

LAVACA COUNTY CENTRAL APPRAISAL DISTRICT



**APPROVED REAPPRAISAL PLAN
TAX YEARS 2027-2028**

**ADOPTED BY THE BOARD OF DIRECTORS
SEPTEMBER 8, 2026**

BY RESOLUTION 2026-01

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Executive Summary

The Lavaca County Central Appraisal District has prepared and published this reappraisal plan to provide the Board of Directors, taxpayers and citizens of Lavaca County a better understanding of the district's responsibilities and activities.

The Lavaca County Central Appraisal District (LCCAD) is a political subdivision of the State of Texas created January 1, 1980. The legal, statutory and administrative responsibilities and activities of the appraisal district are governed by the provisions of the Texas Property Tax Code

The governing body of the appraisal district is a seven-member (7) Board of Directors that includes a non-voting County Tax Assessor/Collector. The Board is appointed by the taxing units within the boundaries of Lavaca County. The Chief Appraiser who is the chief administrator and chief executive officer of the appraisal district is appointed by the Board of Directors.

The appraisal district is responsible for the appraisal of all real and personal property in Lavaca County for property tax purposes, the administration of all types of exemptions and agricultural productivity values for 17 taxing units. Once property values are certified the taxing units governing bodies set a tax rate to generate a tax levy. This levy is used to pay for such things as police and fire protection, public schools, road and street maintenance water and sewer systems and other public services.

PROPOSED REAPPRAISAL PLAN

TAX CODE REQUIREMENT

S.B. 1652 enacted in 2005 by the Texas Legislature, amended section 6.05 of the Property Tax Code to require a written biennial reappraisal plan. The following details the changes to the Tax Code:

The Written Plan

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

- (i) To ensure adherence with generally accepted appraisal practices, the board of directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the 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 of 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.

PLAN FOR PERIODIC REAPPRAISAL

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

- (a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
- (b) The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:
 - (1) Identifying properties to be appraised through physical inspection or by other reliable means of identification. Including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches;
 - (2) Identifying and updating relevant characteristics of each property in the appraisal records;
 - (3) Defining market areas in the district;
 - (4) Identifying property characteristics that affect property value in each market area, including:
 - (A) The location and market area of the property;
 - (B) Physical attributes of property, such as size, age, and condition;
 - (C) Legal and economic attributes;
 - (D) Easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;
 - (5) Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;
 - (6) Applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
 - (7) Reviewing the appraisal results to determine value

REVALUATION POLICY (REAPPRAISAL CYCLE)

In each year covered by the plan, LCCAD will conduct a complete appraisal analysis of all properties in the district and will update property values as necessary. The chief appraiser will provide a notice of appraised value for each property in compliance with section 25.19 of the Tax Code. The activities involved in the appraisal analysis are described below.

ANNUAL ACTIVITIES

1. Performance Analysis – the values from the previous Tax Year will be analyzed with ratio studies to determine the appraisal accuracy and appraisal uniformity overall and by market area within property reporting categories. Ratio studies will be conducted in compliance with the Uniform Standards of Professional Appraisal Practice (USPAP). Pertaining to mass appraisal techniques. Ratio studies will be conducted in compliance with USPAP standard pertaining to mass appraisal techniques.
2. Available Resources – staffing and budget requirements for tax years 2027 and 2028 are presented in the 2026-2027 budget as proposed to the board of directors. 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 License and Registration. The appraisal district staff consists of ten full time employees with the following classifications:
 - a. Chief Appraiser
 - b. Deputy Chief
 - c. Personal Property and Field Appraisers
 - d. Administrative support, customer service, clerical and other
3. Shared Appraisal District Boundaries – The district established procedures whereby ownership and property data information are routinely exchanged within over-lapping jurisdictional boundaries. Appraisers from adjacent appraisal districts discuss data collection and valuation issues to minimize the possibility of differences in property characteristics, legal descriptions, and other administrative data. Property overlapping taxing unit or appraisal boundaries will be appraised in compliance with Section 25.17 of the Tax Code.
4. Mass Appraisal System – LCCAD's Computer Assisted Mass Appraisal system is purchased from a contracted vendor that specializes in providing such services to appraisal districts.
5. Data Collection Requirements – field and office procedures will be reviewed and revised as required for data collection. Activities scheduled for each Tax Year include new construction, demolition, remodeling, re-inspection of

problematic market areas, re-inspection of the universe of properties is preformed through field review that is prioritized, and field or office verification of sales data and property characteristics. Re-inspection of properties will be completed using physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches.

