy, level and uniformity of value. Appraisal statistics of central tendency generated from sales ratios are evaluated and analyzed for each neighborhood. The level of appraised values is determined by the weighted mean ratio for sales of individual properties within a neighborhood, and a comparison

of neighborhood weighted means reflect the general level of appraised value between comparable neighborhoods. Other measures such as Coefficient of Dispersion (COD) and Price Related Differentials (PRD) are considered to ensure uniformity and equality of appraisals.

The appraiser, through the sales ratio analysis process, reviews every neighborhood annually. The first phase involves neighborhood ratio studies that compare the recent sales prices of neighborhood properties to the appraised values of these sold properties. This set of ratio studies affords the appraiser an excellent means of judging the present level of appraised value and uniformity of the sales. The appraiser, based on the sales ratio statistics and designated parameters for valuation update, makes a preliminary decision as to whether the value level in a neighborhood needs to be updated or whether the level of market value in a neighborhood is at an acceptable level. These preliminary findings are then discussed and reviewed with the Senior Appraiser and Chief Appraiser.

### **Market and Cost Reconciliation and Valuation**

Neighborhood analysis of market sales to achieve an acceptable sale ratio or level of appraisal is also the reconciliation of the market and cost approaches to valuation. Market factors are developed from appraisal statistics provided from market analysis and ratio studies and are used to ensure that estimated values are consistent with the market and to reconcile cost indicators. The district's primary approach to the valuation of residential properties uses a hybrid cost-sales comparison approach. This type of approach accounts for neighborhood market influences not particularly specified in a purely cost model.

The following equation denotes the hybrid model used:

$$MV = LV + (RCN - AD)$$

Whereas, in accordance with the cost approach, the estimated market value (MV) of the property equals the land value (LV) plus the replacement cost new of property improvements (RCN) less accrued depreciation (AD). As the cost approach separately estimates both land and building contributory values and uses depreciated replacement costs, which reflect only the supply side of the market, it is expected that adjustments to the cost values may be needed to bring the level of appraisal to an acceptable standard as indicated by market sales. Thus, demand side economic factors and influences may be observed and considered. These market, or location adjustments, may be abstracted and applied uniformly within neighborhoods to account for location variances between market areas or across a jurisdiction. Whereas, in accordance with the Market Approach, the estimated market value (MV) of the property equals the basic unit of property, under comparison, times the market price range per unit for sales of comparable property. For residential property, the unit of comparison is typically the price per square foot of living area or the price indicated for the improvement contribution. This analysis for the hybrid model is based on both the cost and market approaches as a correlation of indications of property valuation. A significant unknown for these two indications of value is determined to be the rate of change for the improvement contribution to total property value. The measure of change for this property component can best be reflected and based in the annualized accrued depreciation rate. This cost related factor is most appropriately measured by sales of similar property. The market approach,

when improvements are abstracted from the sale price, indicates the depreciated value of the improvement component, in effect, measuring changes in accrued depreciation, a cost factor. The level of improvement contribution to the property is measured by abstraction of comparable market sales, which is the property sale price less land value. The primary unknown for the cost approach is to accurately measure accrued depreciation affecting the amount of loss attributed to the improvements as age increases and condition changes. This evaluation of cost results in the depreciated value of the improvement component based on age and condition. The evaluation of this market and cost information is the basis of reconciliation and indication of property valuation under this hybrid model. The Marshall & Swift cost manual is considered and compared when developing improvement depreciation and serves as the basis of improvement depreciation in the absence of sufficient local market data.

When the appraiser reviews a neighborhood, the appraiser reviews and evaluates a ratio study that compares recent sales prices of properties, appropriately adjusted for the effects of time, within a delineated neighborhood, with the value of the properties' based on the estimated depreciated replacement cost of improvements plus land value. The calculated ratio derived from the sum of the sold properties' estimated value divided by the sum of the time adjusted sales prices indicates the neighborhood level of appraisal based on sold properties. This ratio is compared to the acceptable appraisal ratio, 96% to 104%, to determine the level of appraisal for each neighborhood. If the level of appraisal for the neighborhood is outside the acceptable range of ratios, adjustments to the neighborhood are made.

If reappraisal of the neighborhood is indicated, the appraiser analyzes available market sales, appropriately adjusted for the apparent effects of time, by market abstraction of property components. This abstraction of property components allows the appraiser to focus on the rate of change for the improvement contribution to the property by providing a basis for calculating accrued depreciation attributed to the improvement component. This impact on value is usually the most significant factor affecting property value and the most important unknown to determine by market analysis. Abstraction of the improvement component from the adjusted sale price for a property indicates the effect of overall market suggested influences and factors on the price of improvements that were a part of this property, recently sold. Comparing this indicated price or value allocation for the improvement with the estimated replacement cost new of the improvement indicates any loss in value due to accrued forms of physical, functional, or economic obsolescence. This is a market driven measure of accrued depreciation and results in a true and relevant measure of improvement marketability, particularly when based on multiple sales that indicate the trending of this rate of change over certain classes of improvements within certain neighborhoods. Based on this market analysis, the appraiser estimates the annual rate of depreciation for given improvement descriptions considering age and observed condition. Once estimated, the appraiser recalculates the improvement value of all property within the sale sample to consider and review the effects on the neighborhood sale ratio. After an acceptable level of appraisal is achieved within the sale sample, the entire neighborhood of property is recalculated utilizing the indicated depreciation rates taken from market sales. This depreciation factor is the basis for trending

all improvement values and when combined with any other site improvements and land value, brings the estimated property value through the cost approach closer to actual market prices as evidenced by recent sale prices available within a given neighborhood. Therefore, based on analysis of recent sales located within a given neighborhood, estimated property values will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The estimated property values calculated for each updated neighborhood are based on market indicated factors applied uniformly to all properties within a neighborhood. Finally, with all the market-trend factors applied, a final ratio study is generated that compares recent sale prices with the proposed appraised values for these sold properties. From this set of ratio studies, the appraiser judges the appraisal level and uniformity in both updated and non-updated neighborhoods and verifies appraised values against overall trends as exhibited by the local market, and finally, for the school district as a whole.

