Jim Hogg County Appraisal District

P.O. Box 459
Hebbronville, Texas 78361-0459

Office of the
Chief Appraiser

361-527-4033

JIM HOGG COUNTY APPRAISAL DISTRICT

REAPPRAISAL PLAN

APPRAISAL YEARS

2015 - 2016

As Proposed By:
Jim Hogg County Appraisal District
Board of Directors

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Original

Table of Contents

EXECUTIVE SUMMARY

INTRODUCTION

The Jim Hogg Central Appraisal District has always maintained a written reappraisal plan. The 79th Texas legislature added the following provision to Section 6.05 of the Texas Property Tax Code in 2005. Senate Bill 1652 adds subsection (i) to require appraisal districts to develop a biennial written reappraisal plan and hold a public hearing to consider the plan. No later than September 15 of each even-numbered year, the appraisal district board must finally approve the reappraisal plan and distribute copies to the taxing units and the Comptroller within 60 days of board approval. The law was effective September 1, 2005, and affects appraisal districts and the Comptroller's Property Tax Assistance Division. This document serves as the biennial written reappraisal plan described above.

The Jim Hogg Central Appraisal District (JHCAD) is responsible for the appraisal of all classes of taxable property located within its jurisdictional boundaries. The boundaries include all property located in Jim Hogg County. JHCAD is responsible for the appraisal of approximately 4,760 real property parcels; 3,997 mineral accounts; and 688 business and other personal property accounts. The District serves 4 taxing units. Those taxing units consist of one independent school district, 1 county, and 2 special use districts, such as drainage and emergency services. JHCAD employs an outside appraisal firm to appraise minerals, oil and gas, utilities, and various other complex properties. Contract appraisers are also guided by the principles set forth in USPAP and a copy of this firm's valuation methodology is included in the district's appraisal manual.

In mass appraising property for the purpose of ad valorem taxation, JHCAD subscribes to the Standards established by the International Association of Assessing Officers. In addition, JHCAD is guided by the principles set forth in The Appraisal Foundation's "Uniform Standards of Professional Appraisal Practice" (USPAP). USPAP Standards and Statements are included in this Appraisal Plan. In appraising property for ad valorem tax purposes, the District employs generally

accepted appraisal methods and techniques. Our analysts conduct mass appraisal utilizing the three approaches to value: the cost, market, and income approaches.

TAX CODE REQUIREMENT

Passage of S. B. 1652 amended the Tax Code to require a written biennial appraisal 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 have 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

Texas Property Tax Code Sec. 25.18. Periodic Reappraisals.

(a) Each appraisal office shall implement a 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 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;

The Jim Hogg County Appraisal District (JHCAD) receives listings of all deeds filed with the Jim Hogg County Clerk's office. Deeds are read and abstracted by clerical staff in the deed department of JHCAD. Information is recorded in the computer assisted mass appraisal system (CAMA)

software including grantor, grantee, date of recording, volume and page. Property identification numbers are assigned to each parcel of property.

Business personal property is located by canvassing the county street by street, using data sources such as yellow pages, sales tax permit holder lists and other business listing publications to ensure that all property owners are located. All businesses are mailed a rendition about January 1 of each year. Owners are required by law to list all their business personal property. Failure to render results in an automatic 10% penalty and a possible 50% penalty if a false rendition is filed. Lists of commercial vehicles are also purchased annually and these vehicles are tied to appropriate business accounts. Renditions are also required of utility companies, railroads and pipelines.

Oil and gas wells are discovered using Texas Railroad Commission records. Production records are processed by a contracted appraisal firms. Ownership is determined by records known as division orders.

JHCAD utilizes a highly developed geographic information system (GIS) that show ownership lines for all real estate. Aerial photography is interfaced with the GIS for an additional layer of vital information.

(2) identifying and updating relevant characteristics of each property in the appraisal records;

Jim Hogg CAD operates on 3 year reappraisal cycle. In 2015, all real property in the City of Hebbronville south of Galbrath Street, including South Fork Estate south of Hwy 16 will be reappraised. In 2016, all real property in the City of Hebbronville north of Galbrath Street, including Las Lomitas Subdivision north of Hwy 16 will be reappraised. The remainder of the county will be reappraised in 2017. Business personal property is appraised each year. See Exhibit A of this plan for the proposed 2015 and 2016 work schedules. A category breakdown of properties to be appraised within the Jim Hogg school district is also included.

Appraisers drive the county and gather data about each home, commercial business or vacant tract. The appraisers walk from property to property measuring the structures and noting the condition of the property and noting any changes to the property since the last physical inspection. Pictures are taken to capture the property's current quality and condition. The appraiser notes the date of the physical inspection on the field card and that information along with any property changes is entered in the CAMA system. The pictures are stored in the CAMA system and used to assist the appraiser in making decisions in the office. Other data stored in the CAMA system includes an exterior sketch of the improvement which allows for the calculation of square footage for the building and its components such as, garages, porches, patios, and other structures not

attached to the main improvement. Other property characteristics maintained in the CAMA systems are components found within the building such as bathrooms, fireplaces, air conditioning, roof type, wall heights and exterior finish. New property is discovered using septic tank permits, utility hook up permits and driving the county.

Rural acreage is inspected to verify existing agricultural and wildlife management use. New applications for agricultural and wildlife management use are inspected annually.

Business personal property is physically inspected annually. The quality and density of inventories are determined as of January 1 and the age and condition of furniture, fixtures, machinery and other equipment is noted. If the appraiser's observation differs from that of the rendition filed by the business owner, additional information is requested from the business owner and sometimes a value that differs from the rendered value may be assigned.

JHCAD contracts with an appraisal firm that specializes in the appraisal of oil and gas properties, utilities, railroads and pipelines. Specialized software is used to determine well production, decline and economically recoverable reserves. The reserves are appraised discounting for the time it will take to recover them from the earth. Utility companies, railroad and pipelines are appraised using the income approach, where the net income is capitalized and allocating the resulting value to the various taxing entities in the county.

See Exhibit A for proposed work schedules for each appraisal year and the estimated number of parcels to be reappraised by property category. Also included is a calendar of key tax year events.

(3) defining market areas in the district;

Market sales are used define market areas and improvement and land schedules are developed accordingly. Because of the scarcity and reliability of market sales in Jim Hogg County, JHCAD has designated Jim Hogg ISD as its primary market area. Ratio studies are performed on property types within Jim Hogg ISD to test appraisal performance and perform appraisal maintenance on cost schedules and tables.

Market areas are also developed for land. Adjustments are determined based on location, size, topography and other characteristics recognized by market sales.

(4) identifying property characteristics that affect property value in each market area, including:

(A) the location and market area of property;

(B) physical attributes of property, such as size, age, and condition;

(C) legal and economic attributes; and

(D) easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;

Each parcel of property has detailed information recorded in the CAMA system. Land attributes consist of legal description, dimensions, zoning, size, utilities, road access and any other special, unique or legal characteristics are noted and used for developing schedules and defining market areas. Each improvement record consists of a current sketch with measurements, a photograph of the improvement and individual property characteristics such as class, construction quality, year of construction, roof covering and style, exterior finish, number of bathrooms, fireplaces, heating and air conditioning, pools, out buildings and other attributes specific to the improvement.

(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;

JHCAD's computer assisted mass appraisal (CAMA) system utilizes 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. The model uses the cost approach to value to estimate the original cost of each building component. Market sales are studied for improvement contributions in each market area and adjustments to cost schedules are applied to each improvement via depreciation and market adjustment factors.

Similar models are used when appraising apartments, commercial and industrial properties, but market sales and income data are key components of the valuation process for these properties.

(6) applying the conclusions reflected in the model to the characteristics of the properties being appraised; and

JHCAD uses conclusions reflected in appraisal model results to construct and maintain property classification guides identifying minimum property characteristics typical for each property class. By utilizing sales data for each neighborhood and market area, conclusions concerning age, quality,

condition, construction components, depreciation and other variables are tested against the model's results.

(7) reviewing the appraisal results to determine value.

JHCAD tests the results of its appraisal model values (appraisals) against market data (sales) to determine the accuracy and level of appraisal, as well as to monitor the integrity of the appraisal model (CAMA). Ratio study results are used to maintain and update appraisal schedules to achieve market value appraisals. Sales ratios are performed for each property category with Jim Hogg ISD to determine if values assigned by the model fall within a 95% - 105% confidence interval level.

REVALUATION DECISION (REAPPRAISAL CYCLE)

The Jim Hogg County Appraisal District by policy adopted by the Chief Appraiser and Board of Directors reappraises all property in the district on a 3 year reappraisal cycle as required by Section 25.18, Property Tax Code.

The reappraisal year is a complete appraisal of all properties in the geographic area; therefore both 2015 and 2016 are reappraisal years.

REAPPRAISAL YEAR ACTIVITIES

1. Performance Analysis - The equalized values from previous appraisal year are analyzed with ratio studies to determine appraisal accuracy and appraisal uniformity overall and by market area within property categories. Ratio studies are conducted in compliance with the current *Standard on Ratio Studies* of the International Association of Assessing Officers.

2. Analysis of Available Resources - Staffing and budget requirements for appraisal year 2015 are detailed in the 2015 appraisal district budget, as adopted by the Board of Directors. Existing appraisal practices, which are continued from year to year, will be identified and methods utilized to keep these practices current will be specified by district management. Information Systems (IS) support is detailed with year specific functions identified and system upgrades scheduled as necessary. Existing maps and data requirements are specified and updates scheduled as required.

3. Planning and Organization – A calendar of key events with critical completion dates is prepared for the district. This calendar identifies the key events for the preparation of the appraisal roll. A calendar is prepared

and included for appraisal years 2015 and 2016. Production standards for field activities are calculated and incorporated in the planning and scheduling process in order to reach goals set by both district management and the Tax Code.

4. Mass Appraisal System – Computer Assisted Mass Appraisal (CAMA) system revisions required are specified and scheduled with Information Systems and the district's software vendor. All computer forms and IS procedures are reviewed and revised as required.

5. Data Collection Requirements – Field and office procedures are reviewed and revised as required for data collection. Activities scheduled for each appraisal year include new construction, demolition, remodeling, re-inspection of problematic market areas, re-inspection of the universe of properties on a specific cycle, and field or office verification of sales data and property characteristics.

6. Pilot study by appraisal year – New and/or revised mass appraisal models/schedules are tested each appraisal year. Ratio studies, by market area, are conducted using proposed values each appraisal year. Proposed values in each category are tested for accuracy and reliability using standardized testing procedures and ratio study statistics.