6. Pilot study by Tax Year – new and revised mass appraisal models will be tested each Tax Year. Ratio studies, by market area, will be conducted on proposed values each Tax Year. Proposed values on each category will be tested for accuracy and reliability in selected market areas. Pilot modeling and ratio studies will be conducted in accordance with the *Uniform Standards of Professional Appraisal Practice (USPAP)*.
7. Valuation by Property Type – using market analysis of comparable sales, locally tested cost data, and income analysis, valuation models will be specified and calibrated in compliance with supplemental standards from USPAP. The calculated values will be tested for accuracy and uniformity using ratio studies.
8. The Mass Appraisal Report – each Tax Year the Tax Code requires a mass appraisal report to be prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The mass appraisal report is completed in compliance with USPAP Standard Rule 6-8. The signed certification by the chief appraiser is compliant with USPAP Standard Rule 6-9.
9. Value Defense – evidence to be used by the appraisal district to meet its burden of proof for market value and equity in formal appraisal review board hearings will be developed and made available.

2027-2028
REAPPRAISAL PLAN DETAIL

APPRAISAL ANALYSIS & DELIVERY OF NOTICES

In each year covered by the plan, LCCAD will conduct a complete appraisal analysis of all *residential. Mobile homes. non-residential improvements i.e. camp houses, barns etc. All land, commercial buildings, business personal property and industrial and oil and gas* properties in the district and will update property values as necessary. The chief appraiser will provide a notice of appraisal for each property if the amount of increase in appraised value is \$1,000 more or less than the previous year and in compliance with section 25.19 of the Tax Code. Market areas that have existing values consistent with the market and demonstrate uniformity will be noticed at current year value levels. The activities involved in the appraisal analysis are described below.

PERFORMANCE ANALYSIS

For each Tax Year, the previous year's equalized values will be analyzed with ratio studies to determine appraisal accuracy and appraisal uniformity overall and, by market area within state property reporting categories. Ratio studies will be conducted in compliance with USPAP. Descriptive statistics, such as, mean, median, and weighted mean ratios will be calculated for properties in each reporting category to measure the level of appraisal accuracy and the coefficient of dispersion (COD) will be calculated to measure appraisal uniformity by property reporting category. This analysis will be used to develop the starting point for establishing the accuracy and uniformity of appraisal performance.

ANALYSIS OF AVAILABLE RESOURCES

Staffing and budgetary requirements for Tax Year 2027 are presented in the district's 2027 budget, as proposed to the board of directors. This reappraisal plan reflects the available staffing in Tax Year 2026 and the anticipated staffing for Tax Year 2027. Staffing will impact the cycle of real property re-inspection and personal property on-site review that can be accomplished in the 2027-2028 time period.

PLANNING AND ORGANIZATION

Production standards for field and office activities will be established and incorporated in the scheduling process. The scope of work, available time frame, staffing resources, and any budgetary constraints have been considered in the development of this reappraisal plan. To the extent that circumstances require revision to this plan. Amendments to the plan will be submitted to the board of directors for approval.

MASS APPRAISAL SYSTEM

Computer Assisted Mass Appraisal (CAMA) system revisions and enhancements will be specified and prioritized by an outside firm under contract with LCCAD. Legislative mandates will be addressed and implemented into the necessary system applications. All computer-generated forms, letters, notices and orders will be reviewed annually and revised as required. The following details the procedures as they relate to the 2027 and 2028 Tax Years.

REAL PROPERTY VALUATION

Revisions to valuation models will be specified updated and tested each Tax Year. In each year, cost schedules will be tested with market data to ensure that the appraisal district is in compliance with Section 23.011 of the Tax Code. Replacement cost new tables as well as depreciation will be tested for accuracy and uniformity through ratio studies and comparison with cost data from *Marshall & Swift Services*, which is a nationally recognized cost estimator service.

Land tables will be updated using current market data and then tested with ratio studies. Restrictions, covenants, and other factors influencing value will be identified and analyzed. Value modifiers will be developed for property categories by market area as required, and tested with ratio studies.

PERSONAL PROPERTY VALUATION

Derive appropriate values of all Personal Property annually by means of required Personal Property Renditions, physical inspection and by prevailing value for similar properties in the district. New accounts will be added by discovery from local publications, field inspections and owner notification to the district. Personal Property Renditions as prescribed by Sec.22.01 of the Texas Property Tax Code will be mailed to all businesses annually.

APPRAISAL NOTICES

Appraisal notices will be reviewed for legal sufficiency and correctness. Enclosures will be updated, including the latest version of the comptroller's *Taxpayers Rights, Remedies, and Responsibilities*. All property notices will be mailed in compliance with Section 25.19 of the Tax Code.

HEARING PROCESS

Training of staff will be conducted in May of each Tax Year to ensure preparedness for informal and formal hearings, which generally begin in June of each Tax Year. Revisions and enhancements to existing hearing scheduling procedures for formal appraisal review board hearings will be reviewed and updated to ensure efficiency and timely certification of the appraisal roll.

