



Midland Central Appraisal District

BIENNIAL REAPPRAISAL PLAN

FOR THE TAX YEARS

2019 AND 2020

BY

THE MIDLAND CENTRAL APPRAISAL DISTRICT

BOARD OF DIRECTORS

September 11, 2018

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Midland Central Appraisal District

2019 - 2020 Reappraisal Plan

EXECUTIVE SUMMARY

General Overview of Tax Code Requirement

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

The Written Plan

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

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

In 2005, Subsections (a) and (b), Section 25.18, Tax Code, were amended as follows:

- (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;
 - (2) Identifying and updating relevant characteristics of each property in the appraisal records;
 - (3) Defining market areas in the district;
 - (4) Identifying property characteristics that affect property value in each market area, including:

- (A) The location and market area of the property;
 - (B) Physical attributes of property, such as size, age, and condition;
 - (C) Legal and economic attributes; and
 - (D) Easements, covenants, leases, reservations, contracts, Declarations, special assessments, ordinances, or legal restrictions;
- (5) Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;
 - (6) Applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
 - (7) Reviewing the appraisal results to determine value.

Scope of Responsibilities

The Midland Central Appraisal District is responsible for establishing the fair market value of all property in the territorial boundaries of the district each year. Midland Central Appraisal District has prepared and published this reappraisal plan to provide the Board of Directors, taxing units, citizens and taxpayers with a better understanding of the District's responsibilities and reappraisal activities. This report has several parts: a general introduction and then several sections describing the proposed 2019-2020 reappraisal effort by the appraisal district with Midland Central Appraisal District (MCAD).

MCAD is a political subdivision of the State of Texas created effective January 1, 1980. The provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the appraisal district. A five member board of directors constitutes the appraisal district governing body. Five members are appointed by the taxing units within the boundaries of Midland County. The Chief Appraiser, appointed by the Board of Directors, is the chief administrator and chief executive officer of the appraisal district.

Midland Central Appraisal District is responsible for local property tax appraisal and exemption administration for all taxing units in the county. Each taxing unit, such as the county, city, school district, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services. Property appraisals are values established by the appraisal district to be used by the taxing units to calculate and allocate the annual tax burden.

The Texas Property Tax Code contains statutes that guide the administration of property taxes in Texas. For the most part, the tax code defines the scope of work required for local property tax appraisals. Appraisals are based on each property's worth or market value. MCAD also administers and determines eligibility for various types of property tax exemptions that are authorized by State and local governments; such as those for homeowners, the elderly, disabled persons, disabled veterans, and charitable or religious organizations.

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

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

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

The Texas Property Tax Code, under Sec. 25.18, requires each appraisal office to implement a plan to update appraised values for real property at least once every three years. ***Midland Central Appraisal District's current policy is to conduct a general reappraisal of real and business personal property value on a bi-annual basis.*** The district conducts an onsite field review of real property in a portion of the county annually as part of a reappraisal cycle. Business personal property is verified on an annual basis through various means.

The appraised value of real and business personal property is calculated using specific information and data about each property. Using various computer-assisted mass appraisal (CAMA) programs, and generally recognized appraisal methods and techniques, registered and trained appraisers compare the subject property information with the data for similar properties, and with recent market data. The district adheres to the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures, and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable. USPAP identifies a minimum set of standards that apply in all appraisal assignments.

Chapter 23 of the Texas Property Tax code contains statutes dealing with appraisal methods, procedures and statutory requirements. Section 23.01 of this chapter was amended in 1997 to specify that appraisal districts are required to comply with the mass appraisal standards of USPAP (Standard Six) when the appraised value of a property is established using mass appraisal techniques. In cases where the appraisal district contracts for professional valuation services, the contract that is entered into by each appraisal firm requires adherence to similar professional standards. Policies and procedures are available at the office of each firm contracting with the District.

Reappraisal and Non-Reappraisal Year Activities

1. Performance Analysis – the equalized values from the previous tax year are analyzed with ratio studies to determine the appraisal accuracy and appraisal uniformity overall and by market area within property reporting 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 tax year 2019 are detailed in the 2019 budget, as adopted by the board of directors. Existing appraisal practices, which are continued from year to year, are identified and methods utilized to keep these practices current are specified. Information Systems (IS) support is detailed with year specific functions identified and system upgrades scheduled. Existing maps and data requirements are specified and updates scheduled.
3. Planning and Organization – a calendar of key events with critical completion dates are prepared for each major work area. This calendar identifies all key events for appraisal, clerical, customer service, and information systems. A calendar is prepared for tax years 2019 and 2020. Production standards for field activities are calculated and incorporated in the planning and scheduling process.
4. Mass Appraisal System – Computer Assisted Mass Appraisal (CAMA). Revisions required are specified and scheduled with Information Systems (IS). All of the district's computer forms and IS procedures are reviewed and revised as required. The CAMA vendor makes programming adjustments as needed.
5. Data Collection Requirements – field and office procedures are reviewed and revised as required for data collection. Activities scheduled for each tax year include new construction, demolition, remodeling, re-inspection of problematic market areas, re-inspection of the universe of properties on a specific four year cycle, and field or office verification of sales data and property characteristics.
6. Pilot study by tax year – new and/or revised mass appraisal models are tested each tax year. Ratio studies, by market area, are conducted on proposed values each tax year. Proposed values on each category are tested for accuracy and reliability in randomly selected market areas.
7. Valuation by tax year – using market analysis of comparable sales and locally tested cost data, valuation models are specified and calibrated in compliance with 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.
8. The Mass Appraisal Report – each tax year the tax code required Mass Appraisal Report is prepared and certified by the Chief Appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The Mass Appraisal Report is completed in compliance with STANDARD RULE 6 – 8 of the *Uniform Standards of Professional Appraisal Practice*. The signed certification by the Chief Appraiser is compliant with STANDARD RULE 6 – 9 of *USPAP*. This written reappraisal plan is attached to the report by reference.
9. 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.