7. Valuation by appraisal year - Using market analysis of comparable sales and locally tested cost data, valuation models will be specified and calibrated in compliance with the supplemental standards from the International Association of Assessing Officers and the *Uniform Standards of Professional Appraisal Practice.* The calculated values will be tested for accuracy and uniformity using ratio studies

8. The Mass Appraisal Report – Each appraisal year the required Mass Appraisal Report will 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 STANDARD RULE 6 – 8 of the *Uniform Standards of Professional Practice.* The signed certification of the Chief Appraiser is compliant with STANDARD RULE 6 – 9 of USPAP.

9. Value Defense – Evidence to be used by the appraisal district to meet its burden of proof for market value and appraisal equity in both informal and formal hearings if specified and tested as applicable.

PERFORMANCE ANALYSIS

In each appraisal year, the previous year appraisal year's equalized values are analyzed with ratio studies to determine appraisal accuracy and appraisal

uniformity overall. In its annual procedures, the district tests values by market area within state property reporting categories. Ratio studies are conducted in compliance with the current Standard on Ratio Studies from the International Studies from the International Association of Assessing Officers. Mean, median, and weighted mean ratios are calculated as measures of central tendency for properties in each reporting category to measure the level of appraisal (appraisal accuracy). The median ratio is the primary measure of central tendency analyzed in each market area to indicate the level and accuracy of appraisal performance. The district also calculated the coefficient of dispersion and price related differential in each market area to indicate the uniformity or equity of existing appraisals.

ANALYSIS OF AVAILABLE RESOURCES

Staffing and budget requirements for tax year 2015 are detailed in the 2015 appraisal district budget, as adopted by the Board of Directors. This reappraisal plan is adjusted to reflect the available staffing for appraisal year 2015 and the anticipated staffing in appraisal year 2016. Staffing will impact the cycle of real property re-inspection and personal property on-site review that can be accomplished in this time period.

APPRAISAL RESOURCES

The JHCAD staff consists of the chief appraiser, appraiser/mapper (vacant), office manager and clerk. JHCAD currently employs 1 registered professional appraiser. JHCAD contracts with an appraisal firm for the appraisal of oil and gas properties, utilities, railroads, pipelines and other industrial real and personal property. All appraisers performing work for Jim Hogg CAD active registrants with the Texas Department of Licensing and Regulations (TDLR).

JHCAD appraisers are actively involved in the discovery, listing, and appraisal of all types of property. Properties are grouped by location, type, use, quality, and a variety of other quantitative data elements. A common set of data characteristics on each specific type of property is observed, listed, and collected during field inspection. Each appraiser is trained in the use of the Jim Hogg Central Appraisal District's appraisal manual, appraisal techniques, and methodology in the use of this information.

COMPUTER RESOURCES

Data is collected in the field and keypunch entered to the computer. The appraisal records are maintained on data base servers. The primary storage media: power edge data base servers. The District also employs the CD-ROM storage media on some projects. The JHCAD appraisal software is a CAMA system (computer assisted mass appraisal). This system contains cost and depreciation schedules that utilize common data elements to assist in creating base values.

JHCAD contracts with Pritchard & Abbott, Inc. for appraisal administration software. JHCAD employs the use of a server based computer network with personal computers to form the CAD computer system. This information includes square foot of living area, land size, age, class, construction type, and a variety of other useful information.

MAPPING RESOURCES

JHCAD utilizes a Geographic Information System (GIS) to maintain parcel data and maps for all of Jim Hogg County. All GIS files are stored on an server and ARC/GIS version 9.2 is the current operating software. The Digital mapping has been 100% complete since 2011. The District purchases Aerial Imagery every two years. Appraisers and other staff members can perform virtual property inspections or reviews. The software's capability allows us to locate, identify and better understand taxable properties in our jurisdictions.

INFORMATION SOURCES

JHCAD appraisal staff and administration collect data on local and regional economic forces that may affect value. Locational forces are carefully observed as we find location to be the most significant factor in determining the market value of property in our geographic area. General trends in employment, interest rates, availability of vacant land, and new construction trends are closely monitored. JHCAD obtains information from local realtors, mail surveys, brokers, appraisers, and a variety of other sources, such as Marshall & Swift.

THE DATABASE

The JHCAD database was constructed from property data obtained originally from Jim Hogg County in 1986. Data received was on-site field-inspected and revised to create the foundation for our current database. Since the inception of the JHCAD, this data-base has been continually updated to recognize the current status of the property records. A variety of programs designed to discover changes that may occur to data elements are maintained. Property inspections or drive-outs occur as the result of information gathered during various forms of analysis. Building permits, field review, renditions, reports of value, local news publications, tax offices, and the public are but a few of the sources of information considered by staff analysts during the discovery phase of the appraisal process. Information from building permits is compiled from local taxing units, sorted, and keypunched into our computer-assisted building permit system.

Data collection in the field requires preparation of maps, computer generated appraisal cards, and coordination of staff. Properties are grouped by type, location, and neighborhood prior to the start of the fieldwork. State Property Tax Assistance Division (PTAD) property types include Residential, Multi-Family, Commercial, Industrial, Farm and Ranch, Vacant Land and Acreage, Oil, Gas, and Mineral, Utilities, Business Personal Property, and other Special Inventory types.

Existing appraisal practices, which are continued from year to year, are identified and district staff is appropriately trained in order to keep their skills current. In each reappraisal year, real property appraisal cost new tables and depreciation tables are updated and based upon cost data obtained from the Marshall Valuation Service (also known as *Marshall and Swift*). The preliminary values produced by these updates are tested against verified sales data and adjustments are made as necessary to fit the local market area. Income studies by commercial real property use type are conducted and models are updated from current market data. This includes a review of economic rents and capitalization rates from the local market, data obtained through the ARB hearing process, and information from published sources. Personal property density schedules are analyzed, tested, and updated based on cost data obtained by rendition and ARB hearing documentation.

Information Systems (IS) support is detailed with year specific functions identified and system upgrades are scheduled with the district's software vendor. Computer generated forms are reviewed for revisions based on year and reappraisal status. Legislative changes are scheduled for completion and also tested through coordination between the districts IS department in order to make these tools available to the appraisal staff.

The Jim Hogg County Appraisal District, as well as all appraisal districts in Texas, is specifically hindered when valuing property due to the lack of mandatory sales disclosure. The lack of mandatory sales disclosure restricts the information that is available to CAD's when using the Sales Comparison Approach, especially on the high end of the value spectrum of residential property and with regard to most non-residential real property. The lack of mandatory sales price disclosure also impacts values developed via the income approach by restricting the type of data necessary to calculate an overall capitalization rate from sold comparable properties. Should mandatory sales price disclosure become law; the district will have an additional tool, with which to value property, which will foster further accuracy and equity in appraisals.

PLANNING AND ORGANIZATION

A calendar of key events with critical completion dates is prepared for the district. This calendar identifies the key events for developing the appraisal roll. A separate calendar is prepared for appraisal years 2015 and 2016. Production standards for field activities are calculated and incorporated in the planning and scheduling process. This plan encompasses the normal processes carried out for each year by

the district; therefore catastrophic events or significant legislative action may have a detrimental effect to the district's operation and require changes to this plan.

CALENDAR OF KEY EVENTS

2015 APPRAISAL YEAR		
Event	**Beginning Date**	**Ending Date**
Process Exemptions and Special Use Applications	9/1/2014	To Certification
Create 2015 Year layer in CAMA System	9/2/2014	2/9/2015
Field Operations/Discovery Process – Appraisal Departments	9/5/2014	2/9/2015
Adopt Biennial Reappraisal Plan Covering 2015 and 2016	9/15/2014	9/15/2014
Adopt 2015 Appraisal District Budget	9/15/2014	9/15/2014
TDLR Education Courses RPA tract as necessary	10/2/2014	3/31/2015
Personal Property Renditions Mailed	12/15/2014	12/15/2014
Statutory Date of Appraisal (Unless Sept 1 granted for Inventory)	1/1/2015	1/1/2015
Preliminary Property Value Study Released	1/31/2015	1/31/2015
Full Valuation Effort-Model Specification/Calibration Included	2/12/2015	3/30/2015
PVS Protest Deadline if necessary	3/11/2015	3/11/2015
Valuation Review/Error Reports Cleanup	3/30/2015	4/13/2015
Send First Batch of 25.19 Appraisal Notices	4/24/2015	4/24/2015
Create Future Year Layer for GIS 2010 Plats and Deeds	4/27/2015	4/27/2016
Certified Estimates of Value Due to School Districts	4/27/2015	4/27/2015
Mail Mineral Notices	5/15/2015	5/15/2015

Turn Over Records to ARB	5/19/2015	5/19/2015
Send Subsequent Batches of Appraisal Notices as Necessary	5/21/2015	7/13/2015
Primary Protest Deadline	5/31/2015	5/31/2015
Formal Hearings Scheduled – Depending on Volume	6/9/2015	9/28/2015
Mineral Import from Vendor	7/16/2015	7/16/2015
Certification of the Appraisal Roll	7/25/2015	7/25/2015

CALENDAR OF KEY EVENTS

2016 APPRAISAL YEAR		
Event	**Beginning Date**	**Ending Date**
Process Exemptions and Special Use Applications	9/1/2015	To Certification
Create 2016 Year layer in CAMA System	9/2/2015	9/4/2015
Field Operations/Discovery Process – Appraisal Departments	9/5/2015	2/9/2016
Adopt Biennial Reappraisal Plan Covering 2015 and 2016	9/15/2015	9/15/2015
Adopt 2016 Appraisal District Budget	9/15/2015	9/15/2015
TDLR Education Courses RPA tract as necessary	10/2/2015	3/31/2016
Personal Property Renditions Mailed	12/15/2015	12/15/2015
Statutory Date of Appraisal (Unless Sept 1 granted for Inventory)	1/1/2016	1/1/2016
Preliminary Property Value Study Released	1/31/2016	1/31/2016
Full Valuation Effort-Model Specification/Calibration Included	2/12/2016	3/30/2016
PVS Protest Deadline if necessary	3/11/2016	3/11/2016
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Primary Protest Deadline	5/31/2016	5/31/2016
Formal Hearings Scheduled – Depending on Volume	6/9/2016	9/28/2016
Mineral Import from Vendor	7/16/2016	7/16/2016
Certification of the Appraisal Roll	7/25/2016	7/25/2016

MASS APPRAISAL SYSTEM

Computer Assisted Mass Appraisal (CAMA) system revisions are specified by the district management team and scheduled with Information systems and the district's software vendor. The district currently, and for the foreseeable future contracts with Pritchard & Abbott, Inc. services. All automated forms and IS procedures are reviewed routinely and revised as required. The following details these procedures as it relates to the 2015 and 2016 appraisal years

REAL PROPERTY VALUATION

Revisions to cost models, income models, and market models are specified, updated, and tested each appraisal year. Market area boundaries are reviewed and adjusted as indicated by growth patterns and market preferences. Deeds are processed on an ongoing basis to transfer ownership, establish the basis for land size, and assign account numbers to newly platted lots as an addition to the appraisal roll. The district will also update and process exemption and special use appraisal applications as necessary and applicable.