IDENTIFYING & UPDATING RELEVANT PROPERTY CHARACTERISTICS

Field and office procedures will be reviewed and revised as required for data collection and verification of value-related and descriptive property characteristics for each property. Activities scheduled for each Tax Year include inspection of new construction, demolition, and remodeling, re-inspection of problematic market areas, and re-inspection of the universe of properties through prioritized field reviews, and verification of sales information.

NEW CONSTRUCTION/REMODELING/DEMOLITION

Field and office review procedures for inspection of new construction will be reviewed and revised as required. Building permits will be received from the cities in paper form, electrical connections and septic permits will be received from the County Judge's office in paper form and Mechanics Liens from the County Clerk's office. CAMA system uploads and data entry will both be used to input the data into the database. The process of verifying demolition of improvements will be specified. Areas with extensive improvement remodeling will be identified and on-site inspections will be scheduled to verify property characteristic data. Updates to valuation procedures will be tested with ratio studies before they are finalized in valuation modeling.

RE-INSPECTION OF PROBLEMATIC MARKET AREAS

Real property market areas, stratified by property classification, will be tested for low or high sales ratios and high coefficients of dispersion. Market areas that fail any or all of these tests will be determined to be problematic. Field reviews will be scheduled to verify and correct property characteristics data. Additional sales data will be researched and verified in order to assess whether the market area is correctly defined. In the absence of adequate market data, neighborhood boundary lines may need to be redrawn and neighborhood clusters, representative of the overall market area will be established.

MARKET AREA DELINEATION

Market areas are defined by the physical, economic, governmental and social forces that influence property values. The effects of these forces were used to identify, classify, and stratify or delineate similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes. Delineation can involve the physical drawing of neighborhood boundary lines on a map, or it can also involve statistical separation or stratification based on attribute analysis. These homogeneous properties have been delineated into valuation neighborhoods for residential property or economic class for commercial property, but because there are discernible patterns of growth that characterize a neighborhood or market segment, LCCAD staff will annually evaluate the neighborhood boundaries or market segments to ensure homogeneity of property characteristics.

RE-INSPECTION OF THE UNIVERSE OF PROPERTIES

The Texas Property Tax Code, Section 25.18 (b) requires the reappraisal of the universe of properties at least once every three years. Approximately one-third of the existing property base will be inspected during 2027 and 2028. Re-inspection of properties will be completed using a combination of field inspections and office review. Office review of property for the 2027 and 2028 tax year will include the examination of aerial photography, property sketches and existing property characteristics.

FIELD OR OFFICE VERIFICATION OF SALES DATA AND PROPERTY CHARACTERISTICS

Sales information will be verified and property characteristics data contemporaneous with the date of sale will be captured. Since Texas does not require full disclosure of sale price, the district will obtain sales prices through deeds, voluntarily disclosed closing statements or fee appraisals usually submitted as evidence in a protest hearing. Buyer and seller mail questionnaires, or third-party sources such as, real estate agents and market data vendors.

LEGAL ATTRIBUTES AFFECTING VALUE

The district will identify and describe elements of recorded conveyances that will affect the use or value of the property, such as easements, covenants, reservations, and declarations. The district will also monitor the enactment or changes of governmental restrictions affecting property value, such as zoning, health ordinances, special assessments, and other legal restrictions. Where leases and other possessory interests are of a nature and duration that they affect value, they will be considered in the individual valuation of the property to which they apply.

PILOT STUDY

New or revised mass appraisal models will be tested on randomly selected market areas. Sales ratio studies will be used to test the models. Actual test results will be compared against anticipated results and those models not performing satisfactorily will be refined and retested. The procedures used for model specification and model calibration will comply with USPAP Standard Rule 5 and 6, for the applicable year.

VALUATION METHODS BY PROPERTY TYPE

For each Tax Year, valuation models will be specified and calibrated in compliance with the supplemental standards from USPAP. The calculated values will be tested for accuracy and uniformity using ratio studies. Performance standards will be in compliance with the guidelines as set forth by USPAP. Property values in all market areas will be analyzed and updated each reappraisal year as required for level and uniformity of value.

RESIDENTIAL REAL PROPERTY

Ratio studies will be conducted on all of the residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy--level and uniformity of value. The valuation process for residential property historically begins by September. Land analysis, sales outlier review, neighborhood sales analysis, and finalization of proposed estimates of value will likely occur from September to April.

Valuation Method Used

Cost Approach

The district will use a hybrid cost-market approach when valuing single-family and multi-family residential properties. The comparative unit method will be used to develop the "base" cost of a structure. Table-driven cost factors taken from *Marshall & Swift* will be adjusted for local or regional differences in construction and labor costs. Neighborhood or location adjustment factors will be developed from appraisal statistics provided by ratio studies to ensure that estimated values reflect both the supply and demand side of the market. The following equation denotes the hybrid model used:

$$MV = MA [RCN - D] + LV$$

The market value (MV) equals the market adjustment factor (MA) applied to the replacement cost new less depreciation (RCNLD), plus the land value (LV). Market adjustments will be applied uniformly within neighborhoods to account for location variances between market areas or across a jurisdiction.