### **TREATMENT OF RESIDENCE HOMESTEADS**

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

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

Assessed values of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1<sup>st</sup> of the year following sale of the property and the property is appraised at its market value. An analogous provision applies to new homes. While a developer owns them, unoccupied residences may be partially complete and appraised as part of an inventory. This valuation is estimated using the district's land value and the percentage of completion for the improvement contribution that usually is similar to the developer's construction costs as a basis of completion on the valuation date. However, in the year following changes in completion, occupancy, or sale, they are appraised at market value.

### **INDIVIDUAL VALUE REVIEW PROCEDURES**

#### **Field Review**

The appraiser identifies individual properties in critical need of field review through sales ratio analysis. Sold properties are field reviewed on a monthly and periodic basis to check for accuracy of data characteristics.

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

### **Office Review**

Once field review is completed, the appraiser conducts a routine valuation review of all properties as outlined in the discussion of ratio studies and market analysis. Valuation reports comparing previous values against proposed and final values are generated for all residential improved and vacant properties. The percentage of value difference are noted for each property within a delineated neighborhood allowing the appraiser to identify, research and resolve value anomalies before final appraised values are released. Previous values resulting from a hearing protest are individually reviewed to determine if the value remains appropriate for the current year.

Once the appraiser is satisfied with the level and uniformity of value for each neighborhood within his area of responsibility, the estimates of value go to noticing.

## **PERFORMANCE TESTS**

### **Sales Ratio Studies**

The primary analytical tool used by the appraisers to measure and improve performance is the ratio study. The district ensures that the appraised values that it produces meet the standards of accuracy in several ways. Overall sales ratios are generated for each neighborhood to allow the appraiser to review general market trends within their area of responsibility, and provide an indication of market appreciation over a specified period of time. The CAMA based ratio studies are designed to emulate the findings of the state comptroller's annual property value study for category A property.

### **Management Review Process**

Once the proposed value estimates are finalized, the appraiser reviews the sales ratios by neighborhood and presents pertinent valuation data, such as weighted sales ratio and pricing trends, to the appraisal supervisors and the Chief Appraiser for final review and approval. This review includes comparison of level of value between related neighborhoods within and across jurisdiction lines. The primary

objective of this review is to ensure that the proposed values have met preset appraisal guidelines appropriate for the tax year in question.

## **SPECIAL STUDIES**

### **City and Subdivision Land/Lot Valuation**

An in-depth study will be conducted during the 2019 and 2020 appraisal years to reevaluate individual characteristics and correlating factors that determine market value of land and lots within incorporated cities and developed subdivisions. Special diligence will be given to collection and compiling of land and lot sales data. Specific sales surveys and interviews with sellers, buyers, developers, realtors, and bankers will all be utilized to collect market data. The Lead Appraiser/Commercial Appraiser (Julie Hickman) will be coordinating appraiser resources and assignments, as well as acting as the central agent in charge of compiling data for analysis. The Chief Appraiser and Lead Appraiser will jointly analyze data collected and develop conclusions for application to the land model. Through this special study, Van Zandt County Appraisal District aims to increase the accuracy and equality of its land appraisal models.

# Commercial and Industrial Real Property Valuation Process

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## *INTRODUCTION*

### **Appraisal Responsibility**

This mass appraisal assignment includes all of the commercially described real property (Category F1, B, and select F2) which falls within the responsibility of the commercial valuation appraiser of the Van Zandt County Appraisal District and located within the boundaries of this taxing jurisdiction. The commercial appraiser appraises the fee simple interest of properties according to statute and court decisions. However, the affect of easements, restrictions, encumbrances, leases, contracts or special assessments are considered on an individual basis, as is the appraisalment of any non exempt taxable fractional interests in real property (i.e. certain multi-family housing projects). Fractional interests or partial holdings of real property are appraised in fee simple for the whole property and divided programmatically based on their prorated interests. Industrial Real Property (F2) has been contracted to Capitol Appraisal Group LLC (see Industrial Real Property sub-section below).

### **Appraisal Resources**

**Personnel** – The commercial improved real property appraisal responsibilities are categorized according to major property types of office, retail, warehouse and special use (i.e. hotels, apartments and nursing homes).

One appraiser is responsible for estimating the market value of commercial real property and the industrial property staff consists of the personnel employed by the Capital Appraisal Group under contract with Van Zandt County Appraisal District.

**Data** –The data used by the commercial appraiser includes verified sales, income and expense data, rental/lease information and construction cost data. Surveys are sent quarterly to collect sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.). Surveys are also sent in November by the appraiser to collect actual income and expense data, actual contract rental data and leasing information (commissions, tenant finish, length of terms, etc.). Actual construction costs are typically obtained through the protest process but cost data is acquired yearly using Marshall Valuation Service. In addition to the actual data obtained from specific properties, market data publications are also reviewed to provide additional support for market trends.

**Commercial Reappraisal Schedule** - The following three-year reappraisal rotation is employed to ensure that all properties receive inspection/reappraisal as outlined by Section 25.18 of the Texas Property Tax Code.

**Central Belt 1/3**

Year 1            Canton – All  
(2019)            Van Northern and City  
                      Special Studies – City and Subdivision Land/Lot Valuation  
                      Cross-training New Commercial Appraiser

**Northern Belt 1/3**

Year 2            Commercial Appraiser Transition  
(2020)            Grand Saline – All  
                      Fruitvale – All  
                      Edgewood – All  
                      Wills Point – All

**Southern Belt 1/3**

Year 3            Martins Mill – All  
(2021)            Overlapping (Athens, Eustace, Mabank, Lindale, Brownsboro)  
                      Van Southern Rural  
                      Special Studies – First Monday Trade Days

Residential, Agriculture, and Business Personal Property Field Appraisers also aid in identification of new, changed, or removed improvements during the course of their assigned field audits. Properties identified as new, changed, or demolished will be flagged and given to the commercial appraiser for further review.