REVALUATION DECISION

The Midland Central Appraisal District by policy adopted by the Chief Appraiser and the Board of Directors reappraises all property in the district every two years. The reappraisal year is a complete appraisal of all properties in the district.

Each year new construction is added to the appraisal roll and adjustments are made for changes in individual property characteristics which affect appraisal value. In addition, sales data is reviewed each year, and neighborhood cost factors are modified as necessary in order to adjust property values to local market conditions and to maintain equalization.

In the year of reappraisal, all cost schedules and depreciation schedules are reviewed and adjusted to local market conditions. Calibration to district CAMA and support software is made, and changes to internal appraisal formula, procedures, and techniques are modified and adjusted as needed.

A four phase universal re-inspection of all properties types with the district's jurisdictional boundaries will be completed every four years.

TAX YEAR 2019 is a reappraisal year.

TAX YEAR 2020 is NOT a reappraisal year.

PERFORMANCE ANALYSIS

Midland Central Appraisal District's executive and managerial staff will perform statistical analysis for the tax years 2019 and 2020 to evaluate whether property is valued equitably and consistently within the defined market. Each of the state's property reporting categories are tested.

Ratio study analysis is the primary analytical methodology used to measure the performance of the mass appraisal valuation system. Ratio studies are conducted in compliance with the current *Standard on Ratio Studies* from the International Association of Assessing Officers.

Appraisal statistics of central tendency and dispersion as generated from sales ratios are reviewed for analysis of weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion for properties in each reporting category to measure the level of appraisal accuracy. These summary statistics provide the tools necessary for accurate market value analysis thus allowing for proper valuation model specification and calibration.

The mean ratio is calculated in each market area to indicate the level of appraisal accuracy by property reporting category. In 2019, the reappraisal year, this analysis is used to develop the starting point for establishing the level and accuracy of appraisal performance. In 2020, the non-reappraisal year this analysis is used to indicate the uniformity or equity of existing appraisals.

OVERVIEW OF DISTRICT OPERATIONS

2019 – 2020 Calendar of Key Events – See Appendix A

Proposed Budget for 2019:

Staffing and budget requirements for tax year 2019 are detailed in the 2019 appraisal district budget, as adopted by the board of directors. This reappraisal plan is adjusted to reflect the available staffing in tax year 2019 and the anticipated staffing for tax year 2020. Staffing will impact the cycle of real property re-inspection and personal property on-site review that can be accomplished in the 2019 – 2020 time period.

Existing appraisal practices, which are continued from year to year, are identified and methods utilized to keep these practices current are specified. In, the reappraisal year, real property appraisal depreciation tables and cost new tables are tested against verified sales data to ensure they represent current market data. The capitalization rate study by commercial real property type is updated from local current market income and sales data. The cap rate study is validated from local, regional, and national published information. Personal property density schedules are tested and analyzed based on rendition and prior year hearing documentation.

Personnel Resources:

The Office of the Chief Appraiser is primarily responsible for overall planning, organization, staffing, coordinating, and controlling all district operations. The district is organized into six primary departments: Administration, Support Services, Information Technology, Residential Appraisal, Commercial Appraisal, and the Collections. The Assistant Chief Appraiser heads the Residential Department and the Commercial Department. The Administration Department's function is to plan, organize, direct and control the business support functions related to human resources, budget, finance, purchasing, fixed assess, facilities maintenance and mail service.

The Support Services comprise support staff performing various functions including record maintenance, records management, customer service, public relations, vendor relations, contractor assistance, and various data processing functions. The Information Technology Department consists of support staff responsible for maintaining MCAD's Information Technology infrastructure. Additional responsibilities include data services and GIS/Mapping functions.

There are two appraisal departments which are responsible for the valuation of all real and business personal property. The Commercial Department has two divisions: Commercial Real Property and Business Personal Property Appraisal. The Residential Department includes Residential Appraisal and Rural Property/Agricultural Land Appraisal, and Exemptions.

Staffing resources are funded from the official adopted 2019 and 2020 budgets. Each employee is assigned to a specific appraisal department. A list of available appraisal personnel as of the writing of this report can be found in (Appendix A) of this report.

Staff Education and Training:

All appraisal district employees that perform appraisal work are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with The Texas Department of Licensing and Regulations (TDLR). This board is responsible for ensuring appraisers are professional, knowledgeable, competent and ethical. This is accomplished through

a statewide program of registration, education, experience, testing and certification for all property tax professionals for the purpose of promoting an equitable tax system.