Residential land values will be estimated using the base lot method, which establishes the value of the standard, or "base" parcel within each stratum or delineated neighborhood through sales comparison analysis. The analysis assumes that the major factors causing variations among land values within a neighborhood are location, traffic, and size. In areas where insufficient vacant land sales exist, the abstraction method, also known as the land residual method and the allocation method, known as the land ratio method will be used to establish base lot values within a neighborhood. The analysts will develop a base lot and primary rate and assign each unique neighborhood to one of the land tables. The land table is designed to systematically value the primary and residual land based on a specified percentage of the primary rate. A computerized land table stores the land information required to consistently value individual parcels within neighborhoods. Land adjustments will be applied on individual properties, where necessary, to adjust for such influences as shape, size, and topography, among others.

If a neighborhood is to be updated, the analyst will run a cost ratio study that compares recent sales prices of properties appropriately adjusted for the effects of time and stratified geographically by neighborhood with the property's cost value. The calculated ratio derived from the sum of the sold properties' cost value divided by the sum of the sales prices indicates the neighborhood level of value based on the unadjusted cost value for the sold properties. This cost-to-sale ratio will be compared to the appraisal-to-sale ratio to

determine the market adjustment factor for each neighborhood. This market adjustment factor is needed to trend the values obtained through the cost approach closer to the actual market evidenced by recent sales prices within a given neighborhood. The sales used to determine the market adjustment factor will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor calculated for each updated neighborhood will be applied uniformly to all properties within a neighborhood and a second set of ratio studies will be generated that compares recent sale prices with the proposed market values for these sold properties. From this set of ratio studies, the analyst will judge the appraisal level and uniformity in both update and non-update neighborhoods, and finally, for the school district as a whole.

An extensive review and revision of the residential cost schedules will be performed before each reappraisal year. Samples of newly constructed sold properties of varying construction quality in LCCAD will be reviewed. The property characteristics of these sampled properties will be verified and photographs will be taken. LCCAD dwelling costs will be compared against *Marshall & Swift*. This process includes correlation of quality of construction factors from LCCAD and *Marshall & Swift*. The results of this comparison will be analyzed using several measures, including stratification by quality and review of estimated building costs, as well as land value to sales prices.

Sales Comparison Approach

In the absence of a sale of the subject sales prices of comparable properties are usually considered the best evidence of market value. The sales comparison approach models the behavior of the market by comparing the properties being appraised with comparable properties that have recently sold. Their sales prices will then be adjusted for differences from the subject and a market value for the subject is estimated from the adjusted sales prices of comparable properties.

The district currently develops estimates of value for single-family properties using the traditional sales comparison approach.

Income Approach

The income approach is based on the principle that the value of an investment property reflects the quality and quantity of the income it is expected to generate over its life. In other words, value is the estimated present value of future benefits, namely income and proceeds from the sale of the property. The appraiser must estimate income from a property and capitalize the income into an estimate of current value.

The model used to estimate the present value of income expected in the future is represented by the following formulas known as IRV.

$$\text{Value} = \text{Income} / \text{Rate} \text{ or, } \text{Income} = \text{Rate} \times \text{Value} \text{ or, } \text{Rate} = \text{Income} / \text{Value}$$

The income approach is most suitable for types of properties frequently purchased and held for the purpose of producing income, such as apartments, commercial buildings, and office buildings. It is not conducive to the valuation of single-family residential properties that are seldom rented, or where market demand factors such as personal preferences or location unduly influence the market.

However, in LCCAD income information is generally either nonexistent or not available to validate its accuracy. So therefore, the income approach is usually not employed but is considered when information is provided by the property owner.

INVENTORY RESIDENTIAL PROPERTY

Residential improved and vacant property is appraised in compliance with the Texas Property Tax Code, Section 23.12 (a).

In general, the district uses its own land value estimates and the actual itemized construction, labor, and material costs, plus other soft or indirect costs to estimate market value as of the assessment date. The market values of improved inventory will be reviewed annually and inventory consideration will be eliminated when ownership transfers to the property owner. As with improved inventory, full market value will be applied once the vacant land is absorbed and ownership transfers for the purpose of residential construction

COMMERCIAL REAL PROPERTY

The valuation period will begin in September and last until the end of April. Once proposed values are calculated, a ratio study will be performed to test the level and uniformity of appraisal within property use and among various classes. Commercial properties will be valued by the cost approach, the income approach, or the market approach as deemed most appropriate pursuant to section 23.01.

