MILAM APPRAISAL DISTRICT

2025-2026 Reappraisal Plan

Proposed August 7, 2024


MILAM
APPRAISAL DISTRICT

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APPRAISAL DISTRICT

Preface

This document is intended to provide all interested parties a clear and concise view of the District's responsibilities and the activities planned for 2025 and 2026 appraisal years.

In compliance with Section 6.05(i) of the Property Tax Code of the State of Texas, the board of directors of the Milam Appraisal District conducted a public hearing to consider the adoption of the following reappraisal plan.

Mission

The mission of Milam Appraisal District is to discover, list and appraise property accurately, ethically, and impartially in order to estimate the market value of all property within the boundaries of the county for ad valorem tax purposes. The district must ensure that each taxpayer is given the same consideration, information, and assistance as the next. This will be done by administering the laws under the property tax system.

Personnel must be well educated and informed regarding laws, appraisal practices and the rights of taxpayers and the entities alike. This will be accomplished through attendance of key personnel to workshops sponsored by the Texas Association of Appraisal Districts, as well as workshops conducted online for in-house staff development. Additionally, the staff will promote and adhere to professional standards and ethics as set forth by the Texas Department of Licensing, and the Appraisal Standards Board of the Appraisal Foundation (USPAP), and the Texas Association of Appraisal Districts.

Legal Mandates

Milam Appraisal District was formed by the Texas Legislature in 1979 and is charged with the appraisal of all taxable property within the county.

The Texas Property Tax Code governs the legal, statutory, and administrative requirements of the appraisal district. The appraisal district is responsible for local property tax appraisal, including the qualifications for special use valuation determination (e.g., wildlife and "ag" valuation) as well as exemption administration for the nineteen taxing units located in part or whole in the county. Each taxing unit 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. The District also determines eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, and charitable and religious organizations.

Section 23.01(b) requires the appraisal district to determine market value of property according to generally accepted appraisal methods and techniques. Mass appraisal standards must comply with the Uniform Standards of Professional Appraisal Practice (USPAP).

According to Section 6.05 (i) of the Property Tax Code, the district is required to hold public hearings and adopt a reappraisal plan by resolution before September 15 of even numbered years. The plan must list in detail the district's intentions for reappraisal of property over the following biennial period. Notice must be given at least 10 days before the hearing to the

presiding officers of each of the district's participating taxing units. After adoption, the adopted plan must be delivered to each of the presiding officers of each of the district's participating taxing units as well as to the Texas Comptroller of Public Accounts within 60 days of approval.

The reappraisal plan is made under the guidelines of current law. This plan may be revised if the Legislature materially changes current laws governing appraisal districts, in the unfortunate event of a natural disaster, or other unforeseeable event. Any proposed revision is subject to public notification and ratification by the Board of Directors of the Milam Appraisal District.

Organization

Appraisal districts were created by the Texas Legislature in 1979 to provide uniform and equal appraisals of taxable properties at market value for ad valorem tax purposes. The district is governed by a board of directors elected by the governing bodies of the participating taxing units. The county tax assessor/collector serves on the board as an ex officio member.

The Board of Directors is responsible for:

- Establishing the district's office
- Adopting the district's annual operating budget
- Contracting for necessary services
- Hiring the chief appraiser
- Appointing the Appraisal Review Board (ARB)
- Appointing the Agricultural Advisory Board
- Making general policy of the district's operation

The board's authority over appraisals is limited. The board does not appraise property or review values on individual properties. These tasks are legally assigned to the chief appraiser and the Appraisal Review Board (ARB). The board's authority over appraisals comes through its duties to contract and budget for the district's operation.

The ARB is appointed by the Board of Directors to hear and settle formal taxpayer protests. The board's decisions are binding to the district's records, unless ordered to be changed due to lawsuits or arbitrations initiated by the property owner. The district may also file suit in district court to have an ARB decision overturned if the Chief Appraiser and Board of Directors so choose.

The Agricultural Advisory Board is appointed by the Board of Directors, according to the recommendation of the Chief Appraiser in accordance with Section 6.12 of the Property Tax Code. Its purpose is to advise the Chief Appraiser on the valuation and use of land that may be designated for agricultural use or that may be open space agricultural land within the district.

The Chief Appraiser is the chief administrator of the district and is responsible for the district's appraisal operations. The appraisal district staff is employed and directed by the Chief Appraiser.

Properties Appraised

The District appraises all taxable property for the following taxing units:

Milam County	Buckholts ISD
	Cameron ISD
City of Buckholts	Gause ISD
City of Cameron	Milano ISD
City of Milano	Rockdale ISD
City of Rockdale	Thorndale ISD
City of Thorndale	
Milam County ESD #1	Donahoe Watershed
Rockdale Hospital District	Elm Creek Watershed

Additionally, the district provides appraisals of taxable property for the following entities whose territory extends into Milam County.

Bartlett ISD
Holland ISD
Lexington ISD
Rogers ISD
Rosebud ISD

Properties Appraised (continued)

The 2024 certified appraisal roll consists of 33,139 parcels. At the time of this document's creation, the breakdown of these parcels is as follows:

Type	Parcels
Single Family Residential	6,954
Multi-Family Residential	102
Mobile Homes	1,262
Vacant Lots	1,490
D1 Agriculture	8,272
D2 Improvement on Qualified Ag	3,985
Rural Land, Non-Qualified Ag	5,941
Commercial	843
Minerals	8,475
Utilities	276
Special Inventory	13
Business Personal Property	842
Industrial	26
Industrial BPP	248
Exempt Property	2,327
TOTAL	**33,139**

Appraisal Frequency and Method Summary

All properties are physically examined at least once every three years. The universe of property is divided by market areas. The market areas are defined by the school district that the property is in. Each school district is a separate market area; however, sales from more than one market may be used when market areas have similar characteristics. The market areas are statistically analyzed annually to verify appraisal performance. If sales indicate that current appraised values are not at market value, adjustments are made to the area using a process outlined in detail in the Market Analysis section of this report.

The appraisers performing re-inspection via aerial imagery review four different directions of a property, looking for changes that might have occurred to the property since the last inspection, measuring the two most significant exterior walls of each improvement, and verifying that all improvements are on the appraisal roll and listed correctly.

Appraisers in the field have property records that contain specific information regarding the property being appraised in either a paper format or electronically on the pen pad device. These records contain brief legal descriptions, ownership interest, property use codes, property addresses, land size and characteristics, sketches of improvements as well as any available detailed information of the improvements.

Regardless of method, re-inspections require appraisers to check all information on the property and the property record, and to update the appraisal roll as necessary. The appraiser's primary duty is to ensure the accuracy of property records. Appraisers note their opinion of classification, condition, and characteristics of the property. If changes in the size of any structures are observed, the appraiser measures and lists those dimensions. Appraisers take digital photos of each property field inspected. All work is reviewed by quality control measures.

In addition to reappraisal, all exemptions, and special valuations for properties in the reappraisal area are reviewed to verify qualification. For instance, properties with a homestead exemption should not be vacant. Properties receiving "ag" value should show signs of agricultural use. The appraiser notifies the records technician of properties in question.

- **Residential Property** – Residential property is physically examined by one of two methods, aerial review, or field inspection.
    - Aerial review involves reviewing neighborhood oblique images from four different directions of a property, looking for changes that might have occurred to the property since the last inspection, measuring the two most significant exterior walls of each improvement, and verifying that all improvements are on the appraisal roll and listed correctly.
    - Field inspection involves walking in front of each home, and to the rear if accessible, looking for changes that might have occurred to the property since the last inspection, measuring the two most significant exterior walls of each improvement, and verifying that all improvements are on the appraisal roll and listed correctly. Exterior pictures are taken any time an appraiser conducts a field check.

  The District collects building permit and utility installation reports to locate new improvements. Properties with a building permit or utility connection are reviewed for the current appraisal year.

- **Commercial and Business Personal Property** – Commercial real estate is observed by onsite review. Real estate accounts are analyzed against sales of similar properties in the county as well as similar communities in surrounding counties. The income approach to value is utilized to appraise properties where the highest and best use is as income producing property, such as shopping centers, apartment complexes, motels and hotels, and other types of property that typically sell based on net operating income. The cost approach is typically used to value industrial properties due to the lack of reliable income data and comparable sales. This is the recommended approach of the International Association of Assessing Officers (IAAO).

  The appraiser concurrently updates Business Personal Property (BPP) records by adding new businesses to the appraisal roll and deleting businesses that no longer exist. A rendition is left for new businesses. The appraisers walk into businesses to make quality and density observations. Similar businesses are analyzed annually to determine appraisal consistency. Businesses are categorized using the North American Industry Classification System. Renditions provide additional information on which to base values of BPP accounts.

Appraisal Frequency and Method Summary (continued)

- **Minerals** – Milam Appraisal District contracts with Pritchard & Abbott of Houston for the valuation of mineral accounts. Producing oil and gas wells are appraised annually. The most recent production data available from the Texas Railroad Commission is downloaded into appraisal software that estimates economically recoverable reserves. Those reserves are then valued based upon state mandated pricing using the previous year's average of oil and gas values. A discount is applied over the anticipated life of the well in order to consider the value of money over time to recover those reserves. Each producing lease is valued as a unit. The unit value is then divided among owners listed in the division order, equal to their percentage of interest in the lease.

- **Utilities and Pipelines** – Utility companies and pipelines are appraised annually by Pritchard & Abbott. A utility company's total value in the state is estimated using cost, market, and income approaches. Then the entire value is allocated using the components that have situs in the tax units of Milam Appraisal District. Components include such things as miles of transmission lines, miles of distribution lines, substations, and the like for an electric utility.

- **Industrial** – Industrial real estate and personal property is appraised annually by Pritchard & Abbott. The methods used in local commercial appraisal are applied to industrial properties. The appraisers employed by P&A have the education and experience necessary for accurate estimates of value.

Performance Analysis

In addition to sales ratio studies performed by the appraisal district, the State Comptroller's Property Tax Assistance Division (PTAD) conducts a biannual property value study (PVS) of each appraisal district. As part of this biannual study, the code requires the Comptroller to use sales and recognized auditing and sampling techniques to test the validity of school district taxable values in each appraisal district and determine the level and uniformity of appraisal.

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 analyses 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 the price-related differential (PRD) for properties overall and by state category.

Each of the eleven (11) independent school districts in the Appraisal District is tested biannually. The preliminary results of this study are released February 1 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) the following July of each year. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

Performance Analysis (continued)

The results of this test are very important. They are used to determine the value assignment to each ISD that is used in the state funding formula. A determination that the CAD has appraised properties in an ISD outside the confidence interval of 5% greater or lesser than the value determined by the Property Tax Assistance Division (PTAD), results in a value assignment by the PTAD and lower funding to school districts on its value determination.

The results of Milam Appraisal District sales ratio studies, the Property Value Study, and the prior year's Mass Appraisal Report are analyzed to determine if there are any areas where appraisal performance can be improved. Currently, results indicate that properties are being valued within IAAO standards for both market value and equity, and that there are no areas that require additional resources. This is continually monitored to ensure quality appraisal performance.

Additionally, beginning in 2010, the PTAD conducts a biannual review of the governance of each appraisal district, taxpayer assistance provided, and the operating and appraisal standards, procedures, and methodology used by the district. This study is commonly referred to as the M.A.P. Review. Milam Appraisal District was last reviewed in 2022. The final results of that study will be released in February of 2023.

Personnel Resources

The appraisal district staff consists of ten (1) employees with the following classifications:

Position	FTE
Chief Appraiser	1
Deputy Chief Appraiser	1
Deputy Chief Administrator	1
Appraisers	4
Deeds Specialist/TLO	1
Special Appraisal Specialist	1
Homestead Exemptions Specialist	1
HR/ Fiscal Administrator	1
TOTAL	**11**

The Chief Appraiser is the chief administrative officer of the appraisal district. The Chief Appraiser employs and directs the District's staff, oversees all aspects of the appraisal district operations and performs either directly or through the District staff, a variety of operations.

The Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling of District operations. The appraisal department is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, mineral, utilities, and industrial. Presently all property in the District, with the exception of oil and gas pipelines, minerals, utilities, and industrial property is appraised by the Milam Appraisal District staff. 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 (TDLR). Support functions including records maintenance, exemptions processing, ownership transfers, information and assistance to property owners, and hearings are coordinated by personnel in the records department.

Staff Education and Training

All personnel performing appraisal valuation work are registered with the Texas Department of Licensing and Regulation (TDLR). These personnel are required to take appraisal courses to achieve the designation of Registered Professional Appraiser within five years of employment as an appraiser. After they are awarded their license, they must receive additional training of a minimum of 30 hours of continuing education units every two years. Failure to meet these minimum standards results in the termination of the employee.

Additionally, all appraisal personnel receive extensive training in data gathering processes including data entry into pen pads used in field work and statistical analysis of all types of property to ensure equality and uniformity. On the job training for new appraisers is delivered by management and experienced appraisers. The Chief Appraiser meets regularly with staff to introduce new procedures, provide training, and monitor appraisal activity to ensure standardized appraisal procedures are being followed by all personnel.

Milam Appraisal District personnel interact with other assessment officials through professional trade organizations including the International Association of Assessing Officers (IAAO), Texas Association of Assessing Officers (TAAO), Texas Association of Appraisal Districts (TAAD) and the Texas Department of Licensing and Regulation (TDLR).

Information Systems

The District is responsible for establishing and maintaining approximately 28,000 real and personal property accounts covering 1,019 square miles within Milam County. This data includes property characteristics, ownership, and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review. Sales are routinely validated during a separate effort. General trends in employment, interest rates, new construction trends, cost and market data are acquired through various sources, including internally generated questionnaires to buyers, university research centers, and market data centers and vendors.

The District utilizes a Computer Assisted Mass Appraisal (CAMA) system developed and maintained by Harris True Automation. This CAMA system is a state-of-the-art mass appraisal system that has enabled district appraisers to work more accurately and efficiently and is fully integrated with the District's geographic information system (GIS).