Cost schedules are tested with market data (sales) to insure that the appraisal district is in compliance with Texas Property Tax Code, Section 23.011. Replacement cost new tables as well as depreciation tables are based on cost data from the Marshall Valuation Service (also know as Marshall and Swift). The resulting schedules are tested for accuracy and uniformity using ratio study tools.

Land tables are updated using current market data (sales) and then tested with a ratio study. Value modifiers are developed for property categories by market area and tested on a pilot basis before deployment with a ratio study / calibration tools.

Income, expense, and occupancy data is updated in the income models for each property use category and market area. Cap rate studies are completed using current sales data when available and published sources are also utilized. The resulting models are tested using ratio study tools.

PERSONAL PROPERTY VALUATION

All income-producing business personal property located within District boundaries is subject to tax. Business use vehicles are also listed in the appraisal records and subject to ad valorem taxation. Personal property schedules are used to value business furniture, fixtures, equipment, and inventory. Additionally, personal property values are obtained by some other sources.

Business owners are required by Texas Law to render their business personal property each year. The appraiser considers rendered values during the appropriate phase of valuation analysis. Rendered values are often used as the basis for the CAD value if the value rendered is reasonable for the type of business and within acceptable ranges when compared to the JHCAD/PTAD or Marshall & Swift personal property schedules. Should the property owner choose not to render the property, or if the rendered amount does not fit acceptable ranges, then the JHCAD/PTD schedule or the Marshall & Swift schedule is used to value the property.

Depreciation of the property is determined by the age of the property and its expected life. Valuation and depreciation schedules are included in the JHCAD appraisal manual. Business vehicles are valued based on NADA Used Car Guide trade-in value for the particular make, model, and age of the vehicle. The Appraisal District uses a report obtained from Texas Motor Vehicle Listings to determine ownership, make, model, and vehicle characteristics to determine NADA trade-in value. This report along with the aforementioned renditions and physical observations are used to discover and list vehicles that are taxable. When adverse factors, such as high mileage, are known, appropriate adjustments are made.

The U. S. Coast Guard and the Texas Parks and Wildlife Department provide lists to the CAD regarding taxable watercraft. The ownership, make, name, and type of watercraft are provided on these lists. Fair market value estimate of taxable watercraft is based on the same techniques used to value other business personal property.

NOTICING PROCESS

Section 25.19 appraisal notice forms are reviewed, edited for updates, and the appraisal district management team approves changes. These revisions include updates from the Comptroller's Property Tax Division as well as specific legislative changes as required. Updates also include the latest copy of the Comptroller's *Taxpayers Rights and Remedies.*

HEARING PROCESS

Protest hearing scheduling for informal and formal Appraisal Review Board hearings is reviewed and updated as required by protest load in order to certify by July 25 according to law. Standards of documentation are reviewed and amended as required. The appraisal district hearing documentation is reviewed and updated to reflect the current valuation process and legal requirements.

DATA COLLECTION REQUIREMENTS

IDENTIFICATION AND UPDATE OF RELEVANT CHARACTERISTICS AFFECTING VALUE

Field and office procedures are reviewed and revised as required for the data collection process. Activities scheduled for each appraisal year include the review of new construction, demolition, remodeling, re-inspection of problematic market areas, and re-inspection of the universe of properties on a specific cycle (3 years per District's policy).

NEIGHBORHOOD ANALYSIS
Defining Market Areas

Initially, property is considered based on its location within particular boundaries. The most common boundary used to define location is the school district boundary. In all types of property, valuation analysis and neighborhood analysis is conducted on school districts. The IAAO defines a neighborhood as the environment of a subject property that has a direct and immediate effect on value. For our purposes, the school district boundary is the environment of the subject property, therefor, Jim Hogg ISD is considered the CAD's primary market area.

According to *The Appraisal of Real Estate 12th Edition,* a market area is "the defined geographic area in which the subject property competes for the attention of market participants." The district staff group's properties by market area, which are considered to be "Neighborhoods" for the purposes of valuation and analysis. The district staff will assign neighborhood codes to comparable properties conforming to the definition of a market area; giving specific consideration to market characteristics and the specific life cycle of the neighborhood in compliance with *USPAP* Standards. In 2015-2016, Jim Hogg ISD is the only recognized market area for appraisal analysis and appraisal schedule maintenance.

NEW CONSTRUCTION /DEMOLITION

New construction field and office review procedures are identified and revised as required in order to complete the data collection phase. Field production standards are established and procedures for monitoring tested to meet field review deadlines. Sources of new utility meters and septic tank permit data is confirmed and system input procedures are identified. The process of verifying the demolition or new construction of improvements is done through field inspection. Building plans and or blueprints are obtained, when possible, and dimensions are entered into the system by data collections staff. The appraisal staff checks the accuracy of the measurements in the field during data review. This critical annual activity is projected and entered on the key events calendar for each appraisal year.

REMODELING

Market areas with extensive improvement remodeling are identified, verified, and field activities scheduled to update property characteristic data. Updates to valuation procedures are tested with ratio studies before being finalized in valuation modeling. This field activity is also posted to the key events calendar and is monitored carefully to finish by the established deadlines.

RE-INSPECTION OF PROBLEMATIC MARKET AREAS

Real property market areas, by property classification, are tested for: low or high protest volumes; low or high sales ratios; or high coefficients of dispersion. Market areas that fail any or all of these tests are determined to be potentially problematic. Field reviews are scheduled to verify and/or correct property characteristic data and review neighborhood delineation. Additional sales data is researched and verified as applicable. In the absence of adequate market data, clusters of comparable neighborhoods are identified for use in valuation and defense.

RE-INSPECTION OF THE UNIVERSE OF PROPERTIES

The International Association of Assessing Officers, *Standard on Mass Appraisal of Real Property* specifies that the universe of properties should be re-inspected on a cycle of 4-6 years. The re-inspection includes the use of photography and imagery to augment an individual onsite visit. The annual re-inspection requirements for appraisal years 2015 and 2016 are identified by property type or property classification and scheduled on the key events calendar as part of the field operation.

FIELD OR OFFICE VERIFICATION OF SALES DATA AND PROPERTY CHARACTERISTICS

Sales information must be verified and property characteristic data contemporaneous with the date of sale is captured in the sale record. The sales ratio tools require that the property that sold must equal the property appraised in order

that statistical analysis results will be valid. In the event that these are not equal, the sale is usually excluded from the observation pool in the ratio study.

OFFICE AUDIT

The sales ratio analysis and associated individual property value audit or review is conducted in the office on a year around basis. As stated above, properties that do not fit a homogenous statistical profile are set aside for review by a senior appraiser. In all classes of property, a number of different reports are generated on our computer to provide information on statistical measures, i. e. percent of increase, increase from prior year, percent of change to land value, percent of change to improvement value, etc. This type of information along with the other forms of analysis described in this report often helps locate areas or property types in need of reappraisal.

MARKET ADJUSTMENT

The Ratio Study Procedures provide accurate information regarding the level of appraisal of the various classes and categories of properties. For the purpose of valuing residential property, the CAD approach to value is described by the IAAO as a hybrid cost-sales comparison approach. This commonly accepted mass appraisal technique considers local influences not always accounted for in the cost approach. The following equation explains this theory: MV = MA (RCN - D) + LV.

Where MV equates to market value, MA equals market adjustment, RCN-D is the replacement cost new of the dwelling, less depreciation, and LV is the estimate of land value based on highest and best use. Market value equals market adjustment times RCNLD + land.

In areas where the sales ratio indicates that the property located within a given neighborhood is not being appraised at the legally permissible level of appraisal, the market adjustment process described in the previous paragraph is conducted. Base cost estimates are compared to sales and a ratio is derived. The ratio is divided into a target ratio, and a neighborhood adjustment factor is determined. Each homogenous parcel in that given neighborhood is programmatically adjusted according to the factor derived from the process. This adjustment factor is keypunched to a computer program and each parcel is adjusted programmatically. Ongoing neighborhood analysis and delineation ensures the accuracy of this process.

PILOT STUDY

New and/or revised mass appraisal models are tested on randomly selected market areas. These modeling tests (sales ratio studies) are conducted each appraisal year. Actual test results are compared with anticipated results and those models not performing satisfactorily are refined and retested. The procedures used for model specification and model calibration are in compliance with *Uniform Standards of Professional Appraisal Practice,* STANDARD RULE 6.

VALUATION BY APPRAISAL YEAR

Using market analysis of comparable sales and locally tested cost data, specific income and expense data, and information gathered from renditions, valuation models are specified and calibrated in compliance with the supplemental standards from the International Association of Assessing Officers and the *Uniform Standards of Professional Appraisal Practice.* The calculated values are tested for accuracy and uniformity using ratio studies by market area and property category. Performance standards utilized are those as established by the *IAAO Standard on Ratio Studies.* Property values in all market areas are reviewed each reappraisal year and updated as indicated by existing market data.

The following details the planned valuation methods by department and or property type:

RESIDENTIAL REAL PROPERTY

Cost Approach

The district uses a hybrid cost-market approach when valuing residential properties. The comparative unit, also known as the square-foot method, will be used to develop an indication of the basic cost of a structure. Adjustments will then be made for amenities of individual properties based upon characteristics that affect value in the market. The district's cost tables are, and will continue to be, based upon information obtained from the Marshall Valuation Service, also known as *Marshall and Swift.* These cost figures are adjusted to the local market to reflect current local labor and material costs. Neighborhood Market 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 in each specific neighborhood. The following equation is the hybrid model used by the district:

$$MV = [RCN\ LD]\ MA + LV$$

In the formula above, the replacement cost new less depreciation (RCNLD) of the improvements are multiplied by the appropriate neighborhood market adjustment factor (MA) to arrive at a current improvement value. The current improvement value is added to the land value (LV) to arrive at an estimate of market value (MV).