**PRELIMINARY ANALYSIS**

**Market Study**

Market studies are utilized to test new or existing procedures or valuation modifications in a limited sample of properties located in the district and are also considered and become the basis of updating whenever substantial changes in valuation are made. These studies target certain types of improved property to evaluate current market prices for rents and for sales of commercial and industrial real property. These comparable sale studies and ratio studies reveal whether the valuation system is producing accurate and reliable value estimates or whether procedural and economic modifications are required. The appraiser implements this methodology when developing cost approach, market approach, and income approach models.

Van Zandt CAD coordinates its discovery and valuation activities with adjoining appraisal districts. Numerous field trips, interviews and data exchanges with adjacent appraisal districts have been conducted to ensure compliance with state statutes. In addition, Van Zandt CAD administration and personnel interact with other assessment officials through professional trade organizations including the

Texas Association of Appraisal Districts and the Texas Association of Assessing Officers. District staff strives to maintain appraisal skills and professionalism by continuing education in the form of courses that are offered by several professional associations such as Texas Association of Assessing Officers (TAAO), Texas Association of Appraisal Districts (TAAD) and others approved by the Texas Board of Licensing and Regulation.

## **VALUATION APPROACH**

### **Land Value**

Commercial land is analyzed annually to compare appraised values with recent sales of land in the market area. If appraised values differ from sales prices being paid, adjustments are made to all land in that region. Land pricing is analyzed not only county wide but also by market areas. The larger breakdown is by school district and then whether the land is in the city limits or has a rural location. Trends of both increase in value and decrease in value are noted. Sales are analyzed to determine if they represent a true market transaction or there are special circumstances that caused an unusually high or low price. Generally, commercial land is appraised on a price per square foot basis. Factors are placed on individual properties based on corner influence, depth of site, shape of site, easements across site, and other factors that may influence value. The land is valued as though vacant at the highest and best use.

### **Area Analysis**

Area data on regional economic forces such as demographic patterns, regional and location factors, employment and income patterns, general trends in real property prices and rents, interest rate trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources.

### **Neighborhood Analysis**

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

Economic areas are defined by each of the improved property use types (apartment, office, retail, warehouse and special use) based upon an analysis of similar economic or market forces. Economic area identification and delineation by each major property use type is the benchmark of the commercial valuation system. Studies involving similarities of rental rates, classification of projects (known as building class by area commercial market experts), date of construction, overall market activity or other pertinent influences are used for this delineation. All income model valuation (income approach to

value estimates) is economic area specific. Economic areas are periodically reviewed to determine if re-delineation is required. The geographic boundaries as well as income, occupancy and expense levels and capitalization rates by age within each economic area for all commercial use types and its corresponding income model have been estimated for these properties.

## **2018 COMMERCIAL REAPPRAISAL SUMMARY**

The commercial schedule was updated using current costs derived from the Marshall Valuation Service and modified using current and local modifiers. Several new occupancies were added to provide more variety for a more robust cost-based appraisal. Some occupancies were adjusted further for lack of certain construction costs and fees. Several occupancies in whole received an office review to ensure the schedule update was applied appropriately. A Market History Comparison Report showed a fairly fluid transition from the mass appraisal schedule in 2017 to the updated schedule for 2018. A reappraisal of commercial properties comprising First Monday Trade Days in the City of Canton that began in 2017 was completed for 2018. Before and after studies were performed and are available for review upon request.

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

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

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

### **Market Analysis**

A market analysis relates directly to examining market forces affecting supply and demand. This study involves the relationships between social, economic, environmental, governmental, and site conditions. Current market activity including sales of commercial properties, new construction, new leases, lease

rates, absorption rates, vacancies, allowable expenses (inclusive of replacement reserves), expense ratio trends, capitalization rate studies are analyzed to determine market ranges in price, operating costs and investment return expectations.

## **DATA COLLECTION / VALIDATION**

### **Data Collection**

Data collection and documentation for Commercial/Industrial property is continually updated, providing a uniform system of itemizing the multitude of components comprising improved properties. All properties located in Van Zandt CAD's appraisal jurisdiction are coded according to a specific classification system and the approaches to value are structured and calibrated based on this coding system.

### **Sources of Data**

Van Zandt CAD is a subscribing member of the local MLS, North East Texas Real Estate Information System. This database is monitored monthly for current sales data. This data is recorded into the computerized sales database system and marked as a Type V sale for a verified transaction.

Van Zandt CAD also receives a copy of the deeds recorded in Van Zandt County and adjoining counties that convey commercially classed properties. These deeds involving a change in commercial ownership are entered into the sales information system and researched in an attempt to obtain the pertinent sale information. The initial step in sales verification for ownership transfers involves a computer-generated questionnaire, which is mailed quarterly to both parties in the transaction (Grantor and Grantee). If a questionnaire is returned, the documented responses are recorded into the computerized sales database system and marked as a Type S sale for a survey not verified.

In addition to sales data, the commercial appraiser attempts to collect actual income and expense data. This data is obtained from commercial property owners in respects to their specific properties as well as market data publications. The income and expense data from property owners is requested annually at the end of each calendar year using in-house income and expense worksheets. These worksheets inquire about contract rent, leasing information (commissions, tenant finish, vacancy, length of terms, etc.), operating expenses, rental income, etc. The market data publications are also reviewed annually to provide additional support for market trends. These include materials and websites by outside real estate organizations such as the Texas State Comptroller, HOST Almanac, CBRE Cap Rate Study, and Texas A&M Research Center.

Other sources of sale data include the protest hearings process and local, regional and national real estate and financial publications. Closing statements are often provided during the hearings process. The closing statement is the most reliable and preferred method of sales verification.