The District has a geographic information system (GIS) that maintains cadastral maps and various layers of data and aerial photography. Additionally, the District uses aerials and oblique imagery from EagleView that have increased efficiency and accuracy in the reappraisal process.

The District's website makes a broad range of information available for public access, including information on the appraisal process, property characteristic data, protests and appeal procedures. Downloadable forms, including exemption applications and business personal property renditions, are also available.

The District contracts with BIS Consulting for IT maintenance and support, GIS updates, and website hosting. District staff works with BIS Consulting to maintain the District's data processing systems, software applications, website, and the GIS system. The District's primary database is accessed with Harris True Automation software and a SQL database run on a Dell Server. Mapping and GIS are also run on this server. Harris True Automation provides software services and support for appraisal applications.

After reviewing the prior reappraisal plans and prior reappraisal efforts, the Milam Appraisal District Board of Directors and management believe the information systems have the necessary resources to successfully complete the current and ongoing reappraisal efforts while maintaining the high level of appraisal performance the citizens of Milam County have come to expect.

The reappraisal area for **2025** will be:

- Rockdale ISD (SRD) Parcel Count 7,585
- Thorndale ISD (STH) Parcel Count 2,774
- Lexington ISD (SLX) Parcel Count 54
- Milano ISD (SMI) Parcel Count 2,389

The 2025 reappraisal will involve the inspection of approximately 12,802 property accounts in the reappraisal ISDs, based on 2024 totals. Additionally, District appraisers will inspect any accounts in the remaining ISDs that have permit activity.

District appraisers will also be responsible for inspecting and maintaining business personal property records, inspecting land designated for special agricultural valuation, and administering special inventory valuations.

This effort will be conducted beginning in August of 2024 to February 1, 2025. Field work and re-inspections will be substantially complete by February 1, 2025, allowing sufficient time for market area analysis and schedule updates from February 1 to April 1. The time period of April 1 to July 25, 2025, will be reserved for property owner protests. Milam Appraisal District typically has 2,200 property owner protests annually.

The appraisal duties will be divided among the three appraisers. Generally, vacant rural land will be reviewed first by aerial imagery. Next, all improved properties will be reviewed onsite. Lastly, onsite reviews to confirm agricultural use, permit activity, new construction, demolitions, or other reported changes will be performed. The method of inspection may vary depending on property access, weather conditions, or other factors.

2026 Reappraisal

The reappraisal area for **2026** will be:

- Cameron ISD (SCA) Parcel Count 7,271
- Gause ISD (SGA) Parcel Count 1,195
- Bartlett ISD (SBA) Parcel Count 486
- Buckholts ISD (SBU) Parcel Count 926
- Holland ISD (SHO) Parcel Count 71
- Rogers ISD (SRG) Parcel Count 194
- Rosebud-Lott ISD (SRB) Parcel Count 434

The 2026 reappraisal will involve the inspection of approximately 10,577 property accounts in the reappraisal ISDs, based on 2024 totals. Additionally, District appraisers will inspect any accounts in the remaining ISDs that have permit activity.

District appraisers will also be responsible for inspecting and maintaining business personal property records, inspecting land designated for special agricultural valuation, and administering special inventory valuations.

This effort will be conducted beginning in August of 2025 to February 1, 2026. Field work and re-inspections will be substantially complete by February 1, 2026, allowing sufficient time for market area analysis and schedule updates from February 1 to April 1. The time period of April 1 to July 25, 2026, will be reserved for property owner protests. Milam Appraisal District typically has 2,200 property owner protests annually.

The appraisal duties will be divided among the three appraisers. Generally, vacant rural land will be reviewed first by aerial imagery. Next, all improved properties will be reviewed onsite. Lastly, onsite reviews to confirm agricultural use, permit activity, new construction, demolitions, or other reported changes will be performed. The method of inspection may vary depending on property access, weather conditions, or other factors.

Appraisal Responsibilities

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

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

The Property Tax Code defines special appraisal provisions for the valuation of residential homestead property (Section 23.23), productivity (Section 23.41), real property inventory (Section 23.12), dealer inventory (Section 23.121, 23.124, 23.1241, and 23.127), nominal (Section 23.18) or restricted use properties (Section 23.83) and allocation of interstate property (Section 23.03). The owner of inventory may elect to have the inventory appraised at its market value as of September 1st of the year preceding the tax year to which the appraisal applies by filing an application with the Chief Appraiser by July 31st.

The Texas Property Tax Code, under Section 25.18, requires each appraisal office to implement a plan to reinspect and update appraised values for real property at least once every three years. Minerals, utility, and industrial properties are appraised every year. The District's current policy is to conduct a general market value review of all taxable property every year, with a re-inspection of specified ISDs each year on a three year rotating basis.

The appraised value of real estate is calculated using specific information about each property. Using computer-assisted mass appraisal (CAMA) programs, and recognized appraisal methods and techniques, we compare information with the data for similar properties, and with recent cost and market data. The District follows the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable. More specific information concerning the appraisal of property is found in the Milam Appraisal District Appraisal Manual and is incorporated by reference in this reappraisal plan.

Pilot Studies

Whenever new procedures are considered, it is prudent to conduct a pilot study of the new procedures, including a ratio study in one or two areas of a jurisdiction to ensure the new procedures produce accurate and reliable results prior to full implementation. A pilot study can be a useful tool in developing or modifying the new procedures or for determining the contemplated procedures do not work as anticipated.

Per IAAO standards, pilot studies are considered for ***major*** change in procedures. Milam Appraisal District does not anticipate changes that will require a pilot study in the 2023-2024 reappraisal cycle.

Data Collection/Validation

Data collection and validation of taxable property involves maintaining accurate data characteristics of the property in the CAMA (Computer Assisted Mass Appraisal) system. The information contained in CAMA includes site characteristics, such as land size, topography, and soil type and improvement data, such as square foot of living area, year built, quality of construction, and condition.

The 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 an accurate and comprehensive physical description of the property appraised. Field appraisers are required to use uniform procedures and classifications to ensure the correct listing of property and uniformity of appraisals. The field appraisers' work is reviewed by records personnel to ensure accuracy and uniformity.

Data on individual properties is collected, compiled, and analyzed. Buildings and other improvements are inspected, measured, and classified. The appraiser estimates the effective age of improvements and determines the condition of the improvements. This data is used to compile depreciation (loss of value) tables and any notes pertaining to the improvements are made at this time.

Residential properties are classified for quality and whether frame or brick veneer. The classifications are a numerical system, ranging from 1 (lowest) to 6 (highest). The classes are based on the quality descriptions in the Marshall & Swift Residential Estimator guide. Appraisers may adjust for quality when necessary.

Commercial properties are classified by type such as restaurant, office, shopping center, etc. and further defined by quality of construction, from poor to excellent. Business personal property is classified by the North American Industry Classification System (NAICS).

Physical depreciation is calculated based on the effective age of improvements. Effective age is the age the property appears to be due to maintenance and upkeep. Effective age for a house that is properly maintained may be its actual or chronological age. However, if a structure suffers from deferred maintenance due to neglect, its effective age may be older than the actual age. Conversely, if a house is an older structure and has been remodeled or updated, its effective age may be less than its actual age.

Appraisers also estimate the condition of the property. Condition ranges from excellent to poor. Appraisers in the field usually inspect structures from the exterior. Unless specific information is known to the appraiser, the interior condition is assumed to be similar to the exterior.

Foundation failure may occur in varying degrees and may also result in loss of value. Milam Appraisal District makes allowance for foundation problems on a case-by-case basis. Additional depreciation may be estimated for a variety of reasons including functional obsolescence resulting from bad floor plans, super adequacies, or out of date construction methods. Economic obsolescence results from a loss of value to a property due to adverse influences from outside the physical boundaries of the property. Examples of economic obsolescence may be proximity to a landfill, residences located near a railroad track, etc.

Sources of Data

The sources of data collection are through property inspection, building permits, sales validation, newspapers and publications, and property owner correspondence. A principal source of data comes from building permits received from taxing jurisdictions that require property owners to take out a building permit. Permits are received and matched manually with the property's tax account number for data entry. Sales data is acquired through sales questionnaires from buyers and sellers and from real estate agents and appraisers. Soil surveys and agricultural surveys of farming and ranching property owners and industry professionals are helpful for calculating productivity value. The Texas Railroad Commission is the source for mineral production data and leasing information. Improvement cost information is gathered from *Marshall & Swift Valuation Service*. Income information is gathered by interviewing lessees, lessors, property managers, tax representatives, income surveys, and by monitoring sales activity of income producing real property.

Cost Schedules

The Milam Appraisal District replacement cost schedules include commercial and residential improvements. Commercial and residential schedules are based on *Marshall & Swift Valuation Service* and personal property schedules are based on the Property Tax Assistance Division (PTAD) appraisal manual and *Marshall & Swift*. Personal property renditions provided by property owners are also used in the valuation of business personal property. *Marshall & Swift Valuation Service* is a nationally based cost manual and is recognized throughout the nation by the real estate industry. The Cost manual is based on cost per square foot and also the unit in place method. The unit in place method involves the estimated cost by using actual building components. This national based cost information service provides the base price of buildings as per classification with modifications for characteristics that either enhance or detract from value. The schedule is then modified for location. Schedules may also be modified by use of local sales data to further ensure the accuracy of the schedules.

Milam Appraisal District valuation schedules are divided into three main classifications: Residential, Commercial and Business Personal Property. These schedules are based on the most appropriate data available. Miscellaneous special categories such as special inventory, restricted income apartments, and agricultural land are appraised using different techniques. Detailed information on the appraisal methods for the miscellaneous categories is included in the *Milam Appraisal District Appraisal Manual* and may be obtained upon request. Depreciation tables and schedules (loss of value schedules) are also included within these schedules. All schedules are reviewed at least once every three years.

Residential Schedules

Residential valuation schedules are cost based tables taken from *Marshall & Swift Valuation Service* adjusted to the local market. That is, the cost reflects actual replacement cost new of the subject property. Market research indicates that the common unit of comparison for new residential construction as well as sales of existing housing is the price paid per square foot. The value of extra items is based on their contributory value to the property. This value may be estimated by the price per square foot or a value of the item as a whole. This data is extracted from the market by paired sales analysis and conversations with local appraisers and brokers.

Residential Schedules (continued)

The residential schedules are based on the size, age and condition of structure, quality of construction, contributory value of amenities, and land value. Each of these variables has a direct impact on the cost of the property. The following is an example of each of the variables and how they may affect market value.

Quality of Construction – Residential construction may vary greatly in quality of construction. The type of construction affects the quality, the cost of material used, the quality of the workmanship, as well as the attention paid to detail. The cost and value of residential property will vary greatly depending on the quality of the construction. The classification schedule is based on the *Marshall & Swift* definitions of residential classes of dwellings with modifications for local market.

Size of Structure – The size of a structure also has a direct impact on its cost as well as value. The larger the structure, the less the cost per square foot. Milam Appraisal District schedules are graduated in size increments. The Property Tax Assistance Division (PTAD) and *Marshall & Swift* also support this economy of scale analysis.

Condition of Improvements – Milam Appraisal District rates conditions from poor to excellent. Properties that, in the opinion of the appraiser, are unusable may be given no value or salvage value.

Age of Structure – Milam Appraisal District residential depreciation schedules are based on *Marshall & Swift* and as stated above effective age and chronological age may be the same or different depending on the condition of the structure.

Amenities – As stated above, amenities are valued according to their contributory value to the whole. Examples of extra items include porches, decks, swimming pools, and tennis courts.

Land Value – Milam Appraisal District values land based on market transactions whenever possible. Specific land influences are used to adjust values for such factors as view, shape, size and topography. As there are not always market transactions available, other methods of land valuation may be used. The two most common methods are the land residual method and the land ratio method. We also use abstraction and allocation methods to ensure that the land values created best reflect the contributory market value of the land to the overall property value. Land schedules are available at the appraisal district office.

Commercial Schedules

Commercial properties are developed using *Marshall & Swift Valuation Service*. Replacement cost new is determined and then depreciation is applied using physical observation of the property.

Commercial schedules are based on the property type, size, age and condition of structure, quality of construction, contributory value of amenities, and land value. Each of these variables has a direct impact on the cost of the property.

Personal Property Schedules

The Personal Property Schedules value business furniture, fixtures, and equipment as well as inventory that is taxable by law.

Business personal property values are derived from several sources. Business owners are required by Texas Law to render their business personal property each year. It is the experience of the District that about 70% of business' render each year. Rendered values are used on business personal property if the value is reasonable for the type of business and is within acceptable ranges when compared to the Property Tax Assistance Division (PTAD) or *Marshall & Swift* personal property schedules for the type of business rendered. If the rendered value is not considered acceptable, Property Tax Assistance Division (PTAD) or *Marshall & Swift* schedules are used to estimate a value. Values on all business personal property not rendered are established using Property Tax Assistance Division (PTAD) or *Marshall & Swift* schedules for the type of business being valued. Depreciation is determined by the age of the property and its expected life. Schedules are available in the appraisal district office.

Business vehicles are valued based on *N.A.D.A. Used Car Guide and Commercial Truck Guide* wholesale value for the make, model, and age of the vehicle. The appraisal district uses a report on CD obtained from JUST Texas, which lists commercial vehicles registered in Milam County on January 1 of each year. This report uses the vehicle information number to determine make, model and vehicle characteristics to determine *N.A.D.A.* value. The District also obtains a CD from the State of Texas that lists vehicles registered in Milam County, regardless of registration type (e.g. personal, farm, commercial). In addition, we use the motor vehicle inquiry service from the Texas Department of Motor Vehicles to verify ownership as of January 1, to view original cost data, and date of sale. These reports along with renditions and physical observations are used to discover and list vehicles that are taxable within the county.

When adverse factors such as high mileage are known, then the appropriate adjustments are made to value.

Income Values

Income values are developed for any property type where the highest and best use is typically as income producing property and sufficient income information is available to accurately value the property type via the income approach.