Market adjustments will be applied uniformly within neighborhoods to account for market preferences affecting value in each location throughout the district.

Residential land values will be estimated using the base lot method, square foot method, or acreage method of appraisal. The individual method utilized in each neighborhood is designed to mirror the market in that area. As such, the chosen method for each individual neighborhood will be selected based upon how properties are selling or which method best accounts for perceived differences among the universe of properties. There are four accepted methods or land valuation; the comparable sales approach, allocation by abstraction, allocation by ratio, and the capitalization of ground rent. The district will utilize elements of all of these land valuation methods depending upon market area and availability of market data. In areas where insufficient vacant land sales exist, the district will utilize the allocation methods to establish land values in a neighborhood. The appraisers will develop a base lot or primary land rate and assign land tables to each neighborhood. Land adjustments will be applied to individual properties, where necessary, to adjust for such influences as view, shape, size, and topography, and any other characteristic that affects value in a neighborhood.

If neighborhood statistics indicate that values need to be updated, the appraiser will employ cost calibration to bring the initial values closer to what the market indicates values should be in that area. This process involves comparing the initial depreciated cost figures for properties that sold to the sale contributory improvement values of those properties (Sale Price – Land Value). An adjustment factor is calculated for each property in the data pool and statistics are calculated for the indicated adjustments. The factor that best represents the acceptable range of market value is selected for each neighborhood. The sales used to determine the market adjustment factor will reflect the market influences and conditions for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor calculated for each neighborhood will be applied uniformly to all properties within that neighborhood and a second set of ratio study statistics will be generated to compare the level and uniformity of values in the neighborhood as adjusted.

Sales Comparison Approach

As indicated in *Property Appraisal and Assessment Administration* (IAAO, 1990), in the absence of a sale of the subject property, sales prices of comparable properties are usually considered the best evidence of market value. The sales comparison approach mimics 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.

At present, the district does not develop estimates of value for single-family properties using the traditional sales comparison approach in mass for valuation purposes. The district's software package allows for the creation of sales

comparison grids that adjust for characteristic differences among properties, but the district has yet to value entire neighborhoods through this application of the market approach. The sales grids that are generated are utilized most frequently during the appeals process, but may be utilized for valuation more widely in the future as time and available data permit.

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 economic life. In other words, value is the estimated present value of future benefits. 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.

$$\text{Value} = \text{Income}/\text{Rate}$$

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 as these properties are purchased by consumptive users and therefore, do not routinely generate an income stream.

INVENTORY RESIDENTIAL PROPERTY

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

In general, the district uses its 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 appraisal date to estimate the value of improved inventory. The market values of improved inventory will be reviewed annually and inventory adjustments will be eliminated when ownership transfers from the developer or builder.

Vacant residential inventory will be valued using a discounted cash flow formula that considers value relative to the income or cash flow, an appropriate discount rate, and the amount to time that the property is likely to be held or lots sold out of inventory. Since there is no legal requirement that developers or builders render their inventory, a preliminary estimate of inventory value may be difficult to estimate. In these cases, inventory discounts will be applied as a result of an appeal.

LAND ANALYSIS

Land analysis is conducted generally by our experienced market analysts. Highest and best use determinations generally occur at this time. Base lot square footage rates, acreage rates, primary and residual price rates, and hard code unit prices are established during this phase of the appraisal operation. A computerized land table containing the necessary information by ISD and neighborhood, and any other pre-specified area, assist the analyst in consistently valuing land based on its location, size, configuration, and topography elements. When possible, the sales comparison approach is used to assist in the development of unit prices. The land appraisal techniques of allocation by abstraction and allocation by ratio are used to best reflect the value of the land as vacant in areas where build-out has occurred or in areas where vacant land sales are not available.

APPRAISAL OF RURAL LAND

This section provides general guidelines to assist appraisers in the market valuation of rural lands. Appraised values based on market valuation must be established for all taxable land in each taxing jurisdiction, regardless of whether the land qualified, or would qualify, for productivity valuation under either Article VIII, Section I-d of Section I-d-1 of the Texas Constitution. Market values so determined must be submitted to the Appraisal Review Board for determination of protests for all taxable land in each jurisdiction, including land that qualifies for productivity valuation. In addition, appraised values based on market valuation must be retained for land receiving productivity valuation for rollback purposes.

The rural land market can best be understood by dividing it into three distinct types of markets—the production, investment, and consumptive land markets--each based on the principal factor which influences value. Discussion of these market influences and common examples of each are presented below.

The Production Land Market

The principle factor influencing value of rural land in the production land market is the income potential associated with agricultural production. In the production land market, land values will reflect the productive capacity of soils, the availability of irrigation water, and the topographic features which influence the ability of a producer to use the land for agricultural purposes. Most areas of the Texas Rio Grande are still dominated by production-market influences.

The Investment Land Market

The principal factor influencing the market value of rural land in the investment land market is the appreciation potential of land investments. The investment land market is not composed strictly of speculators who purchase land with the intent to

make a quick profit by resale, but also includes individuals who purchase land for conversion into subdivisions or for other types of development. In addition, the investment land market includes individuals who purchase land as a means of preserving their capital for a later use, or as a hedge against inflation. Although investment-market influences exist in all areas of the state, they are the principal market influences in suburban areas.

The Consumptive Land Market

The principal factor influencing the market value of rural land in the consumptive land market is the satisfaction that land ownership provides. The consumptive land market is often characterized by the purchase of small tracts of land to be used for recreational purposes. For instance, an individual who lives in a city or town may purchase a 10-acre tract of land in a rural area to visit on weekends with his family. Generally, the value of land located within 200 miles of major population centers is most heavily affected by consumption-market influences.

The most distinctive features of the rural land market are that all three types of market influences, in combination with supply, establish market values. For this reason, it is important that the appraiser be knowledgeable of the key factors that influence value and of the relative influence each of these factors has upon value when establishing procedures for the valuation of rural land in a jurisdiction.

ANALYSIS OF LOCAL MARKET

From a practical standpoint, using a fee-appraisal approach to appraise each individual tract of land in a jurisdiction is not possible. Fee appraisers make detailed appraisals of individual parcels by obtaining comparable sales of other land in the jurisdiction and adjusting each comparable sale to the subject property to estimate the value of the subject property. In this way, fee appraisers allow market transactions that have occurred regarding other properties to define the market value of the subject property. Common types of adjustments made by fee appraisers to comparables in estimating market values of subject properties include adjustments for date of sale, for size of tract, for productivity factors, for improvement value, and for special amenities.

Central appraisal district appraisers must also use market transactions to define factors that influence rural land values in their jurisdictions. However, unlike fee appraisers, these appraisers can not compare each tract individually to each market transaction identified to make adjustments because of the volume of properties to be appraised. Appraisal office appraisers must, therefore, incorporate the factors indicated by market transactions into general standards or schedules of value. Such schedules are normally comprised of per acre prices that will be multiplied by the number of acres in an individual tract to develop an estimate of the value of the tract. Schedules of this kind should be divided into as many categories or classes as are necessary to reasonably reflect market values when applied to individual tracts of land found in the jurisdiction.

COMMERCIAL AND MULTIFAMILY REAL PROPERTY

Cost Approach

The cost approach to value will be applied using the comparative unit, or square foot method of cost estimating. The following is the basic model that the district utilizes when employing the cost approach:

$$MV = RCNLD + LV$$

This methodology involves the use of national sources of cost data as well as actual cost information gathered from the local market whenever possible. Cost models utilized by the district are based on data obtained by the Marshall Valuation Service also know as *Marshall and Swift*. These costs include comparative base rates, per unit adjustments, and lump sum adjustments as appropriate and necessary to account for the specific factors affecting value. Time and location modifiers will be applied as necessary to adjust cost data to reflect conditions in a specific market as well as changes in costs over a period of time. A cost estimate will be generated by the appraisal staff based upon the cost schedules as they are applied to the specific characteristics of the subject property of the appraisal.

Depreciation schedules have been implemented for economic lives and condition that is typical of each major class of commercial property-by-property use. The schedules utilized by the district are developed using recognized sources and mirror *Marshall and Swift*. These schedules will be tested annually to ensure they will be reflective of current market conditions in Jim Hogg County. The actual and effective ages of improvements are judged by the appraiser and noted in the improvement records contained within each property record. Effective age estimates will be based on the utility of the improvements relative to the improvement's total economic life, condition, and its competitive position in the marketplace. These adjustments are generally determined during field operations.

Certain adjustment factors such as external and or functional obsolescence will be applied to properties as applicable based upon market data. These adjustments will typically be applied to a specific property type or location and will be developed through ratio studies or other market analyses. Accuracy in the development of the cost schedules, condition ratings, and depreciation schedules usually minimize the necessity of this type of an adjustment factor. The sum total of depreciation, also expressed as the loss in value from all causes, is subtracted from the replacement cost new of the structure to arrive at a replacement cost new less depreciation (RCNLD).

The cost approach requires the district to value the land utilizing one of the four accepted methods of land valuation: the sales comparison approach, allocation by

abstraction, allocation by ratio, or the capitalization of ground rent. Once the land is valued by the method deemed most appropriate in terms of the data available, the resulting land value is added to the RCNLD of the improvements to yield an estimate of market value by the cost approach. Any estimate of value completed by the cost approach will be made in accordance with Section 23.011 of the Texas Property Tax Code.

Sales Comparison Approach

Pertinent data from actual sales of properties will be obtained throughout the year and the appraisal staff will analyze the relevant information. This data will be utilized in all aspects of the appraisal process.

Sales of similarly improved properties will provide a basis for the test of depreciation schedules used 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 appraiser a means of judging the present level and uniformity of the appraised values. The ratio studies used are in compliance with the current IAAO *Standard on Ratio Studies.*

Based on the market data gathered and analyzed by the appraisal staff, the cost and income models will be calibrated annually. The calibration results will be added to the schedules and models in the CAMA system to apply to all commercial properties in the district as appropriate. Any estimate of value completed by the sales comparison approach will be made in accordance with Section 23.013 of the Texas Property Tax Code.

Income Approach

The income approach to value will be applied to those real properties that are typically viewed by market participants as income producing. Income producing properties are those that are bought and sold based on the property's ability to produce an income; therefore, the price paid for a property is directly related to the amount of income the property is capable of producing. The appraisal staff utilizes income and expense data furnished by property owners; data collected by staff and information from local market study publications. Income models by property use and neighborhood / market area are developed and deployed for use in valuation.