## **VALUATION ANALYSIS**

Model calibration involves the process of periodically adjusting the mass appraisal formulae, tables and

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

### **Cost Schedules**

The cost approach to value is applied to improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost data reporting services as well as actual cost information on local comparable properties whenever possible. Cost models are typically developed based on the Marshall Valuation Service (MVS) which indicates estimated hard or direct costs of various improvement types. Cost models include the derivation of replacement cost new (RCN) of all improvements represented within the district. These include comparative base rates, per unit adjustments and lump sum adjustments for variations in property description, design, and types of improvement construction. This approach and analysis also employs the sales comparison approach in the evaluation of soft or indirect costs of construction. Evaluating market sales of newly developed improved property is an important part of understanding total replacement cost of improvements. What total costs may be involved in the development of the property, as well as any portion of cost attributed to entrepreneurial profit can only be revealed by market analysis of pricing acceptance levels. In addition, market related land valuation for the underlying land value is important in understanding and analyzing improved sales for all development costs and for the abstraction of improvement costs for construction and development. Time and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost service is used as a basis for the cost models, location adjustments and estimates of soft cost factors are necessary to adjust these base costs specifically for various types of improvements located in Van Zandt County. Thusly, local multipliers are additional cost factors applied to replacement cost estimated by the MVS. Estimated replacement cost new will reflect all costs of construction and development for various improvements located in Van Zandt County as of the date of appraisal. The MVS updates their cost data on a rotating two-year schedule, their indexes quarterly and cost and local multipliers monthly for a constant up-to-date analysis. In order to maintain the most fair and accurate appraisals, our local cost schedules will be updated yearly prior to reappraisal to reflect MVS's current data.

Accrued depreciation is the sum of all forms of loss affecting the contributory value of the improvements. It is the measured loss against replacement cost new taken from all forms of physical deterioration, functional and economic obsolescence. Accrued depreciation is estimated and developed based on losses typical for each property type at that specific age. Depreciation estimates have been implemented for what is typical of each major class of commercial property by economic life categories. Estimates of accrued depreciation have been calculated for improvements with a range of variable years expected life based on observed condition considering actual age. These estimates are continually tested to ensure they are reflective of current market conditions. The actual and effective ages of

improvements are noted in CAMA. Effective age estimates are based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and its competitive position in the marketplace. Effective age estimates are considered and reflected based on five levels or rankings of observed condition, given actual age.

Income information, if available, is also used to adjust the cost schedules when applicable. Every year requests for income and expense information are sent to all the multi-family property owners. This information is then analyzed to determine how to adjust the cost schedules with local modifiers to adjust for our local economy. Analyses are also conducted to determine which neighborhoods are experiencing the highest and lowest vacancies and rent and adjustments were made accordingly. These Neighborhoods not only included segregation by school districts but also comparisons inside the city limit as compared to outside the city limit. Both trends of positive and negative effects were considered. The multi-family properties were not put on a strictly income approach but instead, they were put on a modified cost approach which was adjusted for the local economy, depending on where in the Market Area, they existed.

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

The result of estimating accrued depreciation and deducting that from the estimated replacement cost new of improvements indicates the estimated contributory value of the improvements. Adding the estimated land value, as if vacant, to the contributory value of the improvements, indicates the property value by the cost approach. Given relevant cost estimates and market related measures of accrued depreciation, the indicated value of the property by the cost approach becomes a very reliable valuation technique.

### **Income Models**

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

A vacancy and collection loss allowance is the next item to consider in the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by property owners and local market survey trends. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. This feature may also provide for a reasonable lease-up period for multi-tenant properties, where applicable. The market derived stabilized vacancy

and collection loss allowance is subtracted from the potential gross rent estimate to yield an indication of estimated annual effective gross rent to the property.

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

Allowable expenses and expense ratio estimates are based on a study of the local market, with the assumption of prudent management. An allowance for non-recoverable expenses such as leasing costs and tenant improvements may be included in the expenses if typical. A non-recoverable expense represents costs that the owner pays to lease rental space. Relevant expense ratios are developed for different types of commercial property based on use and market experience. For instance, retail properties leased on a triple-net basis, whereby the tenant is responsible for all operating expenses, such as ad valorem taxes, insurance, and common area and property maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. As a result, expense ratios are implemented and estimated based on observed market experience in operating various types of commercial property.

Another form of allowable expense is the replacement of short-lived items (such as roof or floor coverings, air conditioning or major mechanical equipment or appliances) requiring expenditures of lump sum costs. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves. For some types of property, typical management does not reflect expensing reserves and is dependent on local and industry practices.

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

Return rates and income multipliers are used to convert operating income expectations into an estimate of market value for the property under the income approach. These include income multipliers, overall capitalization rates, and discount rates. Each of these multipliers or return rates are considered and used in specific applications. Rates and multipliers may vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market for individual income property types and uses. These procedures are supported and documented based on analysis of market sales for these property types.

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

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

At the present time, the only category of commercial properties that are put on a purely income approach are the hotels and low-income housing. The income is taken from the Hotel Occupancy Tax report which is turned into the State Comptroller by the hotel owner. Expense percentages are based on local information received as well as information from nearby appraisal districts and national resources such as PKF's Trends in the Hotel Industry. Capitalization rates are derived by taking previous rates used and adjusting for upwards or downwards local economies and economic trends for the different market areas.

### **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 / Validation section of this report, pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year in order to obtain relevant information which can be used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the Cost Approach, rates and multipliers used in the Income Approach, and as a direct comparison in the Sales Comparison Approach. Improved

sales are also used in ratio studies, which afford the appraiser an excellent means of judging the present level and uniformity of the appraised values.

### **Final Valuation Schedules**

Based on the market data analysis and review discussed previously in the cost, income and sales approaches, the cost and income models are calibrated and finalized. The calibration results are keyed to the schedules and models in the CAMA system for utilization on all commercial properties in the district. Market factors reflected within the cost and income approaches are evaluated and confirmed based on market sales of commercial and industrial properties. The appraisers review the cost, income, and sales comparison approaches to value for each of the types of properties with available sales information. The final valuation of a property is estimated based on reconciling these indications of value considering the weight of the market information available for evaluation and analysis in these approaches to value.

### **Statistical and Capitalization Analysis**

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

Appraisal statistics of central tendency and dispersion generated from sales ratios are calculated for each property type with available sales data. These summary statistics including, but not limited to, the weighted mean, provide the appraisers an analytical tool by which to determine both the level and uniformity of appraised value of a particular property type. The level of appraised values can be determined by the weighted mean for individual properties within a specific type, and a comparison of weighted means can reflect the general level of appraised value.