Upon registration, appraisers registered with TDLR have up to five years to take nine appraisal courses and pass two additional exams in order to achieve certification as a Registered Professional Appraiser (RPA). During each subsequent five-year period after certification, appraisers must complete an additional 75 hours of continuing education. Failure to meet these minimum standards will result in the removal of the employee from an appraiser position. The TDLR also ensures that all registered appraisers comply with the requirements of the Property Taxation Professional Certification Act and adhere to the Property Tax Professional Code of Ethics.

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

Appraisal Responsibilities:

The appraisal staff is responsible for collecting and maintaining property characteristic data for classification, valuation, and other purposes. Accurate valuation of real and personal property by any method requires a physical description of personal property, land and building characteristics. This appraisal activity is responsible for administering, planning and coordinating all activities involving data collection and maintenance of all commercial, residential and personal property types which are located within the boundaries of Midland CAD. The data collection effort involves the field inspection of real and personal property accounts, as well as data entry of all data collected into the existing information system. The goal is to periodically field inspect residential and commercial properties in Midland County every four years. In homogeneous areas and areas where there is high degree of confidence with our existing data, a four year inspection cycle may not occur. The use of aerial photography, aerial imagery, and digital photography will be used to meet the goal. Ultimately, successful completion is dependent on the budgetary constraints of the district.

Information Systems Support:

All property data and valuation applications reside in the "GEMINI" program provided by software vendor Southwest Data Solutions Corp and includes: the appraisal district's CAMA (Computer Assisted Mass Appraisal) system and CAPP (Computer Assisted Personal Property Appraisal) system. These software systems reside on the district's servers. In addition individual appraisal departments utilize custom designed applications developed on MS Excel, MS Access, MS Word, and other third party software systems.

System software is regularly and automatically upgraded by the vendor. Computer generated forms are reviewed for revisions based on year and reappraisal status. In addition, software is modified and tested as needed to conform to mandated Legislative changes.

Existing Data and Maps:

The appraisal district has a geographic information system (GIS) that contains cadastral maps and includes various layers of data, including parcel lines, FEMA flood data, zoning, jurisdictional boundaries and aerial photography.

Midland Central Appraisal District is dependent upon the City of Midland to provide updated parcel line maintenance, zoning information, and improvement layer overlays for the cadastral

maps for both urban and rural areas of Midland County. The City of Midland updates the mapping data on a regular basis. In exchange, the district provides the city with requested property tax and appraisal information.

The district's mapping system utilizes ArcGIS software licensed by ESRI. The GIS mapping system provides assistance to the district's staff and the ARB for appraisal identification and valuation. The district also assists the general public with general mapping services.

In addition to GIS software systems, the district utilizes the process of incorporating oblique and orthogonal aerial imagery for property inspection, measurement, and verification. The appraisal district uses software and image service provided by the Pictometry International Corp. Periodic flyovers are scheduled each year in accordance with district contract agreements.

Comptroller: Property Value Study:

According to Chapter 5 of the Texas Property Tax Code and Section 403.302 of the Texas Government Code, the State Comptroller's Property Tax Assistance Division (PTAD) conducts a property value study (PVS) of each Texas school district within the boundaries of each county, once every two years (biennially). This study utilizes statistical analysis of sold properties (sale ratio studies) and appraisals of unsold properties (appraisal ratio studies) as a basis for assessment ratio reporting. For appraisal districts, the reported measurement criteria includes, median level of appraisal, coefficient of dispersion (COD), the percentage of properties within 10% of the median, the percentage of properties within 25% of the median, the price-related differential (PRD) for properties overall and by state category.

There are two independent school districts in Midland Appraisal District. A separate study is developed for each school district biennially. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the July following the January release date for the year of appraisal.

Results from the latest Property Value Studies will be reviewed and analyzed by the Chief Appraiser and district managers. Property category and or geographic area ratio study results will be reviewed and modifications will be added to the current and future work plans as deemed needed. The PVS schedule for MCAD is as follows:

There will be a PVS for MCAD in the year **2018** and again in **2020**.

Comptroller: Methods and Assistance Program (MAP) Review Audits

Section 5.102 of the Property Tax Code requires the Comptroller of Public Accounts to review county appraisal district (CAD) governance, taxpayer assistance, operating standards and appraisal standards, procedures and methodology once every two years (biennially).

Beginning in 2015, the Texas Comptroller's Property Tax Assistance Division (PTAD) conducted the first Methods and Assistance Program (MAP) review for Midland Central Appraisal District. The property Value Studies (PVS) are not conducted on the year in which the MAP reviews are performed. MCAD is in the MAP Tier Level 1. The schedule for MCAD is as follows:

There will be a MAP Audit for MCAD in the year **2019** and again in **2021**.

The biennial cycle will continue, subject to future legislative law changes.

PLANNING AND ORGANIZATION

Performance Objectives:

The primary tool to measure appraisal performance is a ratio study. The Midland Central Appraisal District has adopted the policies of the International Association of Assessing Officers (IAAO) regarding its ratio study standards and practices.

In addition the district strives to meet and or exceed the performance and equitability standards utilized by the Property Tax Department of the Texas State Comptroller's office.