Milam Appraisal District appraisers obtain income and expense information on a variety of properties through field inspections, the equalization phase, and market surveys. The use of the income approach to value is particularly useful for properties in which sales data is scarce and the market indicates the property is likely to sell for its income producing capacity.

Highest and Best Use Analysis

The highest and best use of real estate is defined as the most reasonable and probable use of land that will generate the highest return to the property over a period of time. This use must be legal, physically possible, economically feasible and the most profitable of the potential uses. An appraiser's identification of the property's highest and best use is always a statement of opinion never a statement of fact.

Highest and Best Use Analysis (continued)

In order to complete the highest and best use analysis of a property, an appraiser must estimate its highest and best use as if the land were vacant. This is the highest value the land could have if it were available for any legal, physically possible and economically feasible kind of development.

In determining highest and best use, preliminary judgments are made in the field by appraisers. Milam Appraisal District property records contain information regarding lot size and frontage; therefore, appraisers normally make judgments on possible use of sites in the field. Economically feasible and most profitable uses are determined by observing surrounding property. However, changes in property use require a more detailed and technical highest and best use analysis. These studies are usually performed in the office.

Beginning in 2010, a Constitutional amendment was ratified that overrides the concept of highest and best use in regards to properties receiving a residential homestead exemption. These properties now must be valued as residential property regardless of their highest and best use or true market value.

Sales

Sales data is gathered by sending sales letters to the buyers of properties that the District knows changed ownership. Sales are confirmed from the direct parties involved whenever possible. Confirmation of sales from local real estate appraisers is also considered a reliable source.

Sales data is compiled, and the improved properties are physically inspected and photographed if needed. All data listed on the property record is verified and updated as needed including building classification, building size, additions or added out buildings, condition of structures and any type of change in data or characteristics that would affect the value of the property.

Individual sales are analyzed to verify whether they meet the definition of market value per Texas Property Tax Code Section 1.04(7). Only arm's length transactions are used for mass appraisal purposes. Examples of reasons why sales may be deleted or not considered are:

1. Property acquired through foreclosures or auction, if the transaction does not meet the definition of market value in the Texas Property Tax Code.

2. Property sold between relatives.

3. The buyer or seller is under duress and may be compelled to sell or purchase.

4. Financing may be non-typical or below or above prevailing market rates.

5. Considerable improvements or remodeling have been done since the date of the sale and the appraiser is unable to make judgments on the property's condition at the time of the transaction.

6. Sales may be unusually high or low when compared with typical sales located in the market area due to a seller relocation or divorce proceedings.

7. The property is purchased through an estate sale.

8. The sale involves intangibles, such as goodwill.

9. There are value-related problems associated with the sale, e.g. incorrect land size or square footage of living area.

10. Property use changes occurring after the sale.

Under some of these conditions a sale may still be able to be adjusted and then used as an arm's length transaction. Milam Appraisal District will use an adjusted sales price only when it can be reliably adjusted. Examples are when a sale includes more than the fee simple estate and the appraiser can confidently remove the personal property that was included in the sale or can accurately measure the difference between the value of the fee simple estate and the interest conveyed in the sale (such as a leased fee estate). If a sales adjustment cannot be accurately and reliably measured, then no adjustment should be attempted, and the sale should not be considered.

The Milam Appraisal District monitors changes in price levels and, if necessary, adjusts sales prices for time. Sales are adjusted to the appraisal date of January 1. Time adjustment factors are developed in each school district in the county. Adjustment factors are developed by comparing per unit value changes over time.

Once a reliable time adjustment factor has been developed for a stratum it is used to adjust sales to the appraisal date. This factor is used when analyzing sales data for potential market adjustments that occur annually.

Market Analysis

Economic trends, national, regional, and local trends affect the universe of property appraised in Milam County. An awareness of social, economic, governmental, and environmental conditions is essential in understanding, analyzing, and identifying local trends that affect the real estate market. Market analysis is performed throughout the year. Both general and specific data is collected and analyzed.

Examples of sources of general data include *"Trends"* issued by the Real Estate Center at Texas A&M University, *"The Appraiser"* published by the Texas Association of Appraisal Districts (TAAD), and *"Texas Assessor's News"* published by the Texas Association of Assessing Officers (TAAO). When possible, local sources such as lending institutions and the Chamber of Commerce are used to obtain financing information, demographics, and labor statistics.

Sales information is received from various sources. Asking prices are gathered from the realtor listings and conversations with local real estate appraisers, agents, and brokers.

Milam Appraisal District tracks all deed transactions. From this information, sales letters are mailed to the buyer and seller to obtain information on the sale. Disclosure of this information is

Market Analysis (continued)

not mandatory in the State of Texas and only a small percentage of letters are returned with useful information. This presents a problem in that there is sometimes inadequate sales data to perform as thorough an analysis of sales data as *USPAP* would require. The Property Tax Assistance Division (PTAD) also sends out sales letters and that data is made available to Milam Appraisal District.

Statistical Analysis

Milam Appraisal District performs statistical analysis annually to confirm that values are equitable and consistent with the market. Ratio studies are conducted on all properties in the district to judge the two primary aspects of mass appraisal –accuracy and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios are available for property within an ISD. These statistics include, but are not limited to, the weighted mean, standard deviation and coefficient of dispersion and provide the analysts an analytical tool by which to determine both the level and uniformity of appraised value in the district.

Milam Appraisal District reviews values annually through the sales ratio analysis process. The first phase involves ratio studies, which compares the recent sales prices of properties to the appraised values of these sold properties. This set of ratio studies affords the analyst an excellent means of judging the present level of appraised value and uniformity of the sales. The analyst, based on the sales ratio statistics and designated parameters for valuation update, makes a preliminary decision as to whether the value level needs to be updated in an upcoming reappraisal, or whether the level of market value is at an acceptable level.

Ratio Study Standards

Sales ratio studies are used to evaluate the districts mass appraisal performance. These studies not only provide a measure of performance but also are an excellent means of improving mass appraisal performance. Milam Appraisal District used ratio studies not only to aid in the revaluation of properties, but also to verify the results of the Comptroller's Property Tax Assistance Division (PTAD) annual property value study.

Sales ratio studies are usually performed annually. At this time individual properties which have sold are reviewed for accuracy in their data. Property record cards indicating the results of the field inspections are used to further aid in the analysis and decision making.

Ratio studies are usually done on a countywide base of all sales in the county and then by market area. The median ratio within each is then compared to the desired ratio to determine if schedule adjustments should be made. The coefficient of dispersion (COD) is also studied to indicate how tight the ratios are in relation to measures of central tendency. The median and coefficient of dispersion are good indicators that identify statistically the results of the valuation process. Milam Appraisal District adheres to the following standards recommended by the IAAO *Standards on Ratio Studies*.

A. *Appraisal Level* – The overall level of appraisal for the jurisdiction and each major stratum of properties should be within 5% of the legal standard – 100% of market value.

B. *Appraisal Uniformity* –

Ratio Study Standards (continued)

1. Uniformity amount Strata – The level of appraisal for each stratum should be within 5% of the overall level of appraisal for the jurisdiction.

2. Single Family Residential Strata – CODs generally should be 15.0 or less and for areas of newer and fairly similar residences, 10.0 or less.

3. Strata Composed of Income Producing Properties – CODs should be 15.0 or less for larger, urban jurisdiction and 20.0 or less in small rural jurisdictions.

4. Vacant Land – CODs should be 20.0 or less.

5. Other Strata – Target CODs should reflect the nature of the properties involved and the availability of reliable market indicators.

Residential Valuation Analysis

The residential appraisers are responsible for estimating equal and uniform market values for residential improved and vacant property.

Resources:

- **Personnel** – All three (3) appraisers share this responsibility.
- **Data** – An individualized set of data characteristics for each residential dwelling and multiple family units in this district is collected in the field and data entered to the computer. The property characteristic data drives the application of computer-assisted mass appraisal (CAMA) under the Cost, Market, and Income Approaches to property valuation.

Valuation Approach

Land Analysis

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. Land tables are utilized to consistently value individual parcels 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, trees, easements, and topography. 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 factors, general trends in real property prices and rents, interest rate trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources and provide the 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, and TAAO classes and seminars approved by the Property Tax Assistance Division (PTAD) of the Comptroller's Office.

Neighborhood (Market Area) 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. 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. The Market Approach is the primary approach to estimate value based on actual sales. The Cost Approach is used for unique properties, where sales and rental information is scarce. The Income Approach is used whenever the highest and best use of the property is as income producing 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 grouping of properties where the property's physical, economic, governmental, and social forces are generally similar and uniform. 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 usually it involves statistical separation or stratification based on attribute analysis.

That is, a neighborhood is not necessarily a geographic grouping of properties. A neighborhood is often a statistical grouping of like properties.

Part of neighborhood analysis is the consideration of discernible patterns 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 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, rental, and

Neighborhood (Market Area) Analysis (continued)

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. 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 and statistical tests. Neighborhood delineation is further reviewed through profiling and sales ratio analysis to determine if further neighborhood delineation or combination is warranted.

All market areas in Milam County are reviewed at least annually. This review consists of reviewing the component properties that make up the market area and screening for outliers as well as reviewing sales ratio statistics to identify outliers or trends amount property types or groupings that may indicate a different level of appraisal for said type or group. An example is where a second phase of a subdivision may consist of larger homes than the first phase. These properties may sell at different levels. If the two groups of properties are combined, one group will be over-appraised, while the other group will be under-appraised. If such a trend is detected in a market area, then the two groups should be separated in order to appraise both at market value and equitably.

Market trends vary and can only be detected through careful analysis. Market trends include, but are not limited to, class of property, size of improvements, amenities, lot size, location within the market area, and other factors that may influence the market. Therefore, the Milam Appraisal District appraiser looks not only at the overall appraisal statistics for a market area, but also attempts to identify market trends by isolating property characteristics and outliers to verify the appraisal statistics and refine the market area.

Once the market area is properly refined, a final sales ratio for that neighborhood is conducted. When sales or income data demonstrate that current valuations need to be adjusted to achieve market value, all properties in the same neighborhood grouping are adjusted with the same adjustment factor.

Neighborhood grouping is highly beneficial in sales comparison analysis. Neighborhood groups, or clustered subdivisions, increase the available market data by linking comparable properties outside a given subdivision. Sales ratio analysis is performed on a neighborhood basis. A complete list of market areas, including market adjustments, is maintained in the appraisal district's CAMA system and is reported upon completion in the Mass Appraisal Report.

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, the appraiser reviews the existing residential property use and makes a determination regarding highest and best use. In areas of mixed residential and commercial use, the appraiser reviews properties in these areas

Highest and Best Use Analysis (continued)

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.

Beginning in 2010, a Constitutional amendment was ratified that overrides the concept of highest and best use in regard to properties receiving a residential homestead exemption. These properties now must be valued as residential property regardless of their highest and best use or true market value.

Valuation and Statistical Analysis (Model Calibration)

Cost Schedules

All residential parcels in the district are valued with a replacement cost estimated from one set of cost schedules based on the improvement classification system on a cost per square foot basis. The district's residential cost schedules are estimated from *Marshall & Swift*, a nationally recognized cost estimator service. These cost estimates are compared with construction costs of new improvements and adjusted to reflect the local residential building market. The cost schedules are reviewed at least once every three years to ensure they reflect current costs.

Sales Information

Residential improved sales, vacant land sales, along with commercial improved and vacant land sales are maintained in sales database. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyers, field discovery, protest hearings, the multiple listing service, builders, and realtors.

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

Sales Information (continued)

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.

Time adjustments are estimated based on comparative analysis using paired comparison of sold property. 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

Residential appraisers perform statistical analysis annually to evaluate whether estimated values are equitable and consistent with the market. Ratio studies are conducted on each residential

neighborhood 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 by the

Valuation and Statistical Analysis (Model Calibration) (continued)

median ratio, mean ratio, and weighted mean ratio for sales. The uniformity of appraised values is determined by the Coefficient of Dispersion (COD) and the Price Related Differential (PRD).

The appraiser, through the sales ratio analysis process, reviews every market area 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 makes the 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.

Market and Cost Reconciliation and Valuation

Analysis of market sales to achieve an acceptable sale ration or level of appraisal also involves the reconciliation of the market and cost approaches to valuation. Market factors are developed from appraisal statistics provided from market analyses 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 local market influences that cannot be captured in a purely cost model.

The following equation denotes the hybrid model used:

$$MV = LV + (RCNLD*MA)$$

The estimated market value (MV) of the property equals the land value (LV) plus the replacement cost new of property improvements less accrued depreciation (RCNLD) multiplied by a market adjustment (MA) derived from sales analysis. 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.

The demand side is economic factors and influences, which may be observed from market activity. These market, or location adjustments, may be calculated and applied uniformly within neighborhoods based on market activity. 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 to total market value.

LV (land value) is estimated based on sales of similar lots. Equity is achieved by ensuring similar lots are valued similarly.

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. Essential to this hybrid cost-sales approach is accurate condition data, which can only be achieved through diligent field work.

Market and Cost Reconciliation and Valuation (continued)

When the appraiser reviews a market area, the appraiser reviews and evaluates a ratio study that compares recent sales prices of properties, appropriately adjusted for the effects of time, within a market area, 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 level of appraisal based on sold properties. If the level of appraisal for the neighborhood is less than or greater than 100%, adjustments to the entire area are made to reflect current market trends.

Therefore, based on analysis of recent sales located within a given area, estimated property values will reflect the market influences and conditions only for the specified area, thus producing more representative and supportable values. The estimated property values calculated are based on market indicated factors applied uniformly to all properties within an area. 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.

A complete list of market areas, including market adjustments, is maintained in the appraisal district's CAMA system, and is reported upon completion in the Mass Appraisal Report.