Valuation Method Used

Cost Approach

The cost approach to value will be applied using the comparative unit method. This methodology involves the use of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on *Marshall & Swift Services*. Cost models include the use of replacement cost new (RCN) of all improvements. The replacement cost will be used because it values the cost of a property that is a utility equivalent of the property being appraised using current construction methods and materials. This method is alternative to using the reproduction cost which is the cost to construct an exact duplicate of the property being appraised. These costs include comparative base rates, per unit adjustments and lump sum adjustments. Because a national cost service is used as a basis for our cost models, local modifiers will be applied to adjust the base costs specifically for Lavaca County.

Depreciation schedules are used based on what is typical for each property type. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. These schedules will be tested every other year to ensure they will be reflective of current market conditions. The actual age of improvements will be noted in the CAMA software when available.

Adjustment factors such as external and functional obsolescence will be applied, if warranted. A depreciation factor will be applied if the condition or effective age of a property is warranted. This depreciation is indicated by appropriately noting the physical condition and functional utility on the property data characteristics. These adjustments will typically be applied to a specific property type or location and will be developed through ratio studies or other market analyses.

Sales Comparison 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 as a primary method for estimating land value but also in comparing sales of similarly improved properties to each parcel on the appraisal roll. Pertinent data from actual sales of properties, both vacant and improved will be obtained throughout the year in order to analyze relevant information, which is then used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the cost approach, rates and multipliers used in the income approach, and as a direct comparison in the sales comparison approach. Improved sales will also be used in ratio studies, which afford the analyst an excellent means of judging the present level and uniformity of the appraised values.

Based on the market data analysis and review discussed in the cost, income and sales approaches, the models will be calibrated annually. The calibration results will be keyed to the schedules and models in our CAMA system for utilization on all properties in the district.

Income Approach

The income approach to value will be applied to those real properties that are typically viewed by market participants as "income producing," which are bought and sold based on the property's ability to produce income and for which the income methodology is considered a leading value indicator. The first step in the income approach pertains to the estimation of market rent. This is derived primarily from actual rent data furnished by property owners and from local market study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

A vacancy and collection loss allowance is the next item to consider in the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by property owners and on local market publications. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential

gross rent estimate to yield an effective gross rent. A secondary income or service income is calculated as a percentage of stabilized effective gross rent. Secondary income represents parking income, escalations, and 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 or EGI subtracted from the potential gross rent estimate to yield an effective gross rent.

A secondary income or service income is calculated as a percentage of stabilized effective gross rent. Secondary income represents parking income, escalations, and 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 or EGI.

Allowable expenses and expense ratio estimates will be based on a study of the local market, with the assumption of "prudent management." An allowance for non-recoverable expenses such as leasing costs and tenant improvements will be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios will be developed for different types of commercial property based on use. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for his pro-rata share of taxes, insurance and common area maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Under this scenario, the total operating expense in year one establishes the base rate. Any increase in expense over the base rate throughout the remainder of the lease term would be the responsibility of the tenant. As a result, expense ratios will be implemented based on the type of commercial property.

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

Rates and multipliers will be used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers also vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market.

Capitalization analysis will be used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analyses will be derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time.

Additionally, overall capitalization rates can be derived from the built-up method, band-of-investment, debt coverage ratio and published sources for similar properties, as well as results from verified sales. The capitalization rates relate to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications, as well as cap rate studies conducted by the district using verified sales and income information for that specific property.

Rent loss concessions will be made on specific properties with known 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 will be 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) and leasing expenses will be added to the rent loss estimate. A leasing expense necessary to bring the property to a stabilized level is also included in this adjustment. The total adjusted loss from these real property operations will be 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 will be deducted from the value estimate of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's actual occupancy is less than stabilized occupancy a rent loss deduction may be estimated. Conversely, if a property were above the stabilized occupancy level as of the appraisal date, the market would pay a premium for this situation. In this instance the present value of the excess income over the stabilized level will be added to the value of the property.

As stated earlier the income approach is usually not employed by LCCAD but is considered when provided by the property owner.

MINERAL, INDUSTRIAL, UTILITY AND RELATED PERSONAL PROPERTY

The Lavaca County Central Appraisal District historically contracts with an appraisal firm for the annual appraisal for ad valorem tax purposes of mineral, industrial, utility and related personal property. LCCAD is presently under contract with Pritchard & Abbott, Inc. Valuation Consultants through the tax year 2028 for their appraisal of the above categories of property.

S.B. 1652 Biennial Reappraisal Plan for the annual appraisal for ad valorem tax purposes of mineral, industrial, utility and related personal property for the Tax Years 2027 and 2028, prepared by Pritchard and Abbott Inc. Valuation Consultants, is attached and incorporated as part of the Lavaca County Central Appraisal District's Reappraisal Plan for the Tax Years 2027 and 2028. If LCCAD should contract with another firm for the tax years 2027-2028, this plan will be amended.