Production Standards for Field Activities:

At the direction of the Chief Appraiser, each administrative and departmental manager is responsible for the production performance and progress of their subordinate staff members. Progress reports are maintained by managers for purposes of task review and modification.

MASS APPRAISAL SYSTEM

Computer Assisted Mass Appraisal (CAMA) system revisions are specified and scheduled with Information Systems. All computerized forms and IS procedures are reviewed and revised as required. The following details these procedures as it relates the 2019 and 2020 tax years:

Real Property Valuation:

Revisions to cost models, income models, and market models are specified, updated and tested each tax year.

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 tested for accuracy and uniformity using ratio study tools and compared with cost data from recognized industry leaders, such as the Marshall and Swift Corp.

Land tables are updated using current market data (sales) and then tested with ratio study tools. Value modifiers are developed for property categories by market area and tested on a pilot basis with ratio study tools. Income, expense, and occupancy data is updated in the income models for each market area and cap rate studies are completed using current sales data. The resulting models are tested using ratio study tools.

Personal Property Valuation:

Density schedules are updated using data received during the previous tax year from renditions and hearing documentation. Valuation procedures are reviewed and modified as needed and tested.

Noticing Process:

25.19-appraisal notice forms are reviewed and edited for updates and changes signed off on by appraisal district management. Updates include the latest copy of Comptrollers Taxpayers rights, remedies, and responsibilities.

Hearing Process:

Protest hearing scheduling for informal and formal Appraisal Review Board hearings is reviewed and updated as required. Standards of documentation are reviewed and amended as required. The appraisal district hearing documentation is reviewed and updated to reflect the current valuation process. Production of documentation is tested and compliance with House Bill 201 is insured.

DATA COLLECTION AND VALIDATION

Field and office procedures are reviewed and revised as required for data collection. The activities scheduled for each tax year including the discovery of new construction, demolition, remodeling, normal field inspections, and periodic re-inspection of the universe of district properties on a specific four year cycle, can be found in the MCAD's Work Schedule (see Appendix E).

New Construction / Demolition:

New construction field and office review procedures are reviewed and revised as required. Field production standards are established and procedures for monitoring tested. Source of building permits is confirmed and system input procedures are identified. Process of verifying demolition of improvements is specified. Job tasks and annual activities are projected and entered on the key events calendar and MCAD's Work Schedule.

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 finalized in the valuation modeling. This field activity when entered in the key events calendar must be monitored carefully.

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 coefficient of dispersion. Market areas that fail any or all of these tests are determined to be problematic. Field reviews are scheduled to verify and/or correct property characteristic data. Additional sales data is researched and verified. In the absence of adequate market data, neighborhood delineation is verified and neighborhood clusters are identified.

Re-inspection of the Universe of Properties:

The annual appraisal re-inspection requirements for tax year 2019 and 2020 are identified by property type and property classification in MCAD's Geographical Market Area's (Appendix F) and scheduled in MCAD's Work Schedule (Appendix E).

The International Association of Assessing Officers (IAAO), Standard on Mass Appraisal of Real Property specifies that the universe of properties should be re-inspected on a cycle of 4-6 years. In 2014, the Appraisal District began a new cycle to re-inspect all categories of real and personal properties in four years. Each of the four phases of the universal re-inspection program are outlined in MCAD's Geographical Market Area's (Appendix F) and scheduled in MCAD's Work Schedule (Appendix E). The re-inspection cycle will begin again in 2020

Verification of Sales Data and Property Characteristics:

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

property appraised in order that statistical analysis results will be valid. Data collection efforts will comprise of both field data collection and office verification. The appraisal district verifies sales data in a variety of different ways, including but not limited to: MLS information, sales request letters, internet data resources such as Loop-net, and taxpayer submitted data.

Great care is taken to maintain private and confidential status of sales data when such measures are required by law.

PILOT STUDY

Testing of New or Revised Mass Appraisal Methods:

New and or revised mass appraisal models are tested on randomly selected market areas. Uniformity testing will be conducted on appropriate property types.

Ratio Studies by Market Areas and Property Category:

These modeling tests (sales ratio studies) are conducted each tax year. Real and personal property and their associated sub-categories will be ratio tested to ensure district valuation models are designed and calibrated properly.

Test Accuracy and Reliability in Certain Market Areas:

Actual test results are compared with anticipated results and those models not performing satisfactorily are refined and retested. Results of new or revised mass appraisal techniques and models for all categories of property will be compared to market benchmarks such as valid adjusted sales data in order to ensure the accuracy and validity of the method or technique. The procedures used for model specification and model calibration are in compliance with Uniform Standards of Professional Appraisal Practice, STANDARD RULE 6.

VALUATION BY TAX YEAR

Valuation by tax year – using market analysis of comparable sales and locally tested cost data, market area specific income and expense data, 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. Performance standards are those as established by the IAAO Standard on Ratio Studies.

Property values in all market areas are updated each reappraisal year. Tax year 2019 is a reappraisal year.

Properties in selected market areas are updated in non-reappraisal years. Tax year 2020 is not a reappraisal year.