Individual Value Review Procedures

Inspection

Appraisers are required to measure and classify every new improvement as well as perform field checks on all permit activity such as remodels and additions. Appraisers are also responsible for ensuring every parcel of real property is inspected at least once every three years. Appraisers ensure the accuracy of the data in the Computer Assisted Mass Appraisal (CAMA) system and review subjective items such as quality of construction, condition, and physical, functional, and economic obsolescence, factors contributing to the market value of the property. During this review, the appraiser is able to visually inspect both sold properties and unsold properties for comparability and consistency of values.

Office Review

Once field review is completed and reviewed by quality control, the appraiser conducts a routine valuation review of all properties as outlined in the discussion of ratio studies and market analysis. Valuations reports comparing previous values against proposed and final values are generated for all residential improved and vacant properties. The percentage of value difference is noted for each property within an area, 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 Chief Appraiser is satisfied with the level and uniformity of value for each area, the estimates of value are finalized.

Performance Tests

Sales Ratio Studies

The primary analytical tool used 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 to allow the Chief Appraiser to review general market trends and provide an indication of market appreciation over a specified period of time.

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 (appraised value) of a qualified residence homestead will be the LESSER of:

- the market value; or
- the preceding year's appraised value;
  PLUS 10%;
  PLUS the value of any improvements.

Assessed values of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1st of the year following sale of the property and the property is appraised at its full market value.

Commercial Valuation Analysis

Commercial property is appraised using the fee simple interest of properties according to statute and court decisions. However, the effect of easements, restrictions, encumbrances, leases, contracts, or special assessments are considered on an individual basis.

Resources:

- **Personnel** – The commercial appraisal staff consists of two (2) appraisers who is responsible for estimating the market value of commercial property. Pritchard & Abbott performs the valuation of large, complex industrial properties.
- **Data** – Data used includes verified sales of vacant land and improved properties and the pertinent data obtained from each such as sales price levels, capitalization rates and income multipliers. Other data used by the appraisers include actual income and expense data, actual contract rental data, leasing information (commissions, tenant finish, length of terms, etc.), and actual construction cost data. In addition to the actual data obtained from specific properties, market data publications are also reviewed to provide additional support for market trends.

Preliminary Analysis

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

Preliminary Analysis (continued)

of improved property to evaluate current market prices for rents and for sales of commercial real property. 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.

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. Generally, commercial property is appraised on a price per square foot basis with individual property characteristics such as size, corner influence, depth of site, shape of site, easements, traffic patterns, and other factors reflected in the valuation. The land is valued as though vacant at its highest and best use.

Highest and Best Use Analysis

The highest and best use is the most reasonable and probable use that generates the highest present value of the real estate as of the date of valuation. The highest and best use of any given property must be physically possible, legally permissible, financially feasible, and maximally productive. For improvement 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.

Improved properties reflect a wide variety of highest and best uses which include, but are not limited to: office, retail, apartment, motel, warehouse, light industrial, or special uses. In many instances, the property's current use is the same as its highest and best use. This analysis ensures that an accurate estimate of market value is derived.

Market Analysis

Current market analysis shows little or no reported sales. Current market activity is greatly diminished for commercial properties.

Data Collection/Validation

Data Collection Manuals

Data collection and documentation for Commercial property is continually updated, providing a uniform system of itemizing the multitude of components comprising improved properties. All properties are coded according to a specific classification system and the approaches to value are structured and calibrated based on this coding system.

Sales data is categorized by property use type and location, if available. If income data of a sold property is known, it is used in cap rate analysis.

Data Collection/Validation (continued)

Sources of Data

Milam Appraisal District receives a copy of the deeds recorded in Milam County. Deeds that convey commercially classed properties are entered into the sales information system and researched to obtain the pertinent sale information. Other sources of sale data include sales questionnaires, protest hearings, and regional and national real estate and financial publications.

Valuation Analysis

Cost Schedules

The cost approach to value is applied to improved real property utilizing *Marshall & Swift* software that is loaded in the CAMA system. Cost models within the *Marshall & Swift Valuation Service* indicate estimated hard or direct costs of various improvement types. Market areas are modified based on local information. Cost models are used to estimate the replacement cost new (RCN) of all commercial improvements.

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 (RCN) 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 are based on what is typical of each major class of commercial property by economic life categories. Estimates of accrued depreciation are calculated for improvements with a range of variable years expected life based on observed condition considering actual age. Depreciation estimates are based on what is typical of each major class of commercial property by economic life categories. Estimates of accrued depreciation are calculated for improvements with a range of variable years expected life based on observed condition considering actual age. 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.

Additional forms of depreciation such as external and/or functional obsolescence can be applied if observed. Functional depreciation is usually due to a specific condition deficiency, while economic depreciation is usually based on economic trends that affect the value of a property.

The result of estimating accrued depreciation and deducting that from the estimated replacement cost new (RCN) 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 a property value by the cost approach. With reliable 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 the most reliable value indicator. The first step in the income approach pertains to the estimation

Income Models (continued)

of market rent. This is derived primarily from actual rent data furnished by property owners and lessees and from regional information obtained from various sources.

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. Relevant expense ratios are developed for different types of commercial property based on use and market experience.

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 and overall capitalization rates. Each of these multipliers or capitalization 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

Income Models (continued)

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.

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. 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.

Statistical and Capitalization Analysis

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

Appraisal statistics of central tendency and dispersion generated from sales ratios are calculated for each property type with available sales data. These summary statistics including, but not limited to, the median, mean, and 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 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

Statistical and Capitalization Analysis (continued)

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, as well as with information from published sources and area property managers and owners.

Individual Value Review Procedures

Field Review

Field review of real property accounts is accomplished while business personal property is reviewed and inspected in the field. Additionally, the appraisers frequently field review subjective data items such as building class, quality of construction, condition, and physical, functional, and economic obsolescence factors contributing significantly to the market value of the property. In some cases, field reviews are warranted when sharp changes in occupancy or rental rate levels occur between building classes or between economic areas.

Office Review

Office reviews are completed on properties subject to field inspections and are performed in compliance with the guidelines required by the existing classification system. Office 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, and special factors affecting the property valuation such as new construction status, and a sales history, if any.

After preliminary ratio statistics have been calculated, 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.

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 are typically represented with the range of sale prices, e.g., a sales ratio study. Independent, expert appraisals may also be used to represent market values in a ratio study. This can be particularly useful for commercial property for which sales are limited.

Business Personal Property Valuation Analysis

Resources:

- **Personnel** – Business Personal Property is valued by the commercial appraiser.
- **Data** – Data used by business personal property appraiser includes business personal property renditions, published density schedules such as the Property Tax Assistance Division's field appraiser manual, valuation services, and market data publications.

North American Industry Classification System Analysis

Business personal property is classified and utilizes a four-digit numeric code, called the North American Industry Classification System (NAICS) that was developed by the Federal Government to describe property. These classifications are used by Milam Appraisal District to classify personal property by business types.

NAICS identification and delineation is the cornerstone of the personal property valuation system at the district. All of the personal property analysis work done in association with the personal property valuation process is specific to the NAICS. NAICS is delineated based on observable aspects of homogeneity and 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

Personal property data collection procedures are published and distributed to all appraisers involved in the appraisal and valuation of personal property. These procedures consist of categorization standards and field review standards. Data is also obtained through annual renditions from business personal property owners.

Sources of Data

From year to year, reevaluation activities permit district appraisers to collect new data via field inspection. This results in the discovery of new businesses, changes in ownership, changes in assets, relocation of businesses, and closures of businesses not revealed through other sources. Assumed name certificates, sales tax permits, certificates of occupancy, tax assessors, city and local newspapers, and the public often provide the district information regarding new personal property and other useful facts related to property valuation.

An outside vendor provides Milam Appraisal District with a listing of vehicles within the jurisdiction. The vendor develops this listing from the Vehicle Registration records. Other sources of data include property owner renditions and field inspections.

Valuation and Statistical Analysis [model calibration]

Cost Schedules

Milam Appraisal District uses a cost analysis value system (CAVS) for cost schedules. The CAVS system uses cost information to develop a cost by property type. The appraiser can add or remove items and apply depreciation.

Depreciation Schedules

Milam Appraisal District's primary approach to the valuation of business personal property is the cost approach. The replacement cost new (RCN) is either developed from property owner reported historical cost or estimated from CAVS. The percent good depreciation factors used by Milam are based on Property Tax Assistance Division (PTAD) schedules.

Equalization Phase

Final equity studies are conducted prior to submission of the appraisal roll to the Appraisal Review Board, which begins the equalization phase. During equalization, informal and formal hearings are conducted. This is an opportunity to further refine the appraisal roll as appraisers learn more information about properties due to property owner appeals. Any information that will produce a more accurate appraisal roll, whether for individual properties or if applied to a group of similar properties, is to be applied prior to certification of the appraisal roll and used to improve the appraisal model in future years.

Final Performance Analysis

The Chief Appraiser reviews appraisal performance for the prior appraisal year by analyzing sales ratio reports, the Mass Appraisal Report, and the results of the latest Property Value Study. The objective is to continue improving performance.

PRITCHARD & ABBOTT, INC.
VALUATION CONSULTANTS

S.B. 1652* BIENNIAL REAPPRAISAL PLAN

FOR THE ANNUAL APPRAISAL FOR

AD VALOREM TAX PURPOSES OF

MINERAL, INDUSTRIAL, UTILITY AND

RELATED PERSONAL PROPERTY

For Tax Years:

2025 and 2026**

Originally Printed: July 2024

***This biennial reappraisal plan is largely predicated on the Scope of Work Rule in the most recent version of Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by The Appraisal Foundation's Appraisal Standards Board (ASB). The 2024 edition of USPAP has an effective start date but no end date. Because the standards have matured, the ASB now states that the need for the standards to be updated on a regular basis has decreased. Therefore, the 2024 USPAP will be effective for an indeterminate number of tax years, or until the next USPAP version is produced.*

*Senate Bill 1652 passed by the Texas Legislature, 79th Regular Session in 2005, amending Section 6.05 of the Texas Property Tax Code, adding Subsection (i) as follows:

"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 10th 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 for the hearing. Not later than September 15 of each even-numbered year, the board shall complete its hearings, 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."

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POLICY STATEMENT OF PRITCHARD & ABBOTT, INC., ON THE UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE

Pritchard & Abbott, Inc., (P&A), a privately held company engaged primarily, but not wholly, in the ad valorem tax valuation industry endorses Uniform Standards of Professional Appraisal Practice (USPAP) as the basis for the production of sound appraisals. Insofar as the statutory requirement to appraise groups (or a "universe") of real and personal property within an established period of time using standardized procedures—and subjecting the resulting appraisals to statistical measures—is the definition of mass appraisal, P&A subscribes to USPAP Standards 5 and 6 (Mass Appraisal, Development and Reporting) whenever applicable in the development and defense of values. When circumstances clearly dictate the use of single property appraisal procedures, P&A adheres to the spirit and intent of the remaining USPAP Standards within all appropriate, practical, and/or contractual limitations or specifications.

A biennial reappraisal plan is, at its core, a discussion of the CAD's intended implementation of the Scope of Work Rule in USPAP. This plan provides general information about this rather comprehensive USPAP rule, as well as the specific steps P&A takes in the actual appraisal of various property types per our contractual obligations. This Biennial Reappraisal Plan should not be confused or conflated with an "appraisal manual" or other "how-to" guide which may or may not exist within P&A for any particular property type we appraise.

This reappraisal plan discusses a few other USPAP rules that interact with the Scope of Work Rule, such as the Ethics Rule, the Record Keeping Rule, and Jurisdictional Exception Rule. For further information regarding other sections of USPAP, including the Competency Rule, definitions, and appraisal reports, please reference P&A's "USPAP report" which accompanies our appraisals and supporting documentation provided to clients per Property Tax Code, Sec. 25.01(c) at the completion of each tax year. ***An appraisal season thus begins with an appraisal plan (approved by the CAD's Board of Directors) and ends with appraisal reports.*** Providing these reports is definitely part of the plan. Likewise, much of the verbiage in the "USPAP report" is a reiteration of the Biennial Reappraisal Plan.

USPAP defines "appraisal" as the act or process of developing an opinion of value or pertaining to appraising and related functions such as appraisal practice or appraisal services. Valuation services is defined as services pertaining to an aspect of property value, regardless of the type of service and whether it is performed by appraisers or by others. The USPAP definition of "appraiser" is one who is expected to perform valuation services competently and in a manner that is ***independent, impartial, and objective.*** USPAP Advisory Opinion 21: *USPAP Compliance* states that this expectation (by clients and intended users of appraisal reports) is the basis that creates an ethical obligation to comply with USPAP, even if not legally required. Advisory opinions do not establish new standards or interpret existing standards, but instead are issued to illustrate the applicability of appraisal standards in specific situations.

The majority of property types that P&A typically appraises for ad valorem tax purposes are categorized as unique, complex, and/or "special purpose" properties (mineral interests, industrial, utility, and related personal property). These categories of properties do not normally provide sufficient market data of reliable quality and/or quantity to support the rigorous use of all USPAP-prescribed mass appraisal development mandates (Standard 5: Mass Appraisal, Development), particularly with regards to some, but not all, of the *model calibration* and *statistical performance testing* confines. However, P&A does strive to employ all or most elements of mass appraisal techniques with regards to the *definition* and *identification of property characteristics* and *model specification* and application.

Per USPAP Advisory Opinion 32: *Ad Valorem Property Tax Appraisal and Mass Appraisal Assignments,* in the interests of equity, the scope of work in mass appraisal assignments for ad valorem taxation can include consideration of appraisal level (the overall proximity between appraised values and actual prices) and the

uniformity of property values (equity within groups of like properties). The appraiser is responsible for recognizing when the concepts of appraisal level and appraisal uniformity are necessary for credible assignment results in a mass appraisal assignment for ad valorem taxation.

Residential real estate property appraisers most frequently apply mass appraisal methods within the sales comparison (market) approach to value. Through the use of standardized data collection (i.e., actual market sales), specification and calibration of mass appraisal models, tables, and schedules are possible. Through ratio study analysis and other performance measures, a cumulative summary of valuation accuracy can thus be produced in order to calibrate the appraisal model(s). Where sufficient data of reliable quality exists, mass appraisal is also used for other types of real estate property such as farms, vacant lots, and some commercial uses (e.g., apartments, offices, and small retail).