BUSINESS TANGIBLE PERSONAL PROPERTY

These property types will be valued each Tax Year by district appraisal staff and contract appraisal firms. Generally, estimates of value developed by the appraisal firms will be provided to LCCAD in mid-May of each Tax Year. The notices of appraised value for business and industrial personal property are generally mailed in mid-May or as soon as practical.

Valuation Method Used

Cost Approach

The primary approach to the valuation of business and industrial personal property will be the cost approach.

Valuation models will be created and refined using actual original cost data to derive the replacement cost new per square foot (or applicable unit) for a specific category of assets. Individual accounts will be selected as a sample to be field checked. Models will be built and adjusted using internal software. These models will be tested against the prior year's data. The typical RCN per applicable unit is determined by a statistical analysis of the available data.

These model values will be used to estimate the value of new accounts for which no property owner's rendition is filed. They also establish parameters for testing the valuation of property for which prior years' data exist or for which current year rendered information is available. If the value tested falls within an established acceptable percentage tolerance range of the model value, the account passes that range check and moves to the next valuation step. If, ~~the~~ account fails it is flagged for individual review. These tolerances may be adjusted for the current year depending on the analysis of the results of the prior year. This approach uses RCN, which is developed from property owner reported historical cost or from existing valuation models. The trending factors used to develop RCN will be based on the national average for equipment as published in various valuation services. RCN is calculated as follows:

$$\text{RCN} = \text{HISTORICAL COST} \times \text{INDEX FACTOR}$$

The percent good depreciation factors will be based on the depreciation schedules for furniture, fixtures, and equipment as published in various valuation services. This mass appraisal percent good depreciation schedule is used to ensure that estimated values are uniform and consistent within the market. RCN and percent good depreciation factors will be utilized to develop value estimates using the following formula:

$$\text{MARKET VALUE ESTIMATE} = \text{RCN} \times \text{PERCENT GOOD FACTOR}$$

Leased and multi-location assets may be valued using original costs and the index factors and percent good depreciation schedules mentioned above. When these assets are valued using Present Value Factor (PVF) schedules, PVF will be calculated as follows:

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

Sales Comparison Approach

Business personal property is typically sold as part of the business as a whole and not by itself, which makes this approach unsuitable for valuing most personal property. This approach is only suitable for the valuation of certain types of vehicles and heavy equipment. Value estimates for vehicles will be provided by an outside vendor and are based on data furnished by National Market Reports. An appraiser using published market guides such as NADA book values will appraise these types of properties.

Income Approach

The income approach has limited use in the appraisal of machinery. Equipment, furniture, fixtures, and leasehold improvements because of the difficulty in estimating future net benefits; except in the case of certain kinds of leased equipment. When reliable data on equipment leases is available, the income approach may be used to estimate fair market value of the equipment.

MOBILE HOMES

Real and personal property mobile homes will be valued using the cost approach. LCCAD cost and depreciation schedules will be compared against *N.A.D.A. Guides*, a nationally recognized pricing service and *Marshall & Swift*. *N.A.D.A. Guides* will be used primarily to update cost schedules for used mobile homes and *Marshall & Swift* will be used to update cost schedules for new mobile homes.

The district will obtain from the Texas Department of Housing and Community Affairs a list of transferred mobile homes to input into our CAMA system. Clerical staff will then generate questionnaires seeking information on sales price, serial and HUD numbers, make and model, and ownership. Master lists identifying mobile home parks will be generated annually and used by appraisal staff to verify situs.

According to Section 25.08€, Tax Code, a manufactured home placed on land owned by the same person will not be considered as real property unless the owner has filed a "Statement of Ownership and Location" with the county clerk or County tax assessor. Unless this statement is filed the manufactured home will be carried in our records as personal property.

SPECIAL USE PROPERTY VALUATION -AGRICULTURAL/WILDLIFE PROPERTY

The appraisal district values agricultural land in compliance with the Property Tax Code's *Manual for the Appraisal of Agricultural Land*, which states that the cash lease method and the share lease method of appraisal are appropriate.

Since most properties are leased by the owners to lessee for various agricultural purposes, LCCAD will use the cash lease method of appraisal. The cash lease method is a modified income approach using the lease amount (income per acre) minus expenses (landowner) to give us the "net-to-land" value per acre. "Net-to-land" values will be averaged for a five-year period

to give an average "net-to-land" factor that will be divided by the capitalization rate for the year to give a value per class of agricultural production. The agriculture appraisal staff will collect lease data from the lessee on a yearly basis.

Wildlife appraisal is revenue neutral, so whatever the previous agricultural use was prior to converting to wildlife management will be the value used.