Valuation by Property Type

VACANT REAL PROPERTY

A separate estimate of fair market value shall be made for each parcel of non-agricultural land as if it were vacant. The sales data covering fair market sales of vacant non-agricultural land in all property classifications shall be secured from all available sources and shall be compiled, checked, and analyzed for use in the determination of non-agricultural land values and their units of comparison throughout the county. The Midland Central Appraisal District shall carefully consider all factors affecting the value of land (such as zoning, location, shape, size, topography, access to railroads, roads, present use, etc.) and will make appropriate adjustments when establishing final values.

The market approach, also known as the sales comparison approach, will be the primary valuation method used for the appraisal of vacant real property. All factors affecting the market value of lots and parcels shall be carefully considered in both the field inspection and final review. All vacant land shall be appraised at its typical or most probable use.

- **Model Specification:**

Department managers develop model specifications, base lot values, and value ratios for vacant land types. External and internal value influences are considered and used to adjust individual or area parcel values via a computer Land Adjustment Factors (LAF). The district's CAMA system contains land table files which are updated and maintained for each land type. To the extent practical, land value computations shall be made in accordance with four categories, as follows:

1. City and Urban Residential - square foot or lot values
2. Rural residential - per acre or lot values
3. Commercial - square foot or acreage values
4. Industrial - square foot or acreage values

- **Model Calibrations:**

Land Valuation Models will be calibrated in 2019 and 2020. Department managers will review sales data and value influence factors in order to modify and adjust the base unit value tables of the Land Valuation Models. Land code schedules and/or Land Adjustment Factors (LAF) will be reviewed and changed as needed to reflect market value considerations, or external and internal value influences on land parcels.

Other Value Techniques:

In addition, the district will consider and utilize the land valuation methods of abstraction and allocation when appropriate in order to test the validity and accuracy of land value schedules or when lack of information prevents the use of the sales comparison method.

IMPROVED PROPERTY

In arriving at the value of each parcel of improved property, the Midland Central Appraisal District will consider all three approaches to value where applicable. The District shall make a careful analysis of the replacement cost of newly constructed buildings by using the latest editions of the Marshall & Swift National Cost Manual or by cost data obtained from local contractors. Local sales data will be used to arrive at appropriate local market adjustment factors required to calibrate the cost system. The Appraisal District will employ the age-life method of depreciation using the observed condition of the property and total life expectancies based on recognized standards.

RESIDENTIAL PROPERTY

Scope of Work:

The Residential Valuation Department is responsible for developing equal and uniform market values for all residential improved and vacant property for ad valorem purposes located inside the jurisdictional boundaries of the appraisal district. The district staff employees which will be involved in the valuation of residential properties include the Chief Appraiser, Assistant Chief Appraiser, Residential Department manager, residential appraisers, and any other staff member deemed appropriate by the Chief Appraiser.

Highest and Best Use Analysis:

The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum potential. The residential appraisal staff will conduct a highest and best use analysis of residential property to ensure the current use of property supports the highest present value as of the date of the appraisal. The highest and best use of residential property is normally its current use. Residential Valuation undertakes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. Adjustments to the property value is made via changes in land classification or adjustments factors; improvement adjustment factors or classification code; or a combination of land and improvement adjustments are made in order to properly appraise the subject property at market value.

Area Analysis:

Data on regional economic forces affecting the valuation of real property values will be collected from various public, professional, and private sources by the Residential Department Manager and appraisal staff. This information is used in neighborhood analysis and calibration of economic factors.

Neighborhood and Market Analysis:

Properties of common traits are grouped into geographic groupings or "neighborhoods" which share similar and uniform physical, economic, governmental and social forces. The neighborhoods are smaller, manageable subsets of the universe of properties. Each residential neighborhood is assigned to a neighborhood group (NBF) based on observable aspects of homogeneity between neighborhoods. Neighborhood analysis will be performed to examine how these forces influence property values. Residential valuation and neighborhood analysis is conducted on each Independent School District (ISD) in the county. Factors of the neighborhood including location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, square footage of living area, and story height will be examined to determine if any changes should be made to its defined boundaries in a process known as "delineation". Delineation may result in changing the physical boundary lines of the neighborhood and or the statistical separation (stratification) of neighborhoods based on attribute analysis. There are in excess of 75 residential valuation neighborhoods in the district. Neighborhoods are inspected and delineated based on observable aspects of homogeneity.

Field Inspection Procedures:

Appraisers of the Midland Central Appraisal District shall inspect the exterior of each structure. Interior data shall be obtained through personal interviews when possible. Construction features, characteristics, appendages, accessory buildings or irregularities for each property shall be recorded on field worksheets or portable computers. Grade classification shall be distinctly considered and state appraisal classification guidelines followed for each building. Periodic inspections of work of all appraisal personnel shall be made by the residential department manager in the grading (or classifying) of dwellings to insure correct, uniform, and consistent grade classification use.

A perimeter sketch of each residential building will be drawn on the field worksheet or in portable computer and all necessary dimensions and identification symbols shall be placed on this sketch. Appendages such as attached garages, porches, etc. shall be carefully shown with dimensions and labeled accordingly. All other pertinent appraisal information will be gathered and recorded.

Residential Inspection Specifications:

Staff appraisers will be assigned to designated areas in Midland County for the purpose of residential inspection. Each appraiser will be given the responsibility to visually and/or physically inspect each commercial property within their assigned area.