The following model is the basis for commercial property valuation by the income approach:

PGR
-V&C
EGR
+SI
EGI

-Allowable EXP
-Reserves for Replacement
NOI

Value = NOI/CAP Rate

This income model reflects the normalization of an income stream from Potential Gross Rent at 100% occupancy to an indication of Net Operating Income. The process involves estimating the rental producing capacity of the subject property under prudent management (PGR). Market derived vacancy and collections (V&C) losses are subtracted from the potential gross rent to arrive at effective gross rent (EGR). Any net income from secondary property uses (vending income or parking income, etc.) (SI) are added to the effective gross rent to yield an estimate of effective gross income (EGI).

Allowable expenses are the expenses that are recurring annual expenses necessary to operate the property sufficiently to achieve the projected level of effective gross income. These vary by property type and are researched by the commercial appraisal staff. Once identified or projected, the allowable expenses are subtracted from the effective gross income. Reserves for replacement are estimated by considering the amortized costs of replacing certain building components whose economic lives are shorter than total economic life of the improvement (carpets, roof cover, air conditioning, etc.). Generally, these are calculated by either dividing the replacement cost new of the item by its economic life, a flat reserve amount per unit justified by the market, or a percentage of EGI; whichever is deemed appropriate. Once all allowable expenses and reserves have been identified or calculated, these amounts are subtracted from the effective gross income to yield an estimate of net operating income (NOI).

Rates and multipliers will be used to convert the income stream into an estimate of market value. These include gross 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 will be based on a thorough analysis of the market.

Direct Capitalization will be used in the income approach models. This methodology involves dividing the net operating income by the appropriate capitalization rate to arrive at an indication of market value for a specific property. Capitalization rates utilized will be derived from the market as to estimate what a market participant would require from an investment as of the date of appraisal. Additionally, overall capitalization rates may be derived from the summation method, band-of-investment, debt coverage ratio, or obtained from published sources for similar properties. The capitalization rates utilized will relate directly to satisfying the market return requirements of both the debt and equity positions of a real estate investment.

In valuing property by the income approach, the district will consider the income characteristics of all properties, as they are available. Adjustments will be made as necessary and appropriate and the models, schedules, and value indications developed will be made pursuant to section 23.012 of the Texas Property Tax Code.

UTILITIES, RAILROADS, AND PIPELINES

The Jim Hogg County Appraisal District will contract with an appraisal firm with specific expertise for the valuation of utility, railroad, and pipeline properties. These properties will be reappraised annually by the firm using recognized methods and techniques as required by the *Uniform Standards of Professional Appraisal Practice.* The appraisal models considered in the valuation of these properties will be:

$$MV = RCN - D$$

And

Allocated Unit Appraisal

Each of the values produced by these models will be considered and the property value will be allocated to the taxing entities based upon the method that is deemed most appropriate by property type.

The appraisal firm(s) will consider all factors affecting value, conduct physical inspection as necessary, research information from published sources, and receive copies of renditions from property owners in the development of their appraisal. Based upon the information gathered in these processes, data characteristics of these properties will be updated annually in accordance with tax code requirements.

MINERAL INTERESTS

The Jim Hogg County Appraisal District will also contract with an appraisal firm with specific expertise in the appraisal of oil and gas properties to value mineral interests. The appraisal firm will reappraise these properties annually.

The appraisal firm(s) will utilize a form of yield capitalization of the income approach called Discounted Cash Flow Analysis (DCF) in order to accurately value these interests. The factors affecting the value of mineral interests include reserve estimates, production volume and pattern, product prices, operator expenses, and the discount rates applied to discount future income into an indication of present worth.

As mineral reserves are subsurface in nature, this situation makes specific physical inspection unavailable as a method of collecting data. The appraisal firm(s) will collect data from the Texas Railroad Commission, Comptroller of Public Accounts, and renditions from owners, published sources, and data services to identify

characteristics affecting value. All of the information gathered will be considered in the estimation of the value of mineral interests.

SPECIAL VALUATION PROPERTIES

The Jim Hogg County Appraisal District values agricultural and wildlife management land in compliance with the Comptroller's *Manual for the Appraisal of Agricultural Land.* This publication prescribes that the cash lease and the share lease methods of appraisal are appropriate when developing productivity value estimates.

The cash lease method is a modified income approach using the lease amount (income per acre) minus expenses (landowner) to yield 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 appropriate capitalization rate for the year to give a value per class of agricultural production. The agriculture appraisal staff will collect lease data from owners and lessees on an ongoing basis in order to develop "net-to-land" figures by agricultural classification.

BUSINESS AND INDUSTRIAL TANGIBLE PERSONAL PROPERTY

These property types will be valued each appraisal year by the district's appraisal staff. The Personal Property Department engages in an annual canvas field review to identify new businesses to be added to the roll, movement of existing businesses to different locations or business closings, and data review of current property characteristics in property records. Once pertinent data is updated in the field, property rendition forms will be sent to owners in order that they may declare their taxable personal property according to current law. The information obtained from renditions will be utilized by the district to develop an estimate of market value. Generally, estimates of value developed for industrial and personal property will be produced by mid to late May of each appraisal year. The notices of appraised value for these property types are generally mailed in early to mid June.

Cost Approach

The primary approach to the valuation of business and industrial personal property will be the cost approach. Cost schedules will be developed by the district's staff and applied to specific business codes. These schedules will be reviewed and updated annually to conform to changing market conditions.

Valuation models will be created and refined using actual original cost data obtained from renditions to derive the replacement cost new (RCN) per applicable unit for a specific category of assets. The data obtained will be compiled for review and models will be built and or adjusted as necessary. The revised models will be tested in accordance to accepted methods and techniques.

These model values will be used specifically to estimate the value of new accounts for which no property owner's rendition is filed. The models will also be utilized to test renditions filed by property owners or their agents. In the event that property rendition information falls significantly outside of a statistical tolerance from the model, further review of the property may be conducted.

The percent good depreciation factors utilized will be based on the depreciation schedules for furniture, fixtures, and equipment as developed by district staff tested against *Marshall and Swift.* 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:

MV = RCN x PERCENT GOOD FACTOR

Leased equipment and multi-location assets may be valued using original costs and percent good depreciation schedules mentioned above.

Sales Comparison Approach

Business personal property is typically sold as part of the business as a whole, which makes this approach less suitable for valuing most personal property. This approach is generally suitable for the valuation of certain types of vehicles and heavy equipment. Value estimates for vehicles will be based on data furnished by recognized sources such as NADA among others. Any sales of personal property will be considered and appropriate weight will be given based upon individual circumstance.

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. The exception to this is in the case of leased equipment. When reliable data on equipment leases is available, the income approach may be used to estimate the fair market value of the equipment.

THE MASS APPRAISAL REPORT

Each appraisal year the required Mass Appraisal Report will 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 STANDARD RULE 6-8 of the *Uniform Standards of Professional Appraisal Practice.* The signed certification by the Chief Appraiser will be compliant with STANDARD RULE 6-9 of *USPAP.*

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 is specified and tested annually.

A variety of evidence is utilized by the district depending on the property type of the subject of the protest. In addition, the district updates the evidence supplied to an owner, agent, or the Appraisal Review Board to be contemporaneous with the valuation procedures utilized. Some examples of the evidence that may be used include, but are not limited to:

1. Property sales information
2. Property sales adjustment grids
3. Property equity adjustment grids
4. Gross Rent / Income Multiplier data
5. Proforma and actual income data
6. Property characteristics data including photos as applicable
7. Aerial photography
8. Cost approach reports as applicable
9. Property Renditions as applicable
10. Published reports regarding cost, market, or income data
11. Schedules and or models utilized
12. Any other information collected by the district

EQUITY PROTEST

Step 1: Determine the Market Value of the Subject.
Step 2: Calculate the Subject Property's Appraisal Ratio.
Step 3: Consider the Appraisal District's Ratio Study Evidence
Specific Category Ratio Study for the Neighborhood
Specific Category Ratio Study for the Appraisal District
Specific Category Ratio Study for the School District
Overall Ratio Study for the Appraisal District
Overall Ratio Study for the School District
Step 4: Determine the Median Appraisal Ratio
Step 5: Make the Final Determination for the Subject Property

Exhibit A

JIM HOGG CAD 2015 REAPPRAISAL WORK TIMELINE (PROPOSED)
August thru September

Work 1st-2nd utility meter and
septic tank permits
Work Rechecks (revisits)
Discover new subdivisions
Field work City of Hebbronville south of Galbrath Street, including South Fork Estate south of Hwy 16.
Data Entry

October thru December

3rd Quarter utility meter and
septic tank permits
Continue field work City of Hebbronville south of Galbrath Street, including South Fork Estate south of Hwy 16.
Review and analyze cost tables and compare new construction cost from all residential properties
Quality control
State Clerical
Report
Review problem areas (discovered from conference hearings and current sales reports.)
Data Entry
Run sales valuation reports/ Analysis

January thru
March

Begin personal property inspections for Jim Hogg ISD
Drive out new construction areas.
Work 4th Quarter utility meter and septic tank permits
Work Rechecks
Complete field work City of Hebbronville south of Galbrath Street, including South Fork Estate south of Hwy 16, complete by March 31.
Redefine market areas if necessary
Data Entry
Quality control
Perform Sales Analysis/ Market shifts
Test results of neighborhood adjustments with sales ratios
Analyze preliminary and final values
Audit Final Values

April-July

Data Entry
Prepare final sales reports and maps for protest season.
Informal/Formal procedures

JIM HOGG CAD 2016 REAPPRAISAL WORK TIMELINE (PROPOSED)
August thru September

Work 1st-2nd quarter utility
meter and septic tank permits
Work Rechecks (revisits)
Discover new subdivisions
Field work City of Hebbronville north of Galbrath Street, including Los Lomitas S/D north of Hwy 16.
Data Entry

October thru December

3rd Quarter utility meter and
septic tank permits.
Continue field work City of Hebbronville north of Galbrath Street, including Los Lomitas S/D north of Hwy 16.
Review and analyze cost tables and compare new construction cost from all residential properties
Quality control
State Clerical
Report
Review problem areas (discovered from conference hearings and current sales reports.)
Data Entry
Run sales valuation reports/ Analysis