Regarding mass appraisal reports due the client and other intended users per USPAP (Standard 6 (Mass Appraisal, Reporting), a written report of the mass appraisal as described in Standards 6-2 is not provided for each individual property. An individual property record or worksheet may describe the valuation of the specific property after the application of the mass appraisal model. To understand the individual property result developed in a mass appraisal requires the examination of all the information and analysis required by Standards 6-2.

P&A will clearly state or otherwise make known all extraordinary assumptions, hypothetical conditions, limitations imposed by assignment conditions, and/or jurisdictional exceptions in its appraisal reports as they are conveyed to our clients. ***Intended users of our reports are typically the client(s) for which we are under direct contract.*** Although taxpayers or their agents who own and/or represent the subject property being appraised often receive these reports either by law or as a courtesy of the client or P&A, this receipt does not mean these parties automatically become Intended Users as defined by USPAP. ***A party receiving a copy of a report in order to satisfy disclosure requirements does not become an intended user of the appraisal or mass appraisal unless the appraiser specifically identifies such party as an intended user.*** Potential other users include parties involved in adjudication of valuation disputes (review board members, lawyers, judges, etc.), governmental agencies which periodically review our appraisals for various statutory purposes (such as the Texas Comptroller's Office) and private parties who may obtain copies of our appraisals through Open Records Requests made to governmental agencies.

USPAP does not currently address communications of assignment results prior to completion of the assignment, thus such communications have no requirements other than to comply with the general requirements in the Ethics Rule, the Competency Rule, and the Jurisdictional Exception Rule. The client and all intended users should be aware that mass appraisals, as opposed to most "fee" appraisals, are somewhat inherently "limited" versus "complete" and that appraisal reports, unless otherwise contracted for by the client, will most often be of a "restricted" nature whereas explanations of appraisal methods and results are more concise versus lengthy in order to promote brevity, clarity, and transparency to the intended user(s).

Per USPAP, the appropriate reporting option and level of information in a report are dependant on the intended use and the intended users. Although the reporting verbiage in USPAP Standard 6 does not specifically offer or promulgate a "Restricted Appraisal Report" such as in Standard 2 (Real Property Appraisal, Reporting) and Standard 8 (Personal Property Appraisal, Reporting), it should be noted that: a) all mass appraisals and mass appraisal reports deal with real and personal property in some form or fashion; and b) P&A is a private consulting firm, a fact which may necessitate the withholding of certain data and/or appraisal models/techniques which are deemed confidential, privileged and/or proprietary in nature. The use of "limited" appraisals in conjunction with "restricted" reports in no way implies non-compliance with USPAP. ***The substantive content of a report determines its compliance.***

P&A believes that, with its vast experience and expertise in these areas of appraisal, all concluded values and reports thereof are credible, competent, understandable, uniform and consistent; and most importantly for ad

valorem tax purposes, accomplished in a cost-efficient and timely manner.

Per previous ASB comments under Standard 6-2(b) *[scope of work... special limiting conditions]*:

> ***"Although appraisers in ad valorem taxation should not be held accountable for limitations beyond their control, they are required by this specific requirement to identify cost constraints and to take appropriate steps to secure sufficient funding to produce appraisals that comply with these standards. Expenditure levels for assessment administration are a function of a number of factors. Fiscal constraints may impact data completeness and accuracy, valuation methods, and valuation accuracy. Although appraisers should seek adequate funding and disclose the impact of fiscal constraints on the mass appraisal process, they are not responsible for constraints beyond their control."***

In any event, however, it is not P&A's intent to allow constraints, fiscal or otherwise, to limit the scope of work to such a degree that the mass appraisal results provided to our clients are not credible within the context of the intended use(s) of the appraisal.

PREAMBLE

The purpose of USPAP is to establish requirements and conditions for ethical, thorough, and transparent property valuation services. Valuation services pertain to all aspects of property value and include services performed by appraisers and other professionals including attorneys, accountants, insurance estimators, auctioneers, or brokers. Valuation services include appraisal, appraisal review, and appraisal consulting. The primary intent of these Standards is to promote and maintain a high level of public trust in professional appraisal practice.

It is essential that professional appraisers develop and communicate their analyses, opinions, and conclusions to intended users of their services in a manner that is meaningful and not misleading. The importance of the role of the appraiser places ethical obligations upon those who serve in this capacity. These USPAP Standards reflect the current standards of the appraisal profession.

These Standards are for both appraisers and users of appraisal services. To maintain a high level of professional practice, appraisers observe these Standards. However, these Standards do not in themselves establish which individuals or assignments must comply. The Appraisal Foundation nor its Appraisal Standards Board is not a government entity with the power to make, judge, or enforce law. Compliance with USPAP is only required when either the service or the appraiser is obligated to comply by law or regulation, or by agreement with the client or intended users. When not obligated, individuals may still choose to comply.

USPAP addresses the ethical and performance obligations of appraisers through Definitions, Rules, Standards, Statements (if any), and Advisory Opinions. USPAP Standards deal with the procedures to be followed in performing an appraisal or appraisal review and the manner in which each is communicated. A brief description of the USPAP Standards are as follows:

- **Standards 1 and 2:** establish requirements for the development and communication of a real property appraisal.
- **Standards 3 and 4:** establishes requirements for the development and communication of an appraisal review.
- **Standards 5 and 6:** establishes requirements for the development and communication of a mass appraisal.
- **Standards 7 and 8:** establish requirements for the development and communication of a personal property appraisal.
- **Standards 9 and 10:** establish requirements for the development and communication of a business or intangible asset appraisal.

Section 23.01(b) *[Appraisals Generally]* of the Texas Property Tax Code states:

> *"The market value of property shall be determined by the application of generally accepted appraisal methods and techniques. If the Appraisal District determines the appraised value of a property using mass appraisal standards, the mass appraisal standards must comply with the Uniform Standards of Professional Appraisal Practice...."* (underline added for emphasis)

Consequently, USPAP Standards 5 and 6 are assumed to be applicable for ad valorem tax purposes in Texas, if mass appraisal practices are in fact being used to appraise the subject property. USPAP Advisory Opinion 32 suggests several USPAP standards other than Standards 5 or 6 can apply in ad valorem tax work. It appears that an appraiser engaged in ad valorem tax work in Texas is not specifically required by law to rigorously follow USPAP standards if in fact mass appraisal practices have not been used to appraise the subject property. The Jurisdictional Exception Rule could then be invoked because of a contradiction between the requirements of USPAP and the law or regulation of a jurisdiction. Please see the P&A Policy Statement on USPAP as provided elsewhere in this report for a more detailed discussion regarding this matter.

ETHICS RULE

Because of the fiduciary responsibilities inherent in professional appraisal practice, the appraiser must observe the highest standards of professional ethics. This Ethics Rule is divided into four (4) sections:

- Nondiscrimination;
- Conduct;
- Management;
- Confidentiality.

This Rule emphasizes the personal obligations and responsibilities of the individual appraiser. However, it should be noted that groups and organizations ***which are comprised of individual appraisers engaged in appraisal practice*** effectively share the same ethical obligations. To the extent the group or organization does not follow USPAP Standards when legally required, individual appraisers should take steps that are appropriate under the circumstances to ensure compliance with USPAP.

Compliance with these Standards is required when either the service or the appraiser is obligated by law or regulation, or by agreement with the client or intended users, to comply. ***Compliance is also required when an individual, by choice, represents that he or she is performing the service as an appraiser.***

An appraiser must not misrepresent his or her role when providing valuation services that are outside of appraisal practice.

Honesty, impartiality, and professional competency are required of all appraisers under USPAP Standards. To document recognition and acceptance of his or her USPAP-related responsibilities in communicating an appraisal or appraisal review completed under USPAP, an appraiser is required to certify compliance with these Standards.

NONDISCRIMINATION

An appraiser must not act in a manner that violates or contributes to a violation of federal, state, or local anti-discrimination laws or regulations. This includes the Fair Housing Act (FHAct), the Equal Credit Opportunity Act (ECOA), and the Civil Rights Act of 1866.

An appraiser must have knowledge of anti-discrimination laws and regulations and when those laws or regulations apply to the appraiser or to the assignment. An appraiser must complete an assignment in full compliance with applicable laws and regulations.

1. An appraiser, when completing a residential real property assignment, must not base their opinion of value in whole or in part on race, color, religion, national origin, sex, disability, or familial status.

2. An appraiser, when completing an assignment where the intended use is in connection with a credit transaction, not limited to credit secured by real property, must not base their opinion of value in whole or in part on race, color, religion, national origin, sex, marital status, age, source of income, or the good-faith exercise of rights under the Consumer Credit Protection Act.

3. An appraiser must not violate any state or local anti-discrimination laws or regulations applicable to the appraiser or to their assignment.

Whether or not any anti-discrimination law or regulation applies:

1. An appraiser must not develop and/or report an opinion of value that, in whole or in part, is based on the actual or perceived race, ethnicity, color, religion, national origin, sex, sexual orientation, gender, gender identity, gender expression, marital status, familial status, age, receipt of public assistance income, or disability of any person(s).

2. An appraiser must not base an opinion of value upon the premise that homogeneity of the inhabitants of a geographic area is relevant for the appraisal.

3. An appraiser must not perform an assignment with bias with respect to the actual or perceived race, ethnicity, color, religion, national origin, sex, sexual orientation, gender, gender identity, gender expression, marital status, familial status, age, receipt of public assistance income, or disability of any person(s).

4. An appraiser must not use or rely upon another characteristic as a pretext to conceal the use of or reliance upon race, ethnicity, color, religion, national origin, sex, sexual orientation, gender, gender identity, gender expression, marital status, familial status, age, receipt of public assistance income, or disability of any person(s), when performing an assignment.

If an assignment does not involve residential real property and the intended use is not in connection with a credit transaction, the FHAct and ECOA do not apply. If the FHAct and ECOA do not apply, and no other law or regulation prohibits the use of or reliance upon a protected characteristic,5 then the use of or reliance upon that characteristic is permitted only to the extent that it is essential to the assignment and necessary for credible assignment results.

CONDUCT

An appraiser must perform assignments with impartiality, objectivity, and independence, and without accommodation of personal interests.

An appraiser:

- must not perform an assignment with bias;
- must not advocate the cause or interest of any party or issue;
- ***must not accept an assignment that includes the reporting of predetermined opinions and conclusions***;
- must not misrepresent his or her role when providing valuation services that are outside of appraisal practice;
- must not communicate assignment results with the intent to mislead or to defraud;
- must not use or communicate a report or assignment results known by the appraiser to be misleading or fraudulent;
- must not knowingly permit an employee or other person to communicate a report or assignment results that are misleading or fraudulent report;
- must not engage in criminal conduct;
- must not willfully or knowingly violate the requirements of the RECORD KEEPING RULE; and must not perform an assignment in a grossly negligent manner.

If known prior to accepting an assignment, and/or if discovered at any time during the assignment, an appraiser must disclose to the client, and in each subsequent report certification:

- any current or prospective interest in the subject property or parties involved; and
- any services regarding the subject property performed by the appraiser within the three year period immediately preceding acceptance of the assignment, as an appraiser or in any other capacity.

The appraiser can agree with the client to keep the mere occurrence of a prior appraisal assignment confidential. If an appraiser has agreed with the client not to disclose that he or she has appraised a property, the appraiser must decline all subsequent assignment that fall with the three year period. In assignments is which there is no report, only the initial disclosure to the client is required.

Presumably all parties in ad valorem tax appraisal will be aware of the ongoing yearly nature of the appraisal assignments performed by valuation consulting firms like Pritchard & Abbott, Inc.—i.e., it will not be confidential—so that this particular conduct instruction is more or less a moot point (regarding the three year period discussed) if the prior service is in fact the ad valorem tax appraisals performed in previous tax years.

MANAGEMENT

The payment of a fee, commission, or a thing of value by the appraiser in connection with the procurement of an assignment must be disclosed. This disclosure must appear in the certification and in any transmittal letter in which conclusions of value are stated; however, the disclosure of the amount paid is not required. Intra-company payments to employees of groups or organizations involved in appraisal practice for business development do not require disclosure.

It is unethical for an appraiser to accept compensation for performing an assignment when it is contingent upon the reporting of a ***predetermined result, a direction in assignment results that favors the cause of the client, the amount of a value opinion, the attainment of a stipulated result,*** or the occurrence of a subsequent event directly related to the appraiser's opinions and specific to the assignment's purpose.

Advertising for or ***soliciting assignments in a manner that is false, misleading, or exaggerated*** is unethical. Decisions regarding finder or referral fees, contingent compensation, and advertising may not be the responsibility of an individual appraiser, but for a particular assignment it is the responsibility of the individual appraiser to ascertain that there has been no breach of ethics, that the assignment consulting assignment has been prepared in accordance with USPAP Standards, and that the report can be properly certified when required by USPAP Standards 2-3, 4-3, 6-3, 8-3, or 10-3.

An appraiser must affix, or authorize the use of, his or her signature to certify recognition and acceptance of his or her USPAP responsibilities in an appraisal or appraisal review assignment. An appraiser may authorize the use of his or her signature only on an assignment-by-assignment basis.

In addition, an appraiser must not affix the signature of another appraiser without his or her consent. An appraiser must exercise due care to prevent unauthorized use of his or her signature. However, an appraiser exercising such care is not responsible for unauthorized use of his or her signature.

CONFIDENTIALITY

An appraiser must protect the confidential nature of the appraiser-property owner relationship.

An appraiser must act in good faith with regard to the legitimate interests of the client in the use of confidential information and in the communication of assignment results.

An appraiser must be aware of, and comply with, all confidentiality and privacy laws and regulations applicable in an assignment.