The appraiser will conduct on-site slow-pass vehicular inspection of the residential property when passive inspections are inadequate. Inspections will include both passive and active inspection activities depending on the property requirements. Passive inspection is performed by on-site visual inspection and/or by utilizing oblique aerial images, (i.e. Pictometry). Active inspection includes either physical observational walk-through; on-site measurement; on-site counting; person-to-person interviews with owners, managers, or agents of the property; or a combination thereof.

The Residential Department will be given a four year period to complete a universal inspection of residential property. The Assistant Chief Appraiser, Residential Manager, and Commercial Manager will coordinate efforts for the inspection. Quarterly progress reports will be required from each appraiser. These areas are identified in MCAD's Geographical Market Area's (Appendix F) and scheduled in MCAD's Work Schedule (Appendix E).

Cost Schedule Development and Updates:

All residential parcels in the district are valued from identical cost schedules using a comparative unit method. The district will update and maintain the cost tables and schedules in the computerized mass appraisal analysis (CAMA) program. The district's residential cost schedules are customized to fit Midland County's local residential building and labor market. As part of the reappraisal process, the cost schedules will be reviewed to ensure accuracy and that they are within a range of plus or minus 10% from nationally recognized cost schedules.

An extensive review and revision of the residential cost schedule will be performed in the reappraisal year. District staff will review newly constructed sold properties at various levels of quality of construction in Midland County. The property data characteristics of these properties will be verified and photographed as samples. From these samples, a representative subset will be selected for use in the MCAD cost system schedule update. MCAD dwelling costs will be compared against current cost estimates of Marshall Swift Valuation Service, a nationally recognized cost estimator. The district will correlate the quality of construction factors from MCAD and Marshall Swift.

The results of this comparison will be analyzed using statistical measures, including stratification by quality and review of estimated building costs plus land to sales prices. As a result of this analysis, a new regional multiplier will be developed and used in the district's cost process. PC spreadsheet applications will be created to atypical and unique appraisal situations.

Sales Information Updates:

A sales file for the storage of sales data for improved properties is maintained for residential real property. Residential real property sales are collected from a variety of sources, including: district questionnaires letters sent to buyers and sellers, field discovery, protest hearings, Regional MLS, various sale vendors, builders, and realtors. A system of type, source, validity and verification codes has been established to ensure accuracy and determine relevant market sale price information. The effect of time influence on price may be considered via paired sales analysis or forecast trending.

Statistical Analysis:

Statistical analysis will be performed to evaluate whether values are equitable and consistent with values from the market. Ratio studies will be conducted on each of the more than 75 residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy--level and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios will be examined and analyzed for each stratified neighborhood within an ISD. Summary statistics utilized will including, but not be limited to, the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion. These statistical analyses will be used to the weighted mean for individual properties within a neighborhood, and compare neighborhood-weighted means to indicate the general level of appraised value between comparable neighborhoods. Uniformity within and between stratified neighborhoods will also be examined using the available analysis tools within the district's CAMA system.

The district will also perform sales ratio analysis for each neighborhood. In the first phase: neighborhood ratio studies will be compared to the recent sales prices of neighborhood properties to the appraised values of the sold properties. In the second phase: the ratio studies will be used to judge the level of appraised value and uniformity of the sales. In the final phase: decisions to change the designated valuation parameters will be based on the statistical outcomes of the ratio analyses. Parameters will be adjusted as needed to ensure each overall neighborhood valuation is at an acceptable level.

Residential Cost Model:

The Midland Central Appraisal District's primary residential valuation model is a hybrid cost-sales comparison approach technique. Neighborhood adjustment factors (NBF), functional obsolescence factors (FD), and economic obsolescence factors (ED) are used to modify base cost estimates and to ensure that estimated values are consistent with the market. This type of approach accounts for internal and external value influences not specified in a pure cost model. The following equation denotes the hybrid model used:

$$MV = [(RCN - D) (1 + FD) (1 + ED) (NBF + 1)] + LV$$

Whereby; the market value (MV) equals the replacement cost new (RCN) less depreciation (D) multiplied by the functional (FD) and economic (ED) adjustment factors, the result of which is multiplied by the neighborhood adjustment factor (NBF) thus composing the final improvement value, where by the land value (LV) is added to complete the total property value.

Once all adjustments factors are input into the district's CAMA system, recalculation of property valuation is performed either on individual accounts or on a mass basis in order generate final valuation.

- **Model Specification:** New specifications for modified cost valuation model will be made in the reappraisal year. Model specification will involve the input of new or updated base values, rates, tables, and adjustments factors as required by the CAMA software system and other MCAD residential valuation programs or systems. Details of which are described in previous sections of this report. System programming and software structure

may be changed to more accurately reflect standardized appraisal valuation techniques or to comply with legal and professional specifications.

- **Model Calibration:** Residential Valuation Models will be calibrated by adjusting the mass appraisal formulas, tables and schedules to reflect current local market conditions as described above. Ratio studies will be used to compare recent sales prices of properties appropriately adjusted for the effects of time within delineated neighborhoods. Cost-to-sale ratios will be compared to the appraisal-to-sale ratios in order to determine the market adjustment factor for each neighborhood. Monthly market-trend factors will be developed and a second set of ratio studies will be generated to compare recent sale prices with the proposed appraised values for these sold properties. From this set of ratio studies, the district will update NBF factors of the delineated neighborhoods as deemed appropriate to reflect market value.