January thru
March

Begin personal property inspections for Jim Hogg ISD
Drive out new construction areas.
Work 4th Quarter utility meter and septic
tank permits
Work Rechecks
Complete field work City of Hebbronville north of Galbrath Street, including Los Lomitas S/D north of Hwy 16, complete by March 31.
Redefine market areas if necessary
Data Entry
Quality control
Perform Sales Analysis/ Market shifts
Test results of neighborhood adjustments with sales ratios
Analyze preliminary and final values
Audit Final Values

April-July

Data Entry
Prepare final sales reports and maps for protest season.
Informal/Formal procedures

Jim Hogg CAD 2015-2016 Reappraisal Plan
Estimated Parcel Counts by ISD

		Jim Hogg
A SINGLE FAMILY RESIDENCE		1867
B MULTIFAMILY RESIDENCE		15
C1 VACANT LOT		530
C2 COLONIA LOTS		
D1 QUALIFIED OPEN-SPACE LAND		1621
D2 IMPROVEMENTS ON OPEN-SPACE LAND		
E NON-QUALIFIED LAND & IMPROVEMENTS		502
F COMMERCIAL REAL PROPERTY		225
G OIL AND GAS		3997
H PERSONAL VEHICLES		
J INDUSTRIAL		161
L COMMERCIAL PERSONAL		347
M TANGIBLE OTHER PERSONAL		36
N INTANGIBLE PROPERTY		
O RESIDENTIAL INVENTORY 378		
S SPECIAL INVENTORY TAX		
X TOTALLY EXEMPT PROPERTY		144
	Total	9445

JIM HOGG CAD ANNUAL EVENTS CALENDAR

-	Event	Dept/Staff	Comments:
January	**Source-Property Tax Calendar*		**Property Tax Code*
-			
1 •	**New Appraisal Year - Dept's begin working on:**		
•	Accounts flagged for review, 4th quarter building permits, and pick-up of	Appraisal	
	new construction continues		
•	Sales Ratio Analysis begins	Appraisal	
•	New businesses, work sales permits, renditions & Mobile Home Park tenant lists	Personal Prop	
•	Mail & process Homestead Exemptions for new owners	Taxpayer Info	
•	Continue setting up new subdivision plats & ownership updates & map projects	Mapping	
1	**Date that values and qualification for certain exemptions are determined*		**Sections 11.42,23.01,*
	(except for inventories appraised Sept. 1).		*23.12*
2	**Date rendition period begins; continues through April 15th*		**Section 22.23*
•	Print & Mail BPP Renditions- businesses, watercraft & aircraft	Personal Property	
•	Submit Ad to newspapers- **Low Income Apartment Cap Rate**	Admin/Comm Appr	**Sec.11.1825*
•	Administer Oath of Office to newly elected Board of Directors (chosen in	Admin/ARB Dept.	BOD-at scheduled meeting
	uneven yrs)& ARB Members (every year-staggered terms).		ARB-at scheduled meeting
•	Board of Directors Approve: Taxpayer Liaison Officer, Investment Policy &	BOD	BOD-at scheduled meeting
	Agricultural Advisory Board		
•	Accountant submits District's Investment Policy for approval by CAD's BOD.	Accounting	at scheduled BOD meeting

-	Event	Dept/Staff	Comments:
31 •	*Deadline-Texas Comptroller's preliminary Property Value Study.	Appraisal	*Section 403.302
	*Last day for chief appraiser to deliver applications for agricultural designation	Appraisal	*Section 11.44 , 23.43
	and exemptions requiring annual applications.		
	*Last day for appraisal district to give public notice of capitalization rate	Appraisal	*Sec.11.1825
	used to appraise property with low and moderate income housing exemption.		
February			
1 •	Second Quarter Allocation letters sent to entities	Accounting	
•	Neighborhood Adjustments begin	Appraisal	
15 •	Exemption verification letters mailed to entities	Administration	
17 •	Submit Ads to newspapers- **Taxpayer Rights & Exemptions**	Administration	
28	*Last day to request cooperative housing appraisal.		*Section 23.19
March			
1 •	Test results of Neighborhood Adjustments with Sales Ratios.	Appraisal	
14	*Deadline to file written appeal of PVS findings with the State Comptroller.		*Section 403.303
•	Audit Appraisal work-clerical & market data	Appraisal	
18 •	Submit Ad to newspapers-**Protest & Appeals Procedures**	Admininistration	*Section 41.41,41.70
23 •	Submit Letter to Tax-Assessor Collectors regarding form which rolls are provided	Admininistration	*Section 26.01(a) *by April 1st
31	*Last day for qualified community housing development		*Section 11.182

-	Event	Dept/Staff	Comments:
	corporations to file		
	listing of property acquired or sold during the past year with chief appraiser.		
	Event	**Dept/Staff**	**Comments:**
April			
◦	**NOTICES ARE MAILED. Informal Hearings begin the next day.**	All Departments	Set up Phone Bank
•	****Appraisal Review Board Members attend training classes ****	ARB	**Section 5.041*
1	**Last day (or as soon as practicable thereafter) for chief appraiser to mail*		**Sections 25.19, 1.07-1.11*
	notices of appraised value for single-family residence homestead properties.		
1	**Last day for the chief appraiser to notify the taxing units of the form in which*		**Section 26.01(a)*
	the appraisal roll will be provided for them.		
15	**Last day for property owners to file personal property renditions and property*		**Section 22.23*
	information reports unless they request a filing extension in writing.		
30 •	**Last day for chief appraiser to certify estimate of school district's preliminary*		**Section 26.01*
	taxable value for school districts, counties & cities and send notification letters		*mail letters for delivery
	of values to each entities tax-assessor collector.		before April 30th
May			
-			
1 •	**Operations Survey** - sent by PTAD to be returned in 60 days	All Departments	
1 •	Third Quarter Allocation letters sent to entities	Accounting	
2	**Last day for property owners to file these applications or reports with the CAD:*		**Section 11.43*
	•Some exemption applications		

-	Event	Dept/Staff	Comments:
	•Notice property no longer entitled to an exemption not requiring annual applic.		*Section 11.43
	•Property no longer qualifies for 1-d & 1-d-1 Ag use & other special uses properties		*Sec. 23.43,23.54,23.75
	•Railroad Rolling Stock reports		*Sec. 24.32
	•Requests for separate listing of separately owned land & Imps.		*Sec. 25.08
	•Requests for proportionate taxing of a planned unit development property		*Sec. 25.09
	•Request for separate listing of undivided interests		*Sec. 25.11
	•Request for joint taxation of separately owned mineral interests		*Sec. 25.12
2	*Last day (or as soon as practible thereafter) for chief appraiser to mail notices of		*Section 25.19
	appraised value for properties other than single-family residence homesteads.		
16	Formal Hearings Begin	ARB/Support Staff	
16	*Last day for property owners to file renditions and property information reports if		*Section 22.23
	they requested an extension in writing. (Can be extended 15 days for good cause)		
•	*Last day (or as soon as practicable thereafter) for chief appraiser to mail notices		*Sec. 11.45,23.44,23.57, ,
	of appraised value, denial of exemptions and denial of special appraisals.		
•	*Date (or as soon as practicable thereafter) for chief appraiser to prepare		*Sec. 25.01, 25.22
	appraisal records & submit to ARB.		
19	*Last day for chief appraiser to count taxing units' resolutions to change CAD's		*Section 6.061
	finance method.		
24	*Last day for chief appraiser to notify taxing units of change in the CAD's finance		*Section 6.061
	method.		

-	Event	Dept/Staff	Comments:
31	*Last day for taxing units to file challenges with ARB(or within 15 days after ARB		*Section 41.04
	receives appraisal records, whichever is later).		
	***Last day for property owners to file protest with ARB (or by 30th day after**		*Section 41.44
	***notice of appraised value is delivered, whichever is later).**		
	Event	Staff/Dept.	Comments
June			
1	*Last day for religious organizations to amend charters and file new applications		*Section 11.20 & 11.421
	for Section 11.20 exemptions.		
14 •	*Last day for chief appraiser to submit recommended budget to CAD board and	Accounting/ CA	*Section 6.06
	taxing units(unless taxing units have changed CAD's fiscal year).		"before June 15th"
16	*Beginning date that CAD board may pass resolution to change CAD finance method,		*Section 6.061
	subject to taxing units' unanimous approval. Period ends August 15th		
30	*Last day for private schools to amend charters to conform with Section 11.21 & file		*Section 11.422
	new applications for exemptions(or within 60 days of exemption denial, whichever later).		
	*Last day for CAD's to report formation of reinvestment zones and tax abatement		*Section 312.005
	agreements to the Texas Comptroller.		
•	Reappraisal Plan submitted to Board of Directors *	Appraisal/C A	
July			
1 •	*Last day for ARBs to complete review of railroad rolling stock values for	ARB	*Section 24.35
	submission to Texas Comptroller (or as soon as practicable thereafter).		

-	Event	Dept/Staff	Comments:
20 •	*Date ARB must approve appraisal records, but may not do so if more that 5%	ARB	*Section 41.12
	of total appraised value remains under protest. The board of directors of a CAD		
	with a population of 1 million or more may postpone the deadline to August 30th.		
25	*Last day for Texas Comptroller to certify apportionment of railroad rolling stock		*Section 24.38
	value to counties, with supplemental records after that date.		
•	*Last day for chief appraiser to certify appraisal roll to each taxing unit .		*Section 26.01
	The chief appraiser also shall certify the district appraisal roll to the comptroller	IT	
25 •	Secretary of CAD board of directors sends written notification to all entities of	BOD	*even yrs (2014,2016,,)
	public hearing about Reappraisal Plan.* (10 days prior to BOD mtg)		Section 6.06(b)
August			
•	Appraisers begin field reviews & pick-up of new construction for new year	Appraisal	
1	*Last day for property owners to apply for September 1 inventory appraisal for		*Section 23.12
	the next year.		
1 •	Fourth Quarter Allocation letters sent to entities.	Accounting	
1 •	Electronic Appraisal Report Submission (EARS) to Comptroller (after Supp 1-annually)	Commercial Appr/IT	*Section 5.07
	Comptroller will send back report in Sept-Oct. -CAD mails Report of Prop Val to entities by November 1st.		
9 •	**Board of Directors Elections**-Odd yrs.- CA notifies entities of election process.		nomination forms sent
	(*mail early in month so entities can include on September Agendas)		
15 •	Mail Approved Reappraisal Plan to entities. (every 2 years)	Administration	
	*Last day for CAD board to pass resolution to change CAD finance method, subject		*Section 6.061
	to taxing unit's unanimous consent.		
	*Last day for CAD board to pass resolution to change number of directors, method		*Section 6.031