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

Potential gross rent estimates, occupancy levels, secondary income, allowable expenses (inclusive of non-recoverable and replacement reserves), net operating income and capitalization rate and multipliers are continuously reviewed. Income model estimates and conclusions are compared to actual information obtained on individual commercial and industrial income properties during the protest hearings process, as well as with information from published sources and area property managers and owners.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Office Review**

Office reviews are conducted throughout the year and may be completed on properties subject to field inspections and are performed in compliance with the guidelines required by the existing classification system. Office reviews may be performed using Pictometry to view changes to improvements when a change finder update has been conducted. If a property is determined to have a significant change, it is coded for a field review. If no significant change is observed, the review is recorded in the CAMA system with the date of review and appraiser responsible. If a property owner disputes the District's records in a protest hearing, CAMA may be altered based on the credibility of the evidence provided. Normally, a new field review is then required to verify this information for the current year's valuation or for the subsequent years' valuation.

In addition, if a building permit is filed for a particular property indicating a change in structure or characteristics, that permit is recorded in the property account and then coded for a field review.

### **Field Review**

The commercial appraiser is somewhat limited in the time available to field review all commercial properties of a specific use type. However, a major effort is made by the appraiser to field review all commercial properties on a three-year reappraisal plan and annually in economic areas experiencing large numbers of remodels, renovations, or retrofits, changes in occupancy levels or rental rates, new leasing activity, new construction, or wide variations in sale prices. Additionally, the appraiser frequently reviews subjective data items such as building class, quality of construction, condition, and physical, functional and economic obsolescence factors contributing significantly to the market value of the property. In some cases field reviews are warranted when sharp changes in occupancy or rental rate levels occur between building classes or between economic areas. With preliminary estimates of value in these targeted areas, the appraiser tests computer assisted values against their own appraisal judgment. While in the field, the appraiser physically inspects sold and unsold properties for comparability and consistency of values. The date of field inspection, extent of that inspection, and the appraiser responsible are listed in the CAMA system.

### **Final Review**

Final reviews are typically limited by the available market data presented for final value analysis. These reviews summarize the pertinent data of each property as well as comparing the previous value to the proposed value conclusions of the various approaches to value. These evaluations and reviews show proposed value changes, income model attributes or overrides, economic factor (cost overrides) and special factors affecting the property valuation such as new construction status, and a three years sales history (USPAP property history requirement for non-residential property). The appraiser may review methodology for appropriateness to ascertain that it was completed in accordance with USPAP or more stringent statutory and district policies. This review is performed after preliminary ratio statistics have been applied. If the ratio statistics are generally acceptable overall the review process is focused

primarily on locating skewed results on an individual basis. Previous values resulting from protest hearings are individually reviewed to determine if the value remains appropriate for the current year based on market conditions. Once the appraiser is satisfied with the level and uniformity of value for each commercial property within their area of responsibility, the estimates of value go to noticing. Each parcel is subjected to the value parameters appropriate for its use type.

## **PERFORMANCE TESTS**

The primary tool used to measure mass appraisal performance is the ratio study. A ratio study compares appraised values to market prices. In a ratio study, market values (value in exchange) are typically represented with the range of sale prices, i.e. a sales ratio study. Independent, expert appraisals may also be used to represent market values in a ratio study, i.e. an appraisal ratio study. If there are not enough examples of market price to provide a necessary sample size, independent appraisals can be used as indicators for market value. This can be particularly useful for commercial or industrial real property for which sales are limited. In addition, appraisal ratio studies can be used for properties statutorily not appraised at market value, but reflect the use-value requirement. An example of this are multi-family housing projects subject to subsidized rent provisions or other governmental guarantees as provided by legislative statutes (affordable housing) or agricultural lands to be appraised on the basis of productivity or use value.

Van Zandt CAD has adopted the policies of the IAAO STANDARD ON RATIO STUDIES, circa July 1999 regarding its ratio study standards and practices. Ratio studies generally have six basic steps: (1) determination of the purpose and objectives, (2) data collection and preparation, (3) comparing appraisal and market data, (4) stratification, (5) statistical analysis, and (6) evaluation and application of the results.

### **Sales Ratio Studies**

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

In many cases, field checks may be conducted to insure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics. These ratio studies aid the appraisers by providing an indication of market activity by economic area or changing market conditions (appreciation or depreciation).

## **Comparative Appraisal Analysis**

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

## **INDUSTRIAL REAL PROPERTY (F2)**

The plan provides for annual reappraisal of selected industrial real property appraised by the CAD. The CAD has a professional services contract with **Capitol Appraisal Group, LLC (CAGL)** to appraise these properties for the CAD.

- (1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Industrial properties are identified as part of the appraiser's physical inspection process each year and through submitted data by the property owner. The appraiser may also refer to legal documents, photography and other descriptive items.
- (2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Confidential rendition, assets lists and other confidential data also provide additional information. Subject property data is verified through previously existing records and through published reports.
- (3) Defining market areas in the district: Market areas for industrial properties tend to be regional, national and sometimes international. Published information such as prices, financial analysis and investor services reports are used to help define market area.
- (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: Among the three approaches to value (cost, income and market), industrial properties are most commonly appraised using

replacement/reproduction cost new less depreciation models because of readily available cost information. If sufficient income or market data are available, those appraisal models may also be used.

- (5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property and that are based on the most reliable data when multiple models are used. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process.

# **Business Personal Property Valuation Process**

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## **INTRODUCTION**

### **Appraisal Responsibility**

The Business Personal Property Valuation appraisers are responsible for developing equal uniform market values for business personal property. There are approximately 2400 Commercial (L1) Business Personal Property Parcels within the Van Zandt CAD territorial boundaries. Industrial Personal Property (L2) has been contracted to Capitol Appraisal Group LLC (see Industrial Personal Property section below).

There are four different personal property types appraised by the district's personal property section: Commercial Business Personal Property Accounts; Leased Assets; Vehicles and Aircraft; and Multi-location Assets.

- **Personnel** – The personal property accounts are appraised by one Business Personal Property Appraiser, and clerical assistance is extended by the Administrative Assistant.
- **Data** - The Business Personal Property Appraiser collects the field data and maintains the electronic property files making updates and changes gathered from field inspections, newspapers, property renditions, sales tax permit listings, Doing Business As (DBA's) or Assumed Name filings from the County Clerk Office, telephone listings, and interviews with property owners and internet site reviews. and local Chamber of Commerce information as well as industrial publications and listings.