Application of Income Approach:

Residential lease information is collected from various sources including; individual property owners, managers, and regional multiple listing service. This information is stored in the district's CAMA software system.

The income approach to value is generally not considered the primary valuation technique for residential property. MCAD utilizes the income valuation techniques including direct capitalization, discounted cash flow analysis, and gross rent multipliers for specialized residential income producing property and as a check of other appraisal valuation methods where deemed appropriate.

SPECIAL INVENTORY RESIDENTIAL PROPERTY

At the request of the Chief Appraiser, owners of residential inventory property are required each year to render their property between January 1st and April 15th. A separate rendition is will be required for each subdivision or group of contiguous properties the owner possesses. In order to qualify as inventory valuation the property must meet the following test: (1) it is a residential property; (2) it hasn't ever been occupied as a residence; (3) it hasn't been leased, rented, or otherwise used to produce income since the beginning of the year; and (4) it has been held for sale since the beginning of the year.

In addition the owner must indicate the description of each property, including the appraisal district account number for each property, the individual property legal description, improvement area, percent complete on January 1, and the asking price for the property. This information is submitted in list form.

The Residential Department of the appraisal district will classify the inventory property and appraise it as inventory under Section 23.12 of the Property Tax Code. The valuation of residential inventory will be the price for which it would sell as a unit to a purchaser, who would continue the business, provided that the residential real property remains unoccupied, is not leased or rented, and produces no income.

This district will analyze and review the information submitted by the owner or agent. Comparisons will be reviewed of other rendered inventory property and appraisal techniques including sales comparison analysis, matched-paired sales analysis, or cost-of-development method as deemed appropriate by the appraiser. The conclusion of the analysis will result in the development of factors which will be applied to residential inventory parcels in the district's CAMA system.

COMMERCIAL REAL PROPERTY

Scope of Work:

Commercial Mass Appraisal Valuation (CMAV) is the process of developing equal and uniform market values for all commercial improved and vacant property for ad valorem purposes located inside the jurisdictional boundaries of the appraisal district. The members of district staff which will be involved in the valuation of multifamily income producing properties include: the Appraisal Director, commercial staff appraisers, and any other staff member deemed appropriate by the Chief Appraiser.

The fee simple interest of commercial real property is appraised as required by state statute. The effect of easements, restrictions, encumbrances, leases, contracts or special assessments are considered on an individual basis, as is the appraisement of any non-exempt taxable fractional interests in real property (i.e. certain multi-family housing projects). Fractional interests or partial holdings of real property are appraised in fee simple for the whole property and divided based on their pro-rata interests.

The commercial valuation function is divided into five improved property valuation groups and a vacant commercial land group. Summarized as:

- Multi-family (Apartments)
- Office
- Retail
- Warehouse
- Special Use Commercial: (i.e. hotels, hospitals and, nursing homes).

Highest and Best Use Analysis:

The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum potential. The commercial appraisal staff will conduct a highest and best use analysis of commercial property to ensure the current use of property supports the highest present value as of the date of the appraisal. The highest and best use of commercial property is normally its current use. Commercial Valuation undertakes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. Adjustments to the property value is made via changes in land classification or adjustments factors; improvement adjustment factors or classification code; or a combination of land and improvement adjustments are made in order to properly appraise the subject property at market value.

Highest and best use analysis is used to confirm the accuracy of the market value estimate which approximates market price under the following assumptions: (1) no coercion of undue influence over the buyer or seller in an attempt to force the purchase or sale, (2) well-informed buyers and sellers acting in their own best interests, (3) a reasonable time for the transaction to take place, and (4) payment in cash or its equivalent.

Area Analysis:

Data on regional economic forces affecting the valuation of real commercial property values will be collected from various public, professional, and private sources by the Commercial Department Manager and appraisal staff. This information is used in neighborhood analysis and calibration of economic factors.

Neighborhood Analysis:

Properties of common traits are grouped into geographic groupings or “neighborhoods” which share similar and uniform physical, economic, governmental and social forces. The neighborhoods are smaller, manageable subsets of the universe of properties. Each commercial neighborhood is assigned to a neighborhood group (NBF) based on observable aspects of homogeneity between neighborhoods. Neighborhood analysis will be performed to examine how these forces influence property values.

Market Analysis:

Market analysis relates directly to market forces affecting supply and demand. This study involves the relationships between social, economic, environmental, governmental, and site conditions. Current market activity including sales of commercial properties, new construction, new leases, lease rates, absorption rates, vacancies, allowable expenses (inclusive of replacement reserves), expense ratio trends, and capitalization rate studies will be analyzed. Local consultation with area real estate professionals will be utilized to lend support to the various assumptions utilized in the valuation of real estate.

Categorization:

In addition, commercial properties are also grouped into like-use categories which reflect similar property use. Use type categories are further divided into sub-categories based on quality, function, and economic factors such as percentage of occupancy, amenities, etc., as determined by commercial appraisal staff. These rankings are recording within the valuation record as an alpha designation of type "A", "B", "C", and "D." Additional sub-categorization may be utilized by the commercial appraisal department as deemed necessary to maintain consistency and uniformity in property use classification.