THE MASS APPRAISAL REPORT

Each Tax Year, the mass appraisal report is prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The mass appraisal report is completed in compliance with USPAP Standard Rule 5-6. The signed certification by the chief appraiser is compliant with USPAP Standard Rule 5-10.

VALUE DEFENSE

Evidence to be used by the appraisal district to meet its burden of proof for market value and equity in both informal and formal appraisal review board hearings will be developed and provided to the property owner or agent in compliance with HB 201. After a protest is received and verified, hearing evidence will be generated and be made available.

MARKET AREAS

Lavaca County has established a division of market areas that coincide with the boundaries established by the counties school districts. These market areas will be monitored on a yearly basis by using the appraisal districts schedules and will be adjusted in accordance to USPAP and the Texas Property Tax Code. Any market area reflecting an over or under valuations will be adjusted accordingly. These market areas are:

- Ezzell ISD
- Hallettsville ISD
- Moulton ISD
- Shiner ISD
- Sweet Home ISD
- Vysehrad ISD
- Yoakum ISD
- Weimar ISD

2027 REAPPRAISAL PLAN SCHEDULE

After the rolls are certified in July 2026 the following appraisal activities are performed for the preparation of the 2027 Reappraisal Plan:

Determine which sections of the county are next in the rotation cycle to be reappraised

- Print maps of selected sections
- Print property cards of all properties located in the selected sections
- Match property cards to corresponding map sections and route for reappraisal
- The printing of maps, property cards and routing of the selected sections continue until all reappraisals are completed no later than April 15, 2027.

By August 31, 2026 complete the following:

- Perform ratio studies for all types of properties in county by school district to identify any problematic market areas
- Any areas that are identified to be problematic will be reappraised
- Print city of Moulton property cards and start viewing on aerial photography.

September 1, 2026 through April 15, 2027 the following sections/pages of the county will be inspected by onsite visits, aerial photography or other visual methods

- September-April – All properties in the city of Yoakum approximately 1,988 accounts. Pickup all new residential and commercial improvements and review all problematic areas
- October map pages: 163,164,181,182,198,199,215,216
✓ **Approximately 568 Accounts**
- November map pages: 161,162,179,180,196,197,213,214,229,230
✓ **Approximately 528 Accounts**
- December map pages: 194,195,211,212,227,228
✓ **Approximately 528 Accounts**
- January map pages: 174,175,176,192,193,209,210,226
✓ **Approximately 488 Accounts**
- February map pages: 241,242,243,244,245,255,256,257,258,267,268,269
✓ **Approximately 582 Accounts**
- March map pages: 277,278,279,286,287,288,289,290,291,292,293,294,295,296,297
• 298,299,300,301,302,303,304,305,306,307,308,309,310,311
✓ **Approximately 556 Accounts**
- April: Complete all field inspections and rechecks. All Business Personal Property

By January 15, 2027 mail the following:

- ✓ 2027 Business Personal Property Renditions – Comptroller Form 50-144
- ✓ 2027 Homestead/Over 65 Exemption Applications
- ✓ 2027 1-d-1 (Open Space) Agricultural Use Applications
- ✓ Annual Charitable and Abatement Applications
- ✓ 2027 Hotel/Motel Income and Expense Questionnaires
- ✓ Miscellaneous Exemption Applications

All appraisal work to be completed by April 14, 2027

Process and mail 2027 Notice of Appraised Values by May 1st or as soon thereafter as practical

Appraisal Review Board Begin June 4, 2027

Appraisal Review Board Approves Records no later than July 20, 2027

Chief Appraiser certify 2027 Appraisal Rolls to taxing entities no later than July 25, 2027

After the 2027 Appraisal Rolls are certified in July appraisal activities start for the preparation of the 2028 Reappraisal Plan.

2028 REAPPRAISAL PLAN SCHEDULE

After the rolls are certified in July 2027 the following appraisal activities are performed for the preparation of the 2028 Reappraisal Plan:

- Determine which sections of the county are next in the rotation cycle to be reappraised
- Print maps of selected sections
- Print property cards of all properties located in the selected sections
- Match property cards to corresponding map sections and route for reappraisal

The printing of maps, property cards and routing of the selected sections continue until all reappraisals are completed no later than April 14, 2027.