An appraiser must not disclose confidential factual data obtained from a property owner to anyone other than:

1. The client;
2. Parties specifically authorized by the client;
3. State appraiser regulatory agencies;
4. Third parties as may be authorized by due process of law; or
5. A duly authorized professional peer review committee except when such disclosure to a committee would violate applicable law or regulation.

An appraiser must take reasonable steps to safeguard access to confidential information and assignment results by unauthorized individuals, whether such information or results are in physical or electronic form. In addition, an appraiser must ensure that employees, coworkers, subcontractors, or others who may have access to confidential information or assignments results, are aware of the prohibitions on disclosure of such information or results.

It is unethical for a member of a duly authorized professional peer review committee to disclose confidential information presented to the committee.

When all confidential elements of confidential information are removed through redaction or the process of aggregation, client authorization is not required for the disclosure of the remaining information, as modified.

RECORD KEEPING RULE

An appraiser must prepare a workfile for each appraisal or appraisal review assignment. A workfile must be in existence prior to the issuance of any report or other communication of assignment results. A written summary of an oral report must be added to the workfile within a reasonable time after the issuance of the oral report.

The workfile must include the name of the client and the identity, by name or type, of any other intended users, and true copies of all written reports, documented on any type of media. (A true copy is a replica of the report transmitted to the client. A photocopy or an electronic copy of the entire report transmitted to the client satisfies the requirement of a true copy.) A workfile must contain summaries of all oral reports or testimony, or a transcript of testimony, including the appraiser's signed and dated certification; and all other data, information, and documentation necessary to support the appraiser's opinions and conclusions and to show compliance with USPAP, or references to the location(s) of such other data, information, and documentation.

A workfile in support of a Restricted Appraisal Report or an oral appraisal report must be sufficient for the appraiser to produce an Appraisal Report. A workfile in support of an oral appraisal review report must be sufficient for the appraiser to produce an Appraisal Review Report.

An appraiser must retain the workfile for a period of at least ***five years after preparation*** or at least two years after final disposition of any judicial proceeding in which the appraiser provided testimony related to the assignment, whichever period expires last.

An appraiser must have custody of the workfile, or make appropriate workfile retention, access, and retrieval arrangements with the party having custody of the workfile. This includes ensuring that a workfile is stored in a medium that is retrievable by the appraiser throughout the prescribed record retention period. An appraiser having custody of a workfile must allow other appraisers with workfile obligations related to an assignment appropriate access and retrieval for the purpose of:

- submission to state appraiser regulatory agencies;
- compliance with due process of law;
- submission to a duly authorized professional peer review committee; or
- compliance with retrieval arrangements.

A workfile must be made available by the appraiser when required by a state appraiser regulatory agency or due process of law.

An appraiser who willfully or knowingly fails to comply with the obligations of this Record Keeping Rule is in violation of the Ethics Rule.

SCOPE OF WORK RULE

For each appraisal or appraisal review assignment, an appraiser must:

1. Identify the problem to be solved;
2. Determine and perform the scope of work necessary to develop credible assignment results; and
3. Disclose the scope of work in the report.

An appraiser must properly identify the problem to be solved in order to determine the appropriate scope of work. The appraiser must be prepared to demonstrate that the scope of work is sufficient to produce credible assignment results.

Scope of work includes, but is not limited to:

- the extent to which the property is identified;
- the extent to which tangible property is inspected;
- the type and extent of data researched; and
- the type and extent of analyses applied to arrive at opinions or conclusions.

Appraisers have broad flexibility and significant responsibility in determining the appropriate scope of work for an appraisal or appraisal review assignment. Credible assignment results require support by relevant evidence and logic. ***The credibility of assignment results is always measured in the context of the intended use.***

PROBLEM IDENTIFICATION

An appraiser must gather and analyze information about those assignment elements that are necessary to properly identify the appraisal, appraisal review or appraisal consulting problem to be solved. The assignment elements necessary for problem identification are addressed in the Standard 6-2:

- client and any other intended users;
- intended use of the appraiser's opinions and conclusions;
- type and definition of value;
- effective date of the appraiser's opinions and conclusions;
- subject of the assignment and its relevant characteristics; and
- assignment conditions.

This information provides the appraiser with the basis for determining the type and extent of research and analyses to include in the development of an appraisal. Similar information is necessary for problem identification in appraisal review and appraisal consulting assignments. Assignment conditions include:

- assumptions;
- extraordinary assumptions;
- hypothetical conditions;
- laws and regulations;
- jurisdictional exceptions; and
- other conditions that affect the scope of work.

SCOPE OF WORK ACCEPTABILITY

The scope of work must include the research and analyses that are necessary to develop credible assignment results. The scope of work is acceptable when it meets or exceeds:

- the expectations of parties who are regularly intended users for similar assignments; and
- what an appraiser's peers' actions would be in performing the same or a similar assignment.

Determining the scope of work is an ongoing process in an assignment. Information or conditions discovered during the course of an assignment might cause the appraiser to reconsider the scope of work. An appraiser must be prepared to support the decision to exclude any investigation, information, method, or technique that would appear relevant to the client, another intended user, or the appraiser's peers.

An appraiser must not allow assignment conditions to limit the scope of work to such a degree that the assignment results are not credible in the context of the intended use. In addition, the appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

DISCLOSURE OBLIGATIONS

The report must contain sufficient information to allow intended the client and other intended users to understand the scope of work performed. Proper disclosure is required because clients and other intended users may rely on the assignment results. Sufficient information includes disclosure of research and analyses performed or not performed. ***The information disclosed must be appropriate for the intended use of the assignment results.***

Sufficient information includes disclosure of research and analyses performed and might also include disclosure of research and analyses not performed. ***The appraiser has broad flexibility and significant responsibility in the level of detail and manner of disclosing the scope of work in the appraisal report or appraisal review report.*** The appraiser may, but is not required to, consolidate the disclosure in a specific section or sections of the report, or use a particular label, heading or subheading. An appraiser may choose to disclose the scope of work as necessary throughout the report.

JURISDICTIONAL EXCEPTION RULE

If any applicable law or regulation precludes compliance with any part of USPAP, only that part of USPAP becomes void for that assignment. When compliance with USPAP is required by federal law or regulation, no part of USPAP can be voided by a law or regulation of a state or local jurisdiction. ***When an appraiser properly follows this Rule in disregarding a part of USPAP, there is no violation of USPAP.***

In an assignment involving a jurisdictional exception, an appraiser must:

- identify the law or regulation that precludes compliance with USPAP;
- comply with that law or regulation;
- clearly and conspicuously disclose in the report the part of USPAP that is voided by that law or regulation; and
- cite in the report the law or regulation requiring this exception to USPAP compliance.

The purpose of the Jurisdictional Exception Rule is strictly limited to providing a saving or severability clause intended to preserve the balance of USPAP if one or more of its parts are determined as contrary to law or public policy of a jurisdiction. By logical extension, there can be no violation of USPAP by an appraiser who disregards, with proper disclosure, only the part or parts of USPAP that are void and of no force and effect in a particular assignment by operation of legal authority.

It is misleading for an appraiser to disregard a part or parts of USPAP as void and of no force and effect in a particular assignment without identifying the part or parts disregarded and the legal authority justifying this action in the appraiser's report.

"Law" includes constitutions, legislative and court-made law, and administrative rules (such as from the Office of the Texas Comptroller of Public Accounts) and ordinances. "Regulations" include rules or orders having legal force, issued by an administrative agency. ***Instructions from a client or attorney do not establish a jurisdictional exception.***

A jurisdictional exception prevalent in Texas is that appraisers are seeking to establish "fair market value" as defined by the Texas Property Tax Code instead of "market value" as found in the USPAP definitions section.

USPAP STANDARDS 5 AND 6: MASS APPRAISAL, DEVELOPMENT AND REPORTING (General Discussion)

In developing a mass appraisal, an appraiser must be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce and communicate credible mass appraisals.

Standards 5 and 6 apply to all mass appraisals of real and personal property regardless of the purpose or use of such appraisals. It is directed toward the substantive aspects of developing and communicating competent analyses, opinions, and conclusions in the mass appraisal of properties, whether real property or personal property. Standard 5 is directed toward the substantive aspects of developing credible analyses, opinions, and conclusions in the mass appraisal of properties, while Standard 6 addresses the content and level of information required in a written report that communicates the results of a mass appraisal. The reporting and jurisdictional exceptions applicable to public mass appraisals prepared for purposes of ad valorem taxation do not apply to mass appraisals prepared for other purposes.

A mass appraisal includes:

- identifying properties to be appraised;
- defining market areas of consistent behavior that applies to properties;
- identifying characteristics (supply and demand) that affect the creation of value in that market area;
- developing (specifying) a model structure that reflects the relationship among the characteristics affecting value in the market area;
- calibrating the model structure to determine the contribution of the individual characteristics affecting value;
- applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
- reviewing the mass appraisal results.

The Jurisdictional Exception Rule may apply to several sections of Standards 5 and 6 because ad valorem tax administration is subject to various state, county, and municipal laws.

As previously stated in the P&A Policy Statement (page 2), it may not be possible or practicable for all the mass appraisal attributes listed above to be rigorously applied to the many types of complex and/or unique properties that P&A typically appraises. Often there are contractual limitations on the scope of work needed or required. More prevalently, these types of properties do not normally provide a reliable database of market transactions (or details of transactions) necessary for statistically supportable calibration of appraisal models and review of appraisal results. Generally these two functions are effectively accomplished through annual extended review meetings with taxpayers (and clients) who provide data, sometimes confidentially, that allows for appraisal models to be adjusted where necessary. Nevertheless, and not withstanding whether P&A implicitly or explicitly employs or reports all attributes listed above, in all cases P&A at the minimum employs tenants of "generally accepted appraisal methods" which are the genesis of USPAP Standards.

Per USPAP guidelines, P&A will make known all departures and jurisdictional exceptions when invoked (if an appraisal method or specific requirement is applicable but not necessary to attain credible results in a particular assignment).

The various sections of Standard 5 (development of mass appraisal) and Standard 6 (communication of the mass appraisal results) are briefly summarized below:

- **Standard 5-1:** Establishes the appraiser's technical and ethical framework. Specifically, appraisers must recognize and use established principles, methods and techniques of appraisal in a careful manner while not committing substantial errors of fact or negligence that would materially affect the appraisal results and not give a credible estimate of fair market value. To this end appraisers must continuously improve his or her skills to maintain proficiency and keep abreast of any new developments in the real and personal property appraisal profession. This Standards does not imply that competence requires perfection, as perfection is impossible to attain. Instead, it requires appraisers to employ every reasonable effort with regards to due diligence and due care.

- **Standard 5-2:** Defines the introductory framework requirements of developing a mass appraisal, focusing on the identification and/or definition of: client(s), intended users, effective date, appraisal perspective, scope of work, extraordinary assumptions, hypothetical conditions, the type and definition of value being developed (typically "fair market value" for ad valorem tax purposes), characteristics of the property being appraised in relation to the type and definition of value and intended use, the characteristics of the property's market, the property's real or personal attributes, fractional interest applicability, highest and best use analysis along with other land-related considerations, and any other economic considerations relevant to the property.

- **Standard 5-3:** Defines requirements for developing and specifying appropriate mass appraisal data and elements applicable for real and personal property. For real property, the data and elements include: existing land use regulations, reasonably probable modification of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use analysis. For personal property, the relevant data and elements include: identification of industry trends, trade level, highest and best use, and recognition of the appropriate market consistent with the type and definition of value.

- **Standard 5-4:** Further defines requirements for developing mass appraisal models, focusing on development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe of properties under consideration. This rule specifies that appraisers employ recognized techniques for specifying and calibrating mass appraisal models. Model specification is the formal development of a model in a statement or mathematical equation, including all due considerations for physical, functional, and external market factors as they may affect the appraisal. These models must accurately represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. Models must be calibrated using recognized techniques, including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation. Models may be specified incorporating the income, market, and/or cost approaches to value and may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics such as adaptive estimation. Model calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model.

- **Standard 5-5:** Defines requirements for collection of sufficient factual data, in both qualitative and quantitative terms, necessary to produce credible appraisal results. The property characteristics collected must be contemporaneous with the effective date of the appraisal. The data collection program should incorporate a quality control procedure, including checks and audits of the data to ensure current and consistent records. This rule also calls for calls for an appraiser, in developing income and expense statements and cash flow projections, to weigh historical information and trends, current market factors affecting such trends, and reasonably anticipated events, such as competition from developments either planned or under construction. Terms and conditions of any leases should be analyzed, as well as the need for and extent of any physical inspection of the properties being appraised.

- **Standard 5-6:** Defines requirements for application of a calibrated model to the property being appraised. This rule calls for: the appraiser to recognize methods or techniques based on the cost, market, and income approaches for improved parcels; the appraiser to value sites by recognized methods or techniques such as allocation method, abstraction method, capitalization of ground rent, and land residual; the appraiser to develop value of leased fee or leasehold estates with consideration for terms and conditions of existing leases, and, when applicable by law, as if held in fee simple whereas market rents are substituted for actual contract rents; the appraiser to analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or component parts of a property; the appraiser to analyze anticipated public or private improvements located on or off the site, and analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in market actions.

- **Standard 5-7:** Defines the reconciliation process of a mass appraisal. Specifically, appraisers must analyze the results and/or applicability of the various approaches used while ensuring that, on an overall basis, standards of reasonableness and accuracy are maintained with the appraisal model selected (underline added for emphasis). It is implicit in mass appraisal that, even when properly specified and calibrated models are used, some individual value conclusions will not meet standards of reasonableness, consistency, and accuracy. Appraisers have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy.

- **Standard 6-1:** Defines general requirements of a mass appraisal report which is required to be in writing; no option exists for oral reports. This standard addresses the level of information required so that the report is clearly understood (i.e., not misleading) and sufficiently qualified with any assumptions and conditions (elements of which are further detailed in the next three sections of this report that discuss P&A appraisal procedures with regards to specific categories of property).

- **Standard 6-2:** Defines specific content required to be included in a mass appraisal written report.

- **Standard 6-3:** Defines the certification of the mass appraisal written report.