-	Event	Dept/Staff	Comments:
	for appointing or both, and deliver to each taxing unit.		
31 •	Submit Ad-**Public Hearing for CAD Budget at Board of Directors Meeting**	Administration	**Section 6.062 *10* days
			prior to BOD mtg
	Event	**Staff/Dept.**	**Comments**
31 •	Secretary of CAD Board of Directors sends entities written notification of Budget	BOD	10 days prior to Public
	Hearing during September's Board of Directors meeting.		Meeting
-	**Last day for property owner to give, in writing, correct address to CAD for tax bill*		**Section 33.011*
	(penalties & interest waived if the bill is not sent to correct address 21 days before delinquency date).		
	**Last day taxing units may file resolutions with the CAD board to oppose proposed*		**Section 6.061*
	change in the CAD finance method.		
	**Last day taxing unit entitled to vote for appointment of CAD directors to file a*		**Section 6.031*
	resolution opposing a change by the CAD board in selection of directors.		
September			
1	**The following years taxable value of inventories may be determined as of this date,*		**Section 23.12*
	at property owner's written option.		
15 •	**Last day for CAD board to adopt CAD budget, unless a district has changed its*	BOD	**Section 6.06*
	fiscal year. BOD approves budget at scheduled meeting.		
	**Last day for CAD board to notify taxing units in writing if a proposal to change a*		**Section 6.061*
	finance method by taxing units' unanimous consent has been rejected.		
	**Last day for CAD board to notify taxing units in writing if a proposal to change the*		**Section 6.031*
	number or method of selecting CAD directors is rejected by a voting taxing unit.		
16 •	*Approved CAD Budget is mailed to entities.*	Administration	

-	Event	Dept/Staff	Comments:
16 •	Submit Ad to newspaper for **Appraisal Review Board Applicants** for the next year	Administration	
20 •	Submit Ad to newspaper for **Auditor** (even yrs) **Depository** (odd yrs). BOD approves	Accounting/ Admin	Auditor-Sect. 6.063
	in October & November meetings.* for Oct. 1st publication		Depository-Sect. 6.09
October			
-			
1 •	**CAD Board of Director Elections**-*Before October 15,* eligible voting entities may nominate by resolution one candidate for each position on the board.*		*Odd yrs (2015, 2015, etc,)
12 •	Valuation Service Contract approval scheduled at monthly BOD meeting.*	BOD	*Odd yrs (2015, 2015, etc,)
•	Board of Directors interview & select new Appraisal Review Board members.*	BOD	*at scheduled BOD meeting
15 •	Mail copy of approved Audit report to presiding officers of taxing entities	Administration	Section 6.063(b)
27 •	**CAD Board of Director Elections**-Before October 30, Chief Appraiser prepares		*deadline to return-Dec. 16
	ballot and delivers it to the presiding officer of each entitled voting entity.*		
November			
1 •	First Quarter Allocation letters sent to entities	Accounting	
•	Mail Report of Property Values to Entities, TAC's & Comptroller (receive in Oct. from Comptr)	Appraisal/Admin	mailed 1st wk of Nov.
December			
15 •	Mail Dealer Declaration forms(motor vehicles, vessels, manufactured houses,	Taxpayer Info	Mail before January 1
	heavy equipment, etc.)		
•	Before December 15th, the entities governing bodies shall submit their votes for new CAD Board of Directors. *		*Odd yrs (2015, 2015,etc)

-	Event	Dept/Staff	Comments:
	*Source Texas Property Tax Code		

PRITCHARD & ABBOTT, INC.
VALUATION CONSULTANTS

S.B. 1652* BIENNIAL REAPPRAISAL PLAN

FOR THE ANNUAL APPRAISAL FOR

AD VALOREM TAX PURPOSES OF

MINERAL, INDUSTRIAL, UTILITY AND

RELATED PERSONAL PROPERTY

For Tax Years:

2015 and 2016

Originally Printed: July 1, 2014

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

TABLE OF CONTENTS

POLICY STATEMENT OF PRITCHARD & ABBOTT, INC., ON THE REAPPRAISAL OF MINERAL, INDUSTRIAL, UTILITY AND RELATED PERSONAL PROPERTY

In 2005, the Texas Legislature, in 79th Regular Session, authorized in S.B. 1652 the amending of section 6.05 of the Texas Property Tax Code by adding Subsection (i), as follows:

> *"Requires the board of directors of an appraisal district (board), to ensure adherence with generally accepted appraisal practices, to develop biennially a written plan for the periodic appraisal of all property within the boundaries of the district according to the requirements of 25.18 (Periodic Reappraisals) and requires the board to hold a public hearing to consider the proposed plan. Requires the secretary of the board, not later than the 10th day before the date of the hearing, to 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. Requires the board, not later than September 15 of each even-numbered year, to complete its hearings, make amendments, and by resolution finally approve the plan. Requires copies of the approved plan to 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."* (Bill Analysis per Senate Research Center)

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 Standard 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.

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 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.

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 mandates (Standard 6), particularly with regards to some, but not all, of the model calibration and statistical performance testing confines. However, P&A does employ elements of mass appraisal techniques with regards to the definition and identification of property characteristics and model specification and application.

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).

P&A will clearly state or otherwise make known all extraordinary assumptions, limiting conditions, hypothetical assumptions, and/or jurisdictional exceptions in its appraisals as they are conveyed to our clients. The client and all intended users should be aware the appraisals are by definition "limited" versus "complete." In addition, all appraisal reports, unless otherwise contracted for by the client, will be of a "summary" nature vs. "self-contained" whereas concise explanations of appraisal methods and results are emphasized for purpose of transparency, brevity and clarity. *The use of limited appraisals in conjunction with summary reports in no way implies non-compliance with USPAP.* P&A believes, with its vast experience and expertise in these areas of appraisal, that all values rendered are credible, competent, uniform and consistent; and most importantly for ad valorem tax purposes, achieved 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 are not credible within the context of the intended use(s) of the appraisal.

PREAMBLE

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

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

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

USPAP addresses the ethical and performance obligations of appraisers through DEFINITIONS, Rules, Standards, Standards Rules, and Statements. 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 Rules 1 and 2:** establish requirements for the development and communication of a real property appraisal.
- **Standards Rule 3:** establishes requirements for the development and communication of an appraisal review.
- **Standards Rules 4 and 5:** retired in 2014.
- **Standards Rule 6:** establishes requirements for the development and communication of a mass appraisal.
- **Standards Rules 7 and 8:** establish requirements for the development and communication of a personal property appraisal.
- **Standards Rules 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 Rule 6 is assumed to be the applicable standard 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 Standard 6 can or should apply in ad valorem tax work. However, it appears that an appraiser engaged in ad valorem tax work in Texas is not specifically required by law to follow these USPAP standards if in fact mass appraisal practices have not been used to appraise the subject property. In this case it could be deemed appropriate to invoke the Jurisdictional Exception Rule which is applicable when there is a contradiction between the requirements of USPAP and the law or regulation of a jurisdiction. Please see the P&A Policy Statement on USPAP as provided elsewhere in this report for a more detailed discussion regarding this matter.

ETHICS RULE

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

- 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, appraisal review, or appraisal consulting assignment completed under USPAP, an appraiser is required to certify compliance with these Standards.

CONDUCT

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

An appraiser must perform ethically and competently in accordance with USPAP and not engage in conduct that is unlawful, unethical, or improper. An appraiser who could reasonably be perceived to act as a disinterested third party in rendering an unbiased appraisal, review, or consulting service must perform assignments with impartiality, objectivity, and independence and without accommodation of personal interests; in short, the appraiser must not perform an assignment with bias.

An appraiser must not advocate the cause or interest of any party or issue, or accept an assignment that includes the reporting of predetermined opinions and conclusions.

An appraiser must not misrepresent his or her role when providing valuation services that are outside of appraisal practice, must not engage in criminal conduct, and must not perform an appraisal assignment in a grossly negligent manner.

An appraiser is required to avoid any action that could be considered misleading or fraudulent. In particular, it is unethical for an appraiser to use or communicate a misleading or fraudulent report or to knowingly permit an employee or other person to communicate a misleading or fraudulent report.

An appraiser must not use or rely on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.

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

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

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

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

MANAGEMENT

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

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

Advertising for or soliciting assignments in a manner that is false, misleading, or exaggerated is unethical. Decisions regarding finder or referral fees, contingent compensation, and advertising may not be the responsibility of an individual appraiser, but for a particular assignment it is the responsibility of the individual appraiser to ascertain that there has been no breach of ethics, that the assignment consulting assignment has been prepared in accordance with USPAP Standards, and that the report can be properly certified when required by USPAP Standards Rules 2-3, 3-3, 5-3, 6-9, 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, appraisal review, or appraisal consulting 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. Persons 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.

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, appraisal review, and consulting assignment. The workfile must include the identity, by name and type, of any intended users; true copies of any written reports, summaries of any oral reports or testimony, and all other data, information, and documentation necessary to support the appraiser's opinions and conclusions and to show compliance with this rule and all other applicable USPAP Standards.

A workfile preserves evidence of the appraiser's consideration of all applicable data and statements required by USPAP and other information as may be required to support the findings and conclusions of the appraiser.

A photocopy or an electronic copy of the entire actual written appraisal, review, or consulting report sent or delivered to a property owner or review committee satisfies the requirements of a true copy. Care should be exercised in the selection of the form, style, and type of medium for written records, which may be handwritten and informal, to ensure they are retrievable by the appraiser throughout the applicable retention period.

A workfile must be in existence prior to and contemporaneous with the issuance of a written or oral report. A written summary of an oral report must be added to the workfile within a reasonable time after the issuance of the oral report.

A workfile must be made available by the appraiser when required by due process of law. An appraiser must have custody of his or her workfile, or make appropriate workfile retention, access, and retrieval arrangements with the party having custody of the workfile. 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.

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, appraisal review, and appraisal consulting 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, appraisal review, and appraisal consulting 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 property identify the appraisal, appraisal review or appraisal consulting problem to be solved. The assignment elements necessary for problem identification are addressed in the Standards Rule 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 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.

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.

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.

Standard 6 applies 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. Mass appraisals can be prepared with or without computer assistance. The Jurisdictional Exception Rule may apply to several sections of Standard 6 because ad valorem tax administration is subject to various state, county, and municipal laws. 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 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 Standard 6 because ad valorem tax administration is subject to various state, county, and municipal laws.