By August 31, 2027 complete the following:

- Perform ratio studies for all types of properties in county by school district to identify any problematic market areas
- Any areas that are identified to be problematic will be reappraised.
- Print City of Shiner property cards and start view aerial photography

September 1, 2027 through April 15, 2028 the following sections of the county will be inspected by onsite visits, aerial photography or other visual methods:

- September-April – All properties in the city of Hallettsville approximately 1,728 accounts. Pickup all new residential and commercial improvements and review all problematic areas
- October map pages: 9,10 19,20,30,31,32,33,43,44,45,46,56,57,58,59,60,72,73,74
✓ **Approximately 704 Accounts**
- November map pages: 7,8,17,18,28,29,41,42,54,55
✓ **Approximately 652 Accounts**
- December map pages: 5,6,15,16,26,27,39,40,52,53
✓ **Approximately 630 Accounts**
- January map pages: 66,67,68,80,81,82,95,96,97
✓ **Approximately 703 Accounts**
- February map pages: 111,112,113,127,128
✓ **Approximately 576 Accounts**
- March map pages: 129,130,144,145,146,147
✓ **Approximately 644 Accounts**
- April: complete all field inspections and rechecks. All Business Personal Property

By January 15, 2028 Mail the Following:

- ✓ 2028 Business Personal Property Renditions - Comptroller Form 50-144
- ✓ 2028 Homestead/Over 65 Exemption Applications
- ✓ 2028 I-d-1 (Open Space) Agricultural Us Applications
- ✓ Annual Charitable and Abatement Applications
- ✓ 2028 Hotel/Motel Income and Expense Questionnaires
- ✓ Miscellaneous Exemption Applications

All appraisal work to be completed by April 15, 2028

Process and mail 2028 Notice of Appraised Values by May 15 or as soon thereafter as practical

Appraisal Review Board Begin June 4, 2028

Appraisal Review Board Approves Records no later than July 20, 2028

Chief Appraiser certify 2028 Appraisal to taxing entities no later than July 25, 2028

After the 2028 Appraisal Rolls are certified in July appraisal activities start for the preparation of the 2029-2030 Reappraisal Plan.

As prepared by Chief Appraiser Pam Lathrop and presented to the Lavaca County Central Appraisal Districts Board of Directors on September 8, 2026

USPAP STANDARD 6-3:
CERTIFICATION

I certify that, to the best of my knowledge and belief:

- the statements of fact contained in this report are true and correct.
- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- I have no (or the specified) present or prospective interest in the property that is the subject of this report, and I have no (or the specified) personal interest with respect to the parties involved.
- I have performed no (or the specified) services, as an appraiser or in any other capacity regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- my engagement in this assignment was not contingent upon developing or reporting predetermined results.
- my compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- my analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
- I have (or have not) made a personal inspection of the properties that are the subject of this report. (If more than one person signs the report, this certification must clearly specify which individuals did and which individuals did not make a personal inspection of the appraised property.)
- no one provided significant mass appraisal assistance to the person signing this certification. (If there are exceptions, the name of each individual providing significant mass appraisal assistance must be stated.)

Appraiser: *Robert Hall*

Date: 9/2/26

Appraiser: *Linda Elliott*

Date: 9/2/26

Appraiser: *Rachel Beretyn*

Date: 9/2/26

Appraiser: *P. James*

Date: 9/2/26

Appraiser: *R. Scott Hobbs*

Date: 9-2-26

Appraiser: *Pam Luchey*

Date: 9-2-24



PRITCHARD & ABBOTT, INC.
VALUATION AND IT 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:

2027 and 2028**

Originally Printed: July 2026

***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. Accordingly, 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 Uniform Standards of Professional Appraisal Practice (USPAP®) is the generally recognized ethical and performance standards for the appraisal profession in the United States. USPAP® is updated on an as needed basis by the Appraisal Standards Board (ASB). Any updates follow the release of exposure drafts of proposed changes and a public vote. The most recent update to USPAP® went into effect on January 1, 2024.

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.

On April 23, 2026, the Appraisal Standards Board adopted Advisory Opinion 41, Use of Technology in an Appraisal or Appraisal Review Assignment. AO-41 offers guidance on appraisers' USPAP® responsibilities when using technological tools, including automated valuation models, regression and statistical software, and generative artificial intelligence, in appraisal and appraisal review assignments across real property, personal property, and intangible property. The Advisory Opinion is available now and will be incorporated into a future edition of the USPAP Guidance and Reference Manual.

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 (FHA), 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 in 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 notwithstanding 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 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) IN LIEU OF 1.04(2)(D). 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 IMPLIED 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 defensible. 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 prerequisites.

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 related personal properties. Personal property is often referred to as “business personal property” (or BPP), as tangible non-income producing personal property in Texas (personal property not held to produce income related to a business purpose) is generally exempt.

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 defensible. 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, often including personal inspection (in-person observation of the subject property performed as part of

the scope of work, not to be confused with an inspection performed by a home inspector, structural engineer, or the like). This data is maintained in either hard copy or computer files as part of the appraiser's work file (documentation necessary to support the appraiser's analyses, opinions, and conclusions). 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 related personal property and some, but not all, 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 related personal property. Exceptions exist for core operating property of rate-regulated utility property - see discussion of Income Approach below.**

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 routinely employ the income approach in the appraisal of personal property, other than for core operating business personal property of rate-regulated utility companies where "unitary methodology" is the widely accepted norm.

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.