The following sections of this report discuss in more detail the various elements of the development of P&A's mass appraisals and associated written reports as required by USPAP Standards 5 and 6, with regards to P&A appraisal of Mineral Interests, Industrial, Utility, Related Personal Property, and Real Estate.

USPAP STANDARDS 5, 6-1, 6-2: MASS APPRAISAL OF MINERAL INTERESTS

INTRODUCTION

Definition of Appraisal Responsibility (Scope of Effort): The Mineral Valuation Department of Pritchard & Abbott, Inc. ("P&A" hereinafter), is responsible for developing credible values for mineral interests (full or fractional percentage ownership of oil and gas leasehold interest, the amount and type of which are legally and/or contractually created and specified through deeds and leases, et.al.) associated with producing (or capable of producing) leases. Mineral interests are typically considered real property because of their derivation from the bundle of rights associated with original fee simple ownership of land. Typically all the mineral interests that apply to a single producing lease are consolidated by type (working vs. royalty) with each type then appraised for full value which is then distributed to the various fractional decimal interest owners prorata to their individual type and percentage amount.

P&A's typical client is a governmental entity charged with appraisal responsibility for ad valorem tax purposes, although other types of clients (private businesses, individuals, etc.) occasionally contract for appraisal services which are strictly for various non-ad valorem tax purposes so that no conflicts of interest are created with P&A's core ad valorem tax work.

P&A hereby makes the **assumption** that, in all appraisal assignments performed for governmental entities in satisfaction of contractual obligations related to ad valorem tax , the client does not wish to or cannot legally request the appraisal report not identify the client.

Intended users of our reports are typically the client(s) for which we are under direct contract. Although taxpayers or their agents who own and/or represent the subject property being appraised often receive these reports either by law or as a courtesy of the client or P&A, this receipt does not mean these parties automatically become Intended Users as defined by USPAP. **A party receiving a copy of a report in order to satisfy disclosure requirements does not become an intended user of the appraisal or mass appraisal unless the appraiser specifically identifies such party as an intended user.** Potential other users include parties involved in adjudication of valuation disputes (review board members, lawyers, judges, etc.), governmental agencies which periodically review our appraisals for various statutory purposes (such as the Texas Comptroller's Office) and private parties who may obtain copies of our appraisals through Open Records Requests made to governmental agencies.

This section of P&A's USPAP report is not applicable to any mineral or mineral interest property that an appraisal district appraises outside of P&A's appraisal services, in which case the appraisal district's overall USPAP report should be referenced.

P&A makes the **Extraordinary Assumption** that all properties appraised for ad valorem tax purposes are marketable whereas ownership and title to property are free of encumbrances and other restrictions that would affect fair market value to an extent not obvious to the general marketplace. If and/or when we are made aware of any encumbrances, etc., these would be taken into account in our appraisal in which case the extraordinary assumption stated above would be revoked.

P&A is typically under contract to determine current market value or "fair market value" of said mineral interests. Fair market value is typically described as the price at which a property would sell for if:

- exposed in the open market with a reasonable time for the seller to find a purchaser;
- both the buyer and seller know of all the uses and purposes to which the property is, or can be, adapted and of the enforceable restrictions on its use; and

- both the buyer and seller seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other. [Exigencies are pressing or urgent conditions that leave one party at a disadvantage to the other.]

For ad valorem tax purposes the effective date is usually legislatively specified by the particular State in which we are working - for example, in Texas the lien date is January 1 per the Texas Property Tax Code. For ad valorem tax purposes, the date of the appraisals and reports are typically several months past the effective date, thereby leaving open the possibility that a retrospective approach is appropriate under limited and prescribed circumstances (information after the effective date being applicable only if it confirms a trend or other appraisal condition that existed and was generally known as of the effective date).

P&A believes this section of this report, in conjunction with any attached or separately provided P&A-generated report(s), meets the USPAP definition of "typical practice"; i.e., it satisfies a level of work that is consistent with:

- the expectations of participants in the market for the same or similar appraisal services; and
- what P&A's peers' actions would be in performing the same or similar appraisal services in compliance with USPAP.

Legal and Statutory Requirements: In Texas, the provisions of the Texas Property Tax Code and other relevant legislative measures involving appraisal administration and procedures control the work of P&A as an extension of the Appraisal District. Other states in which P&A is employed will have similar controlling legislation, regulatory agencies, and governmental entities. P&A is responsible for appraising property on the basis of its fair market value as of the stated effective date (January 1 in Texas) for ad valorem tax purposes for each taxing unit that imposes ad valorem taxes on property in the contracted Appraisal District. All mineral properties (interests) are reappraised annually. The definition of Fair Market Value is provided and promulgated for use in ad valorem tax work in Texas by the Texas Property Tax Code, and therefore as a **Jurisdictional Exception** supercedes the definition of "market value" as found in USPAP definitions.

> NOTE: IN TEXAS, P&A BELIEVES THE PROPERTY BEING APPRAISED AND PLACED ON THE TAX ROLL IS THE INTEREST AND NOT THE OIL OR GAS MINERAL ITSELF, PER PROPERTY TAX CODE SECTION 1.04(2)(F). WHILE OIL AND GAS RESERVES CERTAINLY HAVE VALUE, THE FACT IS THAT IT IS THE INTERESTS IN THESE MINERALS THAT ARE BOUGHT AND SOLD, NOT THE MINERALS THEMSELVES. THE SALE OF MINERALS AS THEY ARE EXTRACTED FROM THE SUBSURFACE OF THE LAND WHERE THEY RESIDE AS MINERALS IN PLACE "MONETIZES" THE INTEREST AND THUS GIVES THE INTEREST ITS VALUE. WHENEVER P&A REFERS TO "MINERAL PROPERTIES" IN THIS REPORT OR IN ANY OTHER SETTING, IT IS THE MINERAL INTEREST, AND NOT THE MINERAL ITSELF, THAT IS THE SUBJECT OF THE REFERENCE.

Administrative Requirements: P&A endorses the principals of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures. P&A also endorses, and follows when possible, the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP). In all cases where IAAO and/or USPAP requirements cannot be satisfied for reasons of practicality or irrelevancy, P&A subscribes to "generally accepted appraisal methods and techniques" so that its value conclusions are credible and defendable. P&A submits annual or biannual contract bids to the Appraisal District Board of Directors or the Office of the Chief Appraiser and is bound to produce appraisal estimates on mineral properties within the cost constraints of said bid. Any appraisal practices and procedures followed by P&A not explicitly defined or allowed through IAAO or USPAP requirements are specified by the Texas Property Tax Code or at the specific request or direction of the Office of the Chief Appraiser.

Appraisal Resources

Personnel: The Mineral Valuation Division staff consists of competent Petroleum Engineers, Geologists, and Appraisers. All personnel are Registered Professional Appraisers with the State of Texas, or are progressing towards this designation within the allowable time frames prescribed by the Texas Department of Licensing and Regulation (TDLR) and/or other licensing and regulatory agencies as applicable.

Data: For each mineral property a common set of data characteristics (i.e. historical production, price and expense data) is collected from various sources and entered into P&A's mainframe computer system. Historical production data and price data is available through state agencies (Texas Railroad Commission, Texas Comptroller, et al.) or private firms who gather, format and repackage such data for sale commercially. Each property's characteristic data drives the computer-assisted mass appraisal approach to valuation.

Information Systems: The mainframe systems are augmented by the databases that serve the various in-house and 3rd-party applications on desktop personal computers. In addition, communication and dissemination of appraisals and other information is available to the taxpayer and client through electronic means including internet and other phone-line connectivity. The appraiser supervising any given contract fields many of the public's questions or redirects them to the proper department personnel.

VALUATION APPROACH (MODEL SPECIFICATION)

Concepts of Value: The valuation of oil and gas properties is not an exact science, and exact accuracy is not attainable due to many factors. Nevertheless, standards of reasonable performance do exist, and there are usually reliable means of measuring and applying these standards.

Petroleum properties are subject to depletion, and capital investment must be returned before economic exhaustion of the resource (mineral reserves). The examination of petroleum properties involves understanding the geology of the resource (producing and non-producing), type of reservoir energy, the methods of secondary and enhanced recovery (if applicable), and the surface treatment and marketability of the produced petroleum product(s).

Evaluation of mineral properties is a continuous process; the value as of the lien date merely represents a "snapshot" in time. The potential value of mineral interests derived from sale of minerals to be extracted from the ground change with mineral price fluctuation in the open market, changes in extraction technology, costs of extraction, and other variables such as the value of money.

Approaches to Value for Petroleum Property

Cost Approach: The use of cost data in an appraisal for market value is based upon the economic principle of substitution. The cost approach typically derives value by a model that begins with replacement cost new (RCN) and then applies depreciation in all its forms (physical depreciation, functional and economic obsolescence). This method is difficult to apply to oil and gas properties since lease acquisition and development may bear no relation to present worth. Though very useful in the appraisal of many other types of properties, the cost approach is not readily applicable to mineral properties. [Keep in mind that the property actually being appraised is the mineral interest and not the oil and gas reserves themselves. Trying to apply the cost approach to evaluation of mineral interests is like trying to apply the cost approach to land; it is a moot point because both are real properties that are inherently non-replaceable.] **As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., does not employ the cost approach in the appraisal of mineral interests.**

Market Approach: This approach may be defined as one which uses data available from actual transactions recorded in the market place itself; i.e., sales of comparable properties from which a comparison to the subject

property can be made. Ideally, this approach's main advantage involves not only an opinion but an opinion supported by the actual spending of money. Although at first glance this approach seems to more closely incorporate the aspects of fair market value per its classical definition, there are two factors that severely limit the usefulness of the market approach for appraising oil and gas properties. First, oil and gas property sales data is seldom disclosed (in non-disclosure states such as Texas); consequently there is usually a severe lack of market data sufficient for meaningful statistical analysis. Second, all conditions of each sale must be known and carefully investigated to be sure one does have a comparative indicator of value per fair market value perquisites.

Many times when these properties do change hands, it is generally through company mergers and acquisitions where other assets in addition to oil and gas reserves are involved; this further complicates the analysis whereby a total purchase price must be allocated to the individual components - a speculative and somewhat arbitrary task at best. In the case of oil and gas properties, a scarcity of sales requires that every evidence of market data be investigated and analyzed. Factors relative to the sale of oil and gas properties are:

- current production and estimated declines forecast by the buyer;
- estimated probable and potential reserves;
- general lease and legal information which defines privileges or limitation of the equity sold;
- undeveloped potential such as secondary recovery prospects;
- proximity to other production already operated by the purchaser;
- contingencies and other cash equivalents; and
- other factors such as size of property, gravity of oil, etc.

In the event that all these factors are available for analysis, the consensus effort would be tantamount to performing an income approach to value (or trying to duplicate the buyer's income approach to value), thereby making the market approach somewhat moot in its applicability. **As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., rarely employs a rigorous application of the market approach in the appraisal of mineral interests.**

Income Approach: This approach to value most readily yields itself to the appraisal of mineral interests. Data is readily available whereby a model can be created that reasonable estimates a future income stream to the property. This future income may then be converted (discounted) into an estimate of current value. Many refer to this as a capitalization method, because capitalization is the process of converting an income stream into a capital sum (value). As with any method, the final value is no better than the reliability of the input data. The underlying assumption is that people purchase the property for the future income the property will yield. If the land or improvements are of any residual value after the cessation of oil and gas production, that value should also be included (if those components are also being appraised).

The relevant income that should be used is the expected future net income. Assumptions of this method are:

- Past income and expenses are not a consideration, except insofar as they may be a guide to estimating future net income.
- That the producing life as well as the reserves (quantity of the minerals) are estimated for the property.
- Future income is less valuable than current income, and so future net income must be discounted to make it equivalent to the present income. This discount factor reflects the premium of present money over future money, i.e., interest rate, liquidity, investment management, and risk.

As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., relies predominantly on the income approach to value in the appraisal of mineral interests.

DATA COLLECTION/VALIDATION

Sources of Data: The main source of P&A's property data is data from the Railroad Commission of Texas as reported by operators. As a monthly activity, the data processing department receives data tapes or electronic files which have updated and new well and production data. Other discovery tools are fieldwork by appraisers, financial data from operators, information from chief appraisers, tax assessors, trade publications and city and local newspapers. Other members of the public often provide P&A information regarding new wells and other useful facts related to property valuation.

Another crucial set of data to obtain is the ownership of these mineral interests. Typically a mineral lease is fractionated and executed with several if not many owners. This information is typically requested (under a promise of confidentiality concerning owners' personal information) from pipeline purchasers and/or other entities (such as operators) who have the responsibility of disbursing the income to the mineral interest owners. Another source of ownership information is through the taxpayers themselves who file deeds of ownership transfer and/or correspond with P&A or the appraisal district directly.

Data Collection Procedures: Electronic and field data collection requires organization, planning and supervision of the appraisal staff. Data collection procedures for mineral properties are generally accomplished globally by the company; i.e., production and price data for the entire state is downloaded at one time into the computer system. Appraisers also individually gather and record specific and particular information to the appraisal file records, which serves as the basis for the valuation of mineral properties. P&A is divided into four district offices covering different geographic areas. Each office has a district manager, appraisal and ownership maintenance staff, and clerical staff as appropriate. While overall standards of performance are established and upheld for the various district offices, quality of data is emphasized as the goal and responsibility of each appraiser.

VALUATION ANALYSIS (MODEL CALIBRATION)

Appropriate revisions and/or enhancements of schedules or discounted cash flow software are annually made and then tested prior to the appraisals being performed. Calibration typically involves performing multiple discounted cash flow tests for leases with varying parameter input to check the correlation and relationship of such indicators as: Dollars of Value Per Barrel of Reserves; Dollars of Value Per Daily Average Barrel Produced; Dollars of Expense Per Daily Average Barrel Produced; Years Payout of Purchase Price (Fair Market Value). In a more classical calibration procedure, the validity of values by P&A's income approach to value is tested against actual market transactions, if and when these transactions and verifiable details of these transactions are disclosed to P&A. Of course these transactions must be analyzed for meeting all requisites of fair market value definition. Any conclusions of this analysis are then compared to industry benchmarks for reasonableness before being incorporated into the calibration procedure.