## **VALUATION APPROACH**

### **SIC Code Analysis**

Business personal property is classified and utilizes a four-digit numeric code, called Standard Industrial Classification (SIC) codes that were developed by the federal government to describe businesses. These classifications are used by Van Zandt County Appraisal District to classify personal property by business type.

SIC code identification and delineation is the cornerstone of the personal property valuation system at the district. Most of the personal property analysis work done in association with the personal property valuation process is SIC code specific. SIC codes are delineated based on observable aspects of business use.

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

The highest and best use of property is the reasonable and probable use that supports the greatest income and the highest present value as of the date of the appraisal. The highest and best use must be physically

possible, legal, financially feasible, and productive to its maximum. The highest and best use of personal property is normally its current use.

## **DATA COLLECTION/VALIDATION**

### **Data Collection Procedures**

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

### **Sources of Data**

#### **Business Personal Property**

The district's property characteristic data was collected through a massive field data collection effort coordinated by the district over the recent past and from property owner renditions. From year to year, reevaluation activities permit district appraisers to collect new data via an annual field inspection. This project results in the discovery of new businesses, changes in ownership, relocation of businesses, and closures of businesses not revealed through other sources. Tax assessors, city and local newspapers, local telephone books, assumed names, Abandonment of Names and Doing Business As documents filed with the County Clerk and the public often provide the district information regarding new personal property and other useful facts related to property valuation.

#### **Vehicles**

An outside vendor provides Van Zandt County Appraisal District with a listing of vehicles within the jurisdiction. The vendor develops this listing from the Texas Department of Transportation (TXDOT) Title and Registration Division records. Other sources of data include property owner renditions and field inspections.

#### **Leased and Multi-Location Assets**

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

## **VALUATION AND STATISTICAL ANALYSIS**

### **Cost Schedules**

Cost schedules are developed based on the SIC code by the Property Tax Division of the Comptroller's Office and by district personal property valuation appraisers. The cost schedules are developed by analyzing cost data from property owner renditions, hearings, state schedules, and published cost guides. The cost schedules are reviewed as necessary to conform to changing market conditions. The schedules are typically in a price per square foot format, but some exception SIC's are in an alternate price per unit format, such as per room for hotels.

## **Statistical Analysis**

Summary statistics including, but not limited to, the median, weighted mean, and standard deviation provide the appraisers an analytical tool by which to determine both the level and uniformity of appraised value by SIC code. Review of the standard deviation can discern appraisal uniformity within SIC code.

## **Depreciation Schedule and Trending Factors**

### Business Personal Property

Van Zandt CAD's primary approach to the valuation of business personal property is the cost approach. The replacement cost new (RCN) is either developed by property owner reported historical cost or from CAD developed valuation models. The trending factors used by the CAD to develop RCN are based primarily utilizing Marshall and Swift data as well as other commonly used published valuation guides.

The percent good depreciation factors used by Van Zandt CAD are also based on published valuation guides with some modifications applied for the rural market conditions and actual service life of business personal property as opposed to a more urban region with a more active market resulting in shorter service life of said property.

The percent good depreciation factors are used to develop a present market value by year of acquisition, as follows:

MARKET VALUE ESTIMATE = ORIGINAL/ACQUISITION COST X PERCENT GOOD FACTOR

The percent good depreciation factors are applied universally and are used to ensure that estimated values are uniform and consistent within the market and reflect current economic pressures of supply and demand.

## **Computer Assisted Personal Property Appraisal (CAPP)**

The CAPP valuation process has two main objectives: 1) Analyze and adjust estimated asset cost with existing SIC models. 2) Develop new models for business classifications not previously integrated into CAPP. Van Zandt CAD is utilizing the CAPP system with its more sophisticated data capabilities to review for accuracy of SIC code, square footage, field data, and original cost information. This endeavor will require the input of a good deal of information into the computer system but should assist greatly in the creation and refinement of Models by using actual original cost data to derive a typical replacement cost new (RCN) per square foot for a specific category of assets. The RCN per square foot is depreciated by the estimated age using the depreciation table adopted for the tax year.

The data sampling process is conducted in the following order: 1) Prioritizing Standard Industrial Classification (SIC) codes for model analysis. 2) Compiling the data and developing the reports. 3) Field checking the selected samples. The models will be built and adjusted using internally developed software as opposed to the old manual calculations. The models will then be tested against the previous year's data. The typical RCN per square foot (or applicable unit) will then be determined by a statistical analysis of the available data.

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

### Vehicles

Value estimates for vehicles are provided by an outside vendor and are based on NADA published book trade in values, and there are also considerations available for high mileage and excessive usage. Vehicles that are not valued by the vendor are valued by an appraiser using percent good depreciation factors to develop present value or published guidelines.

### Leased and Multi-Location Assets

Leased and multi-location assets are valued using the percent good depreciation factors to develop present value as above. If the asset to be valued in this category is a vehicle, then NADA trade in values are used. Assets that are not valued by the vendor are valued by an appraiser using the percent good depreciation factors to develop present value or published guides.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Office Review**

#### Business Personal Property

A district valuation computer program exists in a mainframe environment and will be utilized in the future to identify accounts in need of review based on a variety of conditions. Property owner renditions, accounts with field or other data changes, accounts with prior hearings, new accounts, and SIC cost table changes will all be considered. The accounts will be processed by the valuation program and will pass or fail present tolerance parameters by comparing appraised values to prior year and model values. The appraisers will review accounts that fail the tolerance parameters.

## **PERFORMANCE TESTS**

### **Ratio Studies**

Each year the Property Tax Division of the state comptroller's office conducts a property value study (PVS). The PVS is a ratio study used to gauge appraisal district performance. Results from the PVS play a part in school funding. Rather than a sales ratio study, the personal property PVS is a ratio study

using state cost and depreciation schedules to develop comparative personal property values. These values are then compared to Van Zandt CAD personal property values and ratios are indicated.

## **INDUSTRIAL PERSONAL PROPERTY (L2)**

The plan provides for annual reappraisal of all industrial personal property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.