As previously stated in the P&A Policy Statement (pages 2 and 3 of this report), it may not be possible or practicable for all the mass appraisal attributes listed above to be rigorously applied to the many types of complex and/or unique properties that P&A typically appraises. Often there are contractual limitations on the scope of work needed or required. More prevalently, these types of properties do not normally provide a reliable database of market transactions (or details of transactions) necessary for statistically supportable calibration of appraisal models and review of appraisal results. Generally these two functions are effectively accomplished through annual extended review meetings with taxpayers (and clients) who provide data, sometimes confidentially, that allows for appraisal models to be adjusted where necessary. Nevertheless, and not withstanding whether P&A implicitly or explicitly employs or reports all attributes listed above, in all cases P&A at the minimum employs tenants of "generally accepted appraisal methods" which are the genesis of USPAP Standards.

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

The various sections of Standard 6 are briefly summarized below:

- Standard 6-1: 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 Rule 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 6-2: Defines the introductory framework requirements of developing a mass appraisal, focusing on the identification and/or definition of: client(s), intended users, effective date, 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 6-3: 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 6-4: 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 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. Model calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model.

- Standard 6-5: Defines requirements for collection of sufficient factual data, in both qualitative and quantitative terms, necessary to produce credible appraisal results. The property characteristics collected must be contemporaneous with the effective date of the appraisal. The data collection program should incorporate a quality control procedure, including checks and audits of the data to ensure current and consistent records. This rule also calls for calls for an appraiser, in developing income and expense statement sand cashflow 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 6-6: 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 the 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 6-7: 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.

- Standard 6-8: Defines requirements of a mass appraisal written report (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 6-9: Defines requirements for appraiser certification of the mass appraisal written report.

The following sections of this report discuss in detail the various elements of the mass appraisal written report as required by USPAP Standard 6-8, with regards to P&A appraisal of Mineral Interests, Industrial-Utility-Personal Property, and Real Estate.

REAPPRAISAL OF MINERAL INTERESTS

Note: This section, in conjunction with any attached or separately provided P&A-generated appraisal reports specific to the subject property or properties, constitutes the "mass appraisal written report" as required by USPAP Standards Rule 6-8. USPAP Standards Rule 6-9 (certification) can be found at the end of this report. USPAP Standards Rules 6-1 through 6-7 (instructions and explanations regarding the development, application, and reconciliation of mass appraisal values), as they apply to P&A mass appraisal procedures, are discussed below. USPAP DOES NOT DICTATE THE FORM, FORMAT, OR STYLE OF APPRAISAL REPORTS, WHICH ARE FUNCTIONS OF THE NEEDS OF USERS AND PROVIDERS OF APPRAISAL SERVICES. USPAP ALSO DOES NOT MANDATE THAT EACH APPRAISAL REPORT BE LENGTHY AND FULL OF DISCLAIMERS. Readers should note that all P&A reports, unless stated otherwise, are of a "summary" nature versus "self-contained," whereas additional documentation and detail may be available per certain Texas Property Tax Code provisions.

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, etal.) 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.

Intended users of our reports are typically the client(s) for which we are under direct contract and taxpayers or their agents who own and/or represent the subject property being appraised. 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 Biennial Reappraisal Plan 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 Biennial Reappraisal Plan should be referenced.

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

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

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

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

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

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

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

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

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

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

Appraisal Resources

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

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

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

VALUATION APPROACH (MODEL SPECIFICATION)

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

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

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

Approaches to Value for Petroleum Property

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

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

Many times when these properties do change hands, it is generally through company mergers and acquisitions where other assets in addition to oil and gas reserves are involved; this further complicates the analysis whereby a total purchase price must be allocated to the individual components - a speculative and somewhat arbitrary task at best. In the case of oil and gas

properties, a scarcity of sales requires that every evidence of market data be investigated and analyzed. Factors relative to the sale of oil and gas properties are:

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

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

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

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

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

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

DATA COLLECTION/VALIDATION

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

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

Data Collection Procedures: Electronic and field data collection requires organization, planning and supervision of the appraisal staff. Data collection procedures for mineral properties are generally accomplished globally by the company; i.e., production and price data for the entire state is downloaded at one time into the computer system. Appraisers also

individually gather and record specific and particular information to the appraisal file records, which serves as the basis for the valuation of mineral properties. P&A is divided into four district offices covering different geographic areas. Each office has a district manager, appraisal and ownership maintenance staff, and clerical staff as appropriate. While overall standards of performance are established and upheld for the various district offices, quality of data is emphasized as the goal and responsibility of each appraiser.

VALUATION ANALYSIS (MODEL CALIBRATION)

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

INDIVIDUAL VALUE REVIEW PROCEDURES

Individual property values are reviewed several times in the appraisal process. P&A's discounted cashflow 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.

CALENDAR OF EVENTS/DELIVERABLES TO CLIENT

As an appraisal contractor, the calendar of events and/or deliverables is largely dependent upon the client's needs and requirements. That said, P&A generally follows the property tax calendar as promulgated by the Property Tax Assistance Division (PTAD) whereas certain work activities must be accomplished by certain deadlines as specified by the Property Tax Code. P&A's contracts typically involve compensation being received from the client only after completion of certain events or deliverables. For example, the CAD may make quarterly payments per the following schedule:

- February, after completion of personal property field inspections;
- May, after completion and mailing of Notices of Appraised Value;
- August, after completion of Appraisal Review Board hearings; and

- November, after Certification of values.

The timetable regarding the sections described above is generally as follows:

- **Data Collection/Validation** occurs beginning in the Fall (October) prior to a tax year and continues into the Spring of that same tax year;
- **Valuation Analysis (Model Calibration)** occurs in the Spring (March - May) of a tax year and continues into the Summer (June - August) of that same tax year;
- **Individual Value Review Procedures** occurs concurrent, more or less, with Valuation Analysis; and
- **Performance Tests** occurs later in the tax year after certification of values.

REAPPRAISAL OF INDUSTRIAL, UTILITY, AND RELATED PERSONAL PROPERTY

Note: This section, in conjunction with any attached or separately provided P&A-generated appraisal reports specific to the subject property or properties, constitutes the "mass appraisal written report" as required by USPAP Standards Rule 6-8. USPAP Standards Rule 6-9 (certification) can be found at the end of this report. USPAP Standards Rules 6-1 through 6-7 (instructions and explanations regarding the development, application, and reconciliation of mass appraisal values), as they apply to P&A mass appraisal procedures, are discussed below. USPAP DOES NOT DICTATE THE FORM, FORMAT, OR STYLE OF APPRAISAL REPORTS, WHICH ARE FUNCTIONS OF THE NEEDS OF USERS AND PROVIDERS OF APPRAISAL SERVICES. USPAP ALSO DOES NOT MANDATE THAT EACH APPRAISAL REPORT BE LENGTHY AND FULL OF DISCLAIMERS. Readers should note that all P&A reports, unless stated otherwise, are of a "summary" nature versus "self-contained," whereas additional documentation and detail may be available per certain Texas Property Tax Code provisions.

INTRODUCTION

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

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

Intended users of our reports are typically the client(s) for which we are under direct contract and taxpayers or their agents who own and/or represent the subject property being appraised. 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.

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.

This section of P&A's Biennial Reappraisal Plan 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 Biennial Reappraisal Plan 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.

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). P&A submits annual or biannual contract bids to the Office of the Chief Appraiser and is bound to produce appraisal estimates on industrial, utility and personal properties within the cost constraints of said bid. Any appraisal practices and procedures followed by P&A not explicitly defined through IAAO or USPAP requirements are specified by the Texas Property Tax Code and/or at the specific request or direction of the Office of the Chief Appraiser.

Appraisal Resources

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

Data: A set of data characteristics (i.e. original cost, year of acquisition, quantities, capacities, net operating income, property description, etc.) for each industrial, utility and personal property is collected from various sources. This data is maintained in either hard copy or computer files. Each property's characteristic data drives the appropriate computer-assisted appraisal approach to valuation.

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

VALUATION APPROACH (MODEL SPECIFICATION)

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

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

The goal for valuation of industrial, utility and personal properties is to appraise all taxable property at "fair market value". The Texas Property Tax Code defines Fair Market value as the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- both the seller and the purchaser know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use; and

- both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Approaches to Value for Industrial, Utility, and Personal Property

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

Market Approach: This approach is characterized as one that uses sales data available from actual transactions in the market place. There are two factors that severely limit the usefulness of the market approach for appraising industrial, utility and personal properties. First, the property sales data is seldom disclosed; consequently there is insufficient market data for these properties available for meaningful statistical analysis. Second, all conditions of sale must be known and carefully investigated to be sure one does have a comparative indicator of value. Many times when these properties do change hands, it is generally through company mergers and acquisitions where other assets and intangibles in addition to the industrial, utility and personal property are involved. The complexity of these sales presents unique challenges and hindrances to the process of allocation of value to the individual components of the transaction.

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

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

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

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

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

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

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

DATA COLLECTION/VALIDATION

Sources of Data: The main source of P&A's property data for industrial and personal property is through fieldwork by the appraisers and commercially/publicly available schedules developed on current costs. Data for performing utility appraisals is typically provided by the taxpayer or is otherwise available at various regulatory agencies (Texas Railroad Commission, Public Utilities Commission, FERC, etal.). 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.

CALENDAR OF EVENTS/DELIVERABLES TO CLIENT

As an appraisal contractor, the calendar of events and/or deliverables is largely dependent upon the client's needs and requirements. That said, P&A generally follows the property tax calendar as promulgated by the Property Tax Assistance Division (PTAD) whereas certain work activities must be accomplished by certain deadlines as specified by the Property Tax Code. P&A's contracts typically involve compensation being received from the client only after completion of certain events or deliverables. For example, the CAD may make quarterly payments per the following schedule:

- February, after completion of personal property field inspections;
- May, after completion and mailing of Notices of Appraised Value;
- August, after completion of Appraisal Review Board hearings; and
- November, after Certification of values.

The timetable regarding the sections described above is generally as follows:

- **Data Collection/Validation** occurs beginning in the Fall (October) prior to a tax year and continues into the Spring of that same tax year;
- **Valuation Analysis (Model Calibration)** occurs in the Spring (March - May) of a tax year and continues into the Summer (June - August) of that same tax year;
- **Individual Value Review Procedures** occurs concurrent, more or less, with Valuation Analysis; and
- **Performance Tests** occurs later in the tax year after certification of values.