INDIVIDUAL VALUE REVIEW PROCEDURES

Individual property values are reviewed several times in the appraisal process. P&A's discounted cash flow software dynamically generates various benchmark indicators that the appraiser reviews concurrent with the value being generated. These benchmarks often prompt the appraiser to reevaluate some or all of the parameters of data entry so as to arrive at a value more indicative of industry standards. Examples of indicators are dollars of value per barrel of oil reserve, years payout, etc. In addition to appraiser review, taxpayers are afforded the opportunity to review the appraised values, either before or after Notices of Appraised Value are prepared. Operators routinely meet with P&A's appraisers to review parameters and to provide data not readily available to P&A through public or commercial sources, such as individual lease operating expense and reserve figures. And of

course, all property values are subject to review through normal protest and Appraisal Review Board procedures, with P&A acting as an extension of the Office of the Chief Appraiser.

PERFORMANCE TESTS

An independent test of the appraisal performance of properties appraised by P&A is conducted by the State of Texas Comptroller's Office through the annual Property Value Study for school funding purposes. This study determines the degree of uniformity and the median level of appraisal for mineral properties. School jurisdictions are given an opportunity to appeal any preliminary findings. After the appeal process is resolved, the Comptroller publishes a report of the findings of the study, including in the report the median level of appraisal, the coefficient of dispersion around the median level of appraisal and any other standard statistical measures that the Comptroller considers appropriate.

USPAP STANDARDS 5, 6-1, 6-2: MASS APPRAISAL OF INDUSTRIAL, UTILITY AND RELATED PERSONAL PROPERTY

INTRODUCTION

Definition of Appraisal Responsibility (Scope of Effort): The Engineering Services Department of Pritchard & Abbott, Inc. (P&A) is responsible for developing fair and uniform market values for industrial, utility and personal properties.

P&A's typical client is a governmental entity charged with appraisal responsibility for ad valorem tax purposes, although other types of clients (private businesses, individuals, etc.) occasionally contract for appraisal services which are strictly for various non-ad valorem tax purposes so that no conflicts of interest are created with P&A's core ad valorem tax work.

P&A hereby makes the **assumption** that, in all appraisal assignments performed for governmental entities in satisfaction of contractual obligations related to ad valorem tax , the client does not wish to or cannot legally request the appraisal report not identify the client.

Intended users of our reports are typically the client(s) for which we are under direct contract. Although taxpayers or their agents who own and/or represent the subject property being appraised often receive these reports either by law or as a courtesy of the client or P&A, this receipt does not mean these parties automatically become Intended Users as defined by USPAP. **A party receiving a copy of a report in order to satisfy disclosure requirements does not become an intended user of the appraisal or mass appraisal unless the appraiser specifically identifies such party as an intended user.** Potential other users include parties involved in adjudication of valuation disputes (review board members, lawyers, judges, etc.), governmental agencies which periodically review our appraisals for various statutory purposes (such as the Texas Comptroller's Office) and private parties who may obtain copies of our appraisals through Open Records Requests made to governmental agencies.

This section of P&A's USPAP report is not applicable to any Industrial, Utility, or related Personal Property that an appraisal district appraises outside of P&A's appraisal services, in which case the appraisal district's overall USPAP report should be referenced.

P&A makes the **Extraordinary Assumption** that all properties appraised for ad valorem tax purposes are marketable whereas ownership and title to property are free of encumbrances and other restrictions that would affect fair market value to an extent not obvious to the general marketplace. If and/or when we are made aware of any encumbrances, etc., these would be taken into account in our appraisal in which case the extraordinary assumption stated above would be revoked.

P&A is typically under contract to determine current market value or "fair market value" of said industrial, utility, and related personal property. Fair market value is typically described as the price at which a property would sell for if:

- exposed in the open market with a reasonable time for the seller to find a purchaser;
- both the buyer and seller know of all the uses and purposes to which the property is, or can be, adapted and of the enforceable restrictions on its use; and

- both the buyer and seller seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other. [Exigencies are pressing or urgent conditions that leave one party at a disadvantage to the other.]

For ad valorem tax purposes the effective date is usually legislatively specified by the particular State in which we are working - for example, in Texas the lien date is January 1 per the Texas Property Tax Code. For ad valorem tax purposes, the date of the appraisals and reports are typically several months past the effective date, thereby leaving open the possibility that a retrospective approach is appropriate under limited and prescribed circumstances (information after the effective date being applicable only if it confirms a trend or other appraisal condition that existed and was generally known as of the effective date).

P&A believes this section of this report, in conjunction with any attached or separately provided P&A-generated report(s), meets the USPAP definition of "typical practice"; i.e., it satisfies a level of work that is consistent with:

- the expectations of participants in the market for the same or similar appraisal services; and
- what P&A's peers' actions would be in performing the same or similar appraisal services in compliance with USPAP.

Legal and Statutory Requirements: The provisions of the Texas Property Tax Code and relevant legislative measures involving appraisal administration and procedures control the work of P&A as a subcontractor to the Appraisal District. P&A is responsible for appraising property on the basis of its market value as of January 1 for ad valorem tax purposes for each taxing unit that imposes ad valorem taxes on property in the contracted Appraisal District. All industrial, utility and personal properties are reappraised annually. The definition of Fair Market Value is provided and promulgated for use in ad valorem tax work in Texas by the Texas Property Tax Code, and therefore as a **Jurisdictional Exception** supercedes the definition of "market value" as found in USPAP definitions.

Administrative Requirements: P&A follows generally accepted and/or recognized appraisal practices and when applicable, the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures. P&A, when applicable, also subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP). In all cases where IAAO and/or USPAP requirements cannot be satisfied for reasons of practicality or irrelevancy, P&A subscribes to "generally accepted appraisal methods and techniques" so that its value conclusions are credible and defendable. P&A submits annual or biannual contract bids to the Office of the Chief Appraiser and is bound to produce appraisal estimates on industrial, utility and personal properties within the cost constraints of said bid. Any appraisal practices and procedures followed by P&A not explicitly defined through IAAO or USPAP requirements are specified by the Texas Property Tax Code and/or at the specific request or direction of the Office of the Chief Appraiser.

Appraisal Resources

Personnel: The Engineering Services Department and P&A's appraisal staff consists of appraisers with degrees in engineering, business and accounting. All personnel are Registered Professional Appraisers with the State of Texas, or are progressing towards this designation as prescribed by the Texas Department of Licensing and Regulation (TDLR).

Data: A set of data characteristics (i.e. original cost, year of acquisition, quantities, capacities, net operating income, property description, etc.) for each industrial, utility and personal property is collected from various

sources. This data is maintained in either hard copy or computer files. Each property's characteristic data drives the appropriate computer-assisted appraisal approach to valuation.

Information Systems: P&A's mainframe computer system is composed of in-house custom software augmented by schedules and databases that reside as various applications on personal computers (PC). P&A offers a variety of systems for providing property owners and public entities with information services.

VALUATION APPROACH (MODEL SPECIFICATION)

Concepts of Value: The valuation of industrial, utility and personal properties is not an exact science, and exact accuracy is not attainable due to many factors. These are considered complex properties and some are considered Special Purpose properties. Nevertheless, standards of reasonable performance do exist, and there are reliable means of measuring and applying these standards.

The evaluation and appraisal of industrial, utility and personal property relies heavily on the discovery of the property followed by the application of recognized appraisal techniques. The property is subject to inflation and depreciation in all forms. The appraisal of industrial and personal property involves understanding petroleum, chemical, steel, electrical power, lumber and paper industry processes along with a myriad of other industrial processes. Economic potential for this property usually follows either the specific industry or the general business economy. The appraisal of utility properties involves understanding telecommunications, electrical transmission and distribution, petroleum pipelines and the railroad industry. Utility properties are subject to regulation and economic obsolescence. The examination of utility property involves the understanding of the present value of future income in a regulated environment.

The goal for valuation of industrial, utility and personal properties is to appraise all taxable property at "fair market value". The Texas Property Tax Code defines Fair Market value as 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 purchaser 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 purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Approaches to Value for Industrial, Utility, and Personal Property

Cost Approach: The use of cost data in an appraisal for market value is based upon the economic principle of substitution. This method is most readily applicable to the appraisal of industrial and personal property and some utility property. Under this method, the market value of property equals the value of the land plus the current cost of improvements less accrued depreciation. An inventory of the plant improvements and machinery and equipment is maintained by personally inspecting each facility every year. **As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., relies predominantly on the cost approach to value in the appraisal of industrial, utility, and personal property.**

Market Approach: This approach is characterized as one that uses sales data available from actual transactions in the market place. There are two factors that severely limit the usefulness of the market approach for appraising industrial, utility and personal properties. First, the property sales data is seldom disclosed; consequently there

is insufficient market data for these properties available for meaningful statistical analysis. Second, all conditions of sale must be known and carefully investigated to be sure one does have a comparative indicator of value. Many times when these properties do change hands, it is generally through company mergers and acquisitions where other assets and intangibles in addition to the industrial, utility and personal property are involved. The complexity of these sales presents unique challenges and hindrances to the process of allocation of value to the individual components of the transaction.

In the case of industrial, utility and personal properties, a scarcity of sales requires that all evidence of market data be investigated and analyzed. Factors relative to the sale of these properties are:

- plant capacity and current production; terms of sale, cash or equivalent;
- complexity of property;
- age of property;
- proximity to other industry already operated by the purchaser; and
- other factors such as capital investment in the property.

As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., rarely employs a rigorous application of the market approach in the appraisal of industrial, utility, and personal property.

Income Approach: This approach to value most readily yields itself to all income generating assets, especially utility properties. Data for utility properties is available from annual reports submitted to regulatory agencies whereby future income may be estimated, and then this future income may be converted into an estimate of value. The valuation of an entire company by this method is sometimes referred to as a Unit Value. Many refer to this as a capitalization method, because capitalization is the process of converting an income stream into a capital sum (value). As with any method, the final value estimate is no better than the reliability of the input data. The underlying assumption is that people purchase the property for the future income the property will yield.

The relevant income that should be used in the valuation model is the expected future net operating income after depreciation but before interest expense (adjustments for Federal Income Taxes may or may not be required). Assumptions of this method are:

- Past income and expenses are a consideration, insofar as they may be a guide to future income, subject to regulation and competition.
- The economic life of the property can be estimated.
- The future production, revenues and expenses can be accurately forecasted. Future income is less valuable than current income, and so future net income must be discounted to make it equivalent to the present income. This discount factor reflects the premium of present money over future money, i.e., interest rate, liquidity, investment management, and risk.

As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., employs the income approach in the appraisal of industrial and utility property only when quantifiable levels of income are able to be reliably determined and/or projected for the subject property. P&A does not employ the income approach in the appraisal of personal property.

DATA COLLECTION/VALIDATION

Sources of Data: The main source of P&A's property data for industrial and personal property is through fieldwork by the appraisers and commercially/publicly available schedules developed on current costs. Data for

performing utility appraisals is typically provided by the taxpayer or is otherwise available at various regulatory agencies (Texas Railroad Commission, Public Utilities Commission, FERC, et. al.). Other discovery tools are financial data from annual reports, information from chief appraisers, renditions, tax assessors, trade publications and city and local newspapers. Other members of the public often provide P&A information regarding new industry and other useful facts related to property valuation.

Data Collection Procedures: Electronic and field data collection requires organization, planning and supervision of the appraisal staff. Data collection procedures have been established for industrial and personal properties. Appraisers gather and record information in the mainframe system, where customized programs serve as the basis for the valuation of industrial, utility and personal properties. P&A is divided into multiple district offices covering different geographic zones. Each office has a district manager and field staff. While overall standards of performance are established and upheld for the various district offices, quality of data is emphasized as the goal and responsibility of each appraiser. Additionally, P&A's Engineering Services Department provides supervision and guidance to all district offices to assist in maintaining uniform and consistent appraisal practices throughout the company.

VALUATION ANALYSIS (MODEL CALIBRATION)

The validity of the values by P&A's income and cost approaches to value is tested against actual market transactions, if and when these transactions and verifiable details of the transactions are disclosed to P&A. These transactions are checked for meeting all requisites of fair market value definition. Any conclusions from this analysis are also compared to industry benchmarks before being incorporated in the calibration procedure. Appropriate revisions of cost schedules and appraisal software are annually made and then tested for reasonableness prior to the appraisals being performed.

INDIVIDUAL VALUE REVIEW PROCEDURES

Individual property values are reviewed several times in the appraisal process. P&A's industrial, utility, personal property programs and appraisal spreadsheets afford the appraiser the opportunity to review the value being generated. Often the appraiser is prompted to reevaluate some or all of the parameters of data entry so as to arrive at a value more indicative of industry standards. Examples of indicators are original cost, replacement cost, service life, age, net operating income, capitalization rate, etc. In addition to appraiser review, taxpayers are afforded the opportunity to review the appraised values either before or after Notices of Appraised Value are prepared. Taxpayers, agents and representatives routinely meet with P&A's appraisers to review parameters and to provide data not readily available to P&A through public or commercial sources, such as investment costs and capitalization rate studies. And of course, all property values are subject to review through normal protest and Appraisal Review Board procedures, with P&A acting as a representative of the Office of the Chief Appraiser.

PERFORMANCE TESTS

An independent test of the appraisal performance of properties appraised by P&A is conducted by the State of Texas Comptroller's Office through the annual Property Value Study for school funding purposes. This study determines the degree of uniformity and the median level of appraisal for utility properties. School jurisdictions are given an opportunity to appeal any preliminary findings. After the appeal process is resolved, the Comptroller publishes a report of the findings of the study, including in the report the median level of appraisal, the coefficient of dispersion around the median level of appraisal and any other standard statistical measures that the Comptroller considers appropriate.