- (1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Through inspection the appraiser identifies personal property to be appraised. The appraiser begins with properties from the previous tax year and identifies new properties from visual identification and/or publications, newspaper articles, or information obtained through the interview of property owners. The appraiser may also refer to other documents, both public and also confidential, to assist in identification of these properties. Such documents might include but are not limited to the previous year's appraisal roll, vehicle listing services and private directories.
- (2) Identifying and updating relevant characteristics of each property in the appraisal records: Data identifying and updating relevant characteristics of the subject properties are collected as part of the inspection process through directories and listing services as well as through later submissions by the property owner, sometimes including confidential rendition. These data are verified through previously existing records and through public reports.
- (3) Defining market areas in the district: Market areas for industrial personal property are generally either regional or national in scope. Published price sources are used to help define market areas.
- (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics. Personal property is appraised using replacement/reproduction cost new less depreciation models. Income approach models are used when economic and/or subject property income is available, and a market data model is used when appropriate market sales information is available.
- (5) Comparison and Review: The appraiser reconciles multiple models by considering the model that best addresses the individual characteristics of the subject property. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process.

# Minerals (Oil and Gas Reserves) Valuation Process

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## INTRODUCTION

### **Appraisal Responsibility**

Minerals-in-place (oil and gas reserves) are real property. Appraisal of minerals, oil and gas reserves, is based on estimating the present value of the economically recoverable reserves of oil and gas. Mineral rights are property rights and may be separable property interests from the land surface property rights. Minerals being produced are a tangible asset and are appraised for ad valorem taxation. The valuation of minerals-in-place is based on estimating the discounted net present value of the oil and gas production over the economic life of the well(s). Basically, this method of valuation is an income approach using discounted cash flow analysis methodology. Oil and Gas Properties are also marketed based on proven reserves and the unit of comparison in this market is considered in barrels of oil or in cubic feet of natural gas. The market approach is based on sales of property based on barrels of proven reserves.

Mineral interests are commonly divided into property interest known as working interests and royalty interests. The valuation of this property begins with the valuation of the mineral lease and is divided into the property interests according to division orders for each lease. It is the goal and purpose of the CAD to identify every producing mineral property interest listed on the roll.

### **Appraisal Resources**

The plan provides for annual reappraisal of all oil and gas property appraised by the CAD. The CAD has a professional services contract with **Capitol Appraisal Group, LLC (CAGL)** to appraise these properties for the CAD.

- (1) Identification of new property and its situs. As subsurface mineral properties lie within the earth, they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, CAGL obtains monthly oil and gas lease information from the Railroad Commission of Texas [RRC] to compare against oil and gas properties already identified. The situs of new properties is determined using plats and W-2/G-1 records from the RRC, as well as CAGL's in-house map resources.
- (2) Identifying and updating relevant characteristics of all oil and gas properties to be appraised. Relevant characteristics necessary to estimate value of remaining oil or gas reserves are production volume and pattern, product prices, expenses borne by the operator of the property, and the rate at which the anticipated future income should be discounted to incorporate future risk. CAGL obtains information to update these characteristics annually from regulatory agencies such as the RRC, the Comptroller of Public Accounts, submissions from property owners and operators, as well as from published investment reports,

licensed data services, service for fee organizations and through comparable properties, when available.

- (3) Defining market areas in the district and identifying property characteristics that affect property value in each market area. Oil and gas markets are regional, national and international. Therefore, they respond to market forces beyond defined market boundaries as observed among more typical real properties.
- (4) Developing an appraisal approach that best reflects the relationship among property characteristics affecting value and best determines the contribution of individual property characteristics. Among the three approaches to value (cost, income and market), the income approach to value is most commonly used in the oil and gas industry. Through use of the discounted cash flow technique in particular, the appraiser is able to bring together relevant characteristics of production volume and pattern, product prices, operating expenses and discount rate to determine an estimate of appraised value of an oil or gas property.
- (5) Comparison and Review. Use of the income approach is the first step in determining an estimate of market value. After that the appraiser reviews the estimated market value compared to its previous certified value and also compares it to industry expected payouts and income indicators. The appraiser examines the model's value with its previous year's actual income, expecting value to typically vary within in a range of 2-5 times actual annual income, provided all appropriate income factors have been correctly identified. Finally, periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser further expand the review process.

# Utility Property Valuation Process

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## INTRODUCTION

### Appraisal Responsibility

Utility properties are the tangible assets of various businesses including electric production, transmission, and distribution companies, railroads, petroleum product gathering and delivery pipelines, telephone and communication providers and others. The valuation of these properties is considered to be complex due to the involvement of both tangible and intangible property elements that comprise these businesses and due to the size of some of the utilities that are regional and national companies. The appraisal of these companies becomes complex when considering the valuation of the property as a unit in place, evaluating the property by the approaches to value at the company level. Once the value of the unit is estimated, the estimated market value is allocated based on the tangible property assets that are located within Van Zandt CAD.

### Appraisal Resources

- (a) The plan provides for annual reappraisal of all utility, railroad and pipeline property appraised by the CAD. The CAD has a professional services contract with **Capitol Appraisal Group, LLC (CAGL)** to appraise these properties for the CAD.
  - (1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and also confidential to assist in identification of these properties. Due to the varied nature of utility, railroad, and pipeline properties there is no standard data collection form or manual. New permitting documents on record with the Railroad Commission of Texas provide a source to identify potential new pipeline projects but does not provide indication if the project was actually started, completed, or a distinct location of the proposed project. Every effort is made to discover new utility, railroad, and pipeline properties through personal observation combined with permitting documents.
  - (2) Identifying and updating relevant characteristics of each property  
In the appraisal records: The appraiser identifies and updates relevant characteristics through data collected as part of the inspection process and through later submissions by the property owner, sometimes including confidential rendition. Additional data are obtained through public sources, regulatory reports and through analysis of comparable properties.

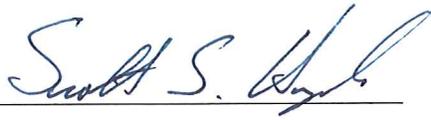
- (3) Defining market areas in the district: Market areas for utility, railroad and pipeline property tend to be regional or national in scope. Financial analyst and investor services reports are used to help define market areas.
- (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: For all three types of property, the appraiser must first form an opinion of highest and best use. Among the three approaches to value (cost, income and market), pipeline value is calculated using a replacement/reproduction cost new less depreciation model [RCNLD]. In addition to the RCNLD indicator, a unit value model may also be used if appropriate data are available. Utility and railroad property are appraised in a manner similar to pipeline except that the RCNLD model is not used.
- (5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property when multiple models are used. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process. These types of property are also subject to review by the Property Tax Division of the Texas Comptroller's Office through their annual Property Value Study.

## Contracted Appraisal Services Oversight

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The Chief Appraiser oversees the contracted appraisal services of the district. The Chief Appraiser organizes review with the Commercial Appraiser and Business Personal Property Appraiser of accounts contracted for appraisal by annually auditing random samples of Industrial Real, Industrial Personal, Mineral, and Utility property account types. When an account is audited, the valuation conclusions, situs, ownership, land and improvement data and descriptions, as well as supporting data are all reviewed for accuracy and equity. Atypical or significant changes in value to existing accounts are also flagged for review. When accuracy or equity errors are identified, the Chief Appraiser and Commercial Appraiser work with the contracted appraiser to correct all issues identified.

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Scott Hyde, RPA  
Chief Appraiser

Adopted by the Board of Directors 9-11-18  
Date

Edward Bailey  
Chairman

Tony Bulwa  
Acting Secretary

- Primary Market Areas
- Secondary Market Areas

# VAN ZANDT COUNTY

## REAPPRAISAL PLAN

### 2019 - 2020

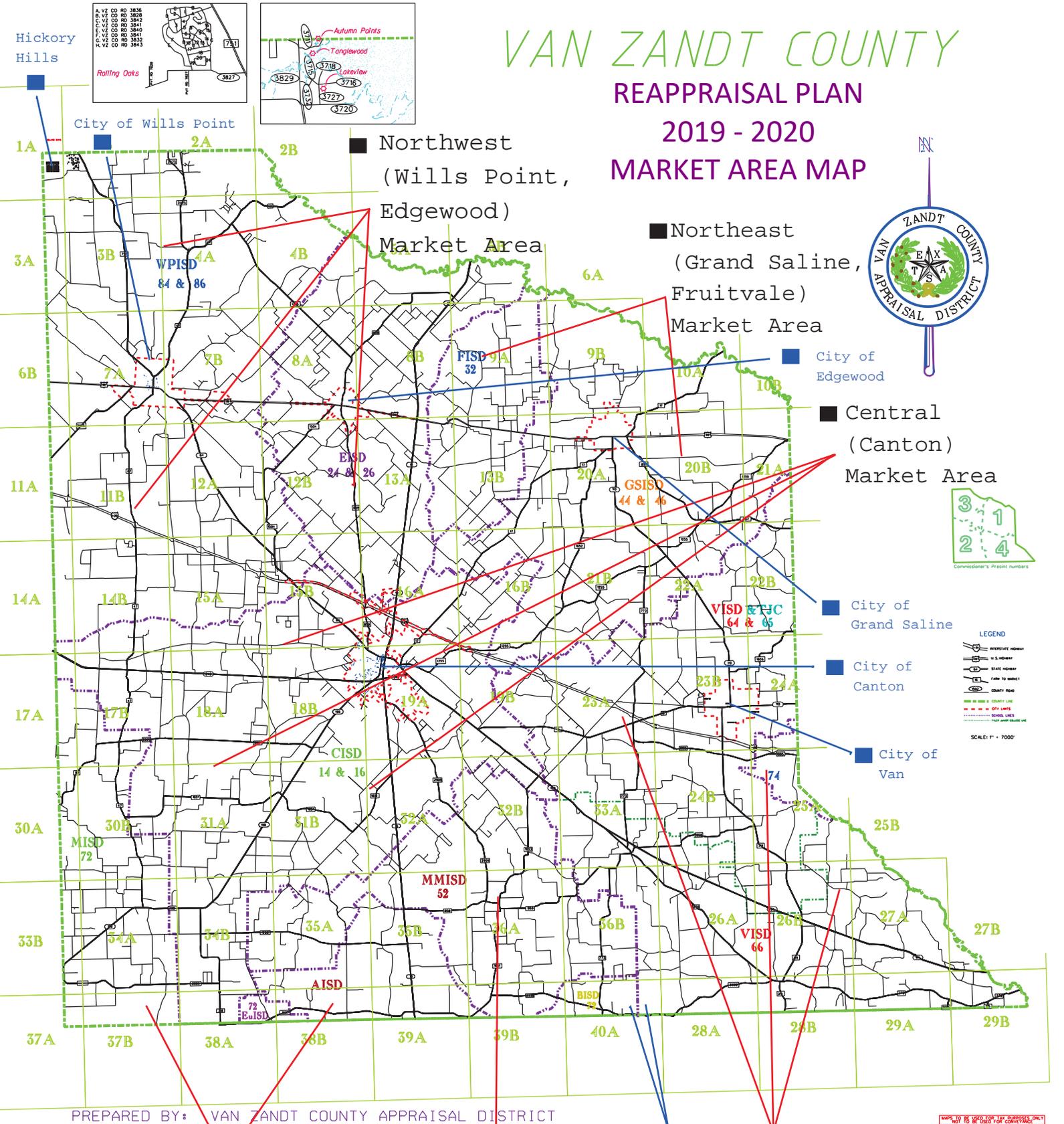
### MARKET AREA MAP



**LEGEND**

- Interstate Highway
- U.S. Highway
- State Highway
- Water to water
- County Road
- City Limits
- School Lines
- Precinct Boundaries

SCALE: 1" = 7000'



PREPARED BY: VAN ZANDT COUNTY APPRAISAL DISTRICT

MADE BY: T. G. GIBSON FOR THE DISTRICT ONLY

- Southeastern Overlapping Market Area
- Southcentral (Martins Mill) Market Area
- Southeast (Van, Lindale, Brownsboro) Market Area
- Calendar Lake & Hickory Hills