Field Inspection Procedures:

Appraisers of the Midland Central Appraisal District shall inspect the exterior of each structure. Interior data shall be obtained through on-site inspection or personal interviews when possible. Construction features, characteristics, appendages, accessory buildings or irregularities for each property shall be recorded on field worksheets or portable computers. Grade classification shall be distinctly considered and state appraisal classification guidelines followed for each commercial building. Periodic inspections of work of all appraisal personnel shall be made by the commercial department manager in the grading (or classifying) of structures to insure correct, uniform, and consistent grade classification use.

A perimeter sketch of each commercial building will be drawn on the field worksheet or in portable computer and all necessary dimensions and identification symbols shall be placed on this sketch. Appendages such as covered porches, parking garages, etc. shall be carefully shown with dimensions and labeled accordingly. All other pertinent appraisal information will gathered and recorded.

Commercial Inspection Specifications:

Staff appraisers will be assigned to designated areas in Midland County for the purpose of commercial property inspection. Each appraiser will be given the responsibility to visually and/or physically inspect each commercial property within their assigned area.

The appraiser will conduct "walk-through" inspections for commercial business property when passive inspections are inadequate; such as office buildings and or enclosed shopping centers. Inspections will include both passive and active inspection activities depending on the property requirements. Passive inspection is performed by on-site visual inspection and/or by utilizing oblique aerial images, (i.e. Pictometry). Active inspection includes either physical observational walk-through; on-site measurement; on-site counting; person-to-person interviews with owners, managers, or agents of the property; or a combination thereof.

The Commercial Department will be given a four year period to complete a universal inspection of commercial property. The Assistant Chief Appraiser and Commercial Manager will coordinate efforts for the inspection. Quarterly progress reports will be required from each appraiser. These areas are identified in MCAD's Geographical Market Area's (Appendix F) and scheduled in MCAD's Work Schedule (Appendix E).

Data Collection and Validation:

Specific market data is gathered and analyzed including sales of commercial properties, new construction and other permit activity, new leases, lease rates, absorption rates, vacancies, typical property expenses (inclusive of replacement reserves, if recognized by the market), expense ratio trends, and capitalization rate indicators. This data is used to determine market ranges in price, operating costs and investment return expectations.

In addition, the commercial appraisers includes verified sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.). Other data used by these appraisers includes actual income and expense data (typically obtained through the hearings process), actual contract rental data, leasing information (commissions, tenant finish, length of

terms, etc.), actual construction cost data, and in-house surveys. In addition to the actual data obtained from specific properties, market data publications will be reviewed to provide additional support for market trends such as the Chamber of Commerce for market data on apartments, retail, office, and industrial properties.

Other data sources include the State Comptroller Hotel /Motel Report, Institute of Real Estate Management (IREM) rental property surveys, and web sites from real estate professionals. Trade publications such as the Korpacz Survey and the Appraisal Institute's (AI) economic indicators will be used for capitalization rates, typical holding periods for real estate investments, interest rates and other pertinent real estate criteria.

In terms of commercial sales data, MCAD receives a copy of the deeds recorded in Midland County that convey commercially classed properties. The deeds involving a change in commercial ownership will be entered into the sales information database and researched to obtain the pertinent sale information. For those properties involved in a transfer of commercial ownership, a sale file is maintained which begins the research and verification process. The initial step in sales verification involves a computer-generated questionnaire that is mailed to the transaction grantee. If a questionnaire is answered and returned, the documented responses are recorded into the computerized sales database system. If no information is provided, verification will then be attempted via phone calls to both parties. If the sales information is still not obtained, other sources will be contacted such as the brokers involved in the sale, property managers or commercial vendors. In other instances sales verification is obtained from local appraisers or others that may have the desired information. Finally, closing statements are often provided during the hearings process. The actual closing statement is the most reliable and preferred method of sales verification. After the sales data has been keyed into the database, the data will be reviewed to maintain quality control. This sales information will be used for informal and formal valuation reviews.

The Cost Approach:

Commercial Application of Cost Approach:

The cost approach to value will be applied to all improved real property utilizing the comparative unit method. The district will utilize national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models will be developed and updated based on the Marshall Swift Valuation Service. Cost models will include the derivation of replacement cost new (RCN) of all improvements which will include comparative base rates, per unit adjustments and lump sum adjustments. The sales comparison approach will be used in the valuation of the underlying land value. Time and location modifiers will be used as necessary to adjust the cost data in order to reflect market condition changes in costs over time. Because a national cost service is used as a basis for the cost models, location adjustment modifiers will be used to adjust these base costs specifically for Midland County. The national cost service provides these modifiers. Resulting base values will be input into the district's CAMA system.

Depreciation schedules will be developed and updated based on typical factors for each property type at that specific age. Depreciation schedules will be implemented for each major class of commercial property by economic life categories. Schedules will be updated for improvements with 15, 20, 30, 40, 50, and 70 year expected life. These schedules will be tested to ensure they are reflective of current market conditions. The actual and effective ages of improvements will be noted in CAMA.

Effective age estimates will be updated based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and its competitive position in the marketplace. Effective age estimates will be based on personal inspection and analysis by staff commercial appraisers.

Market adjustment factors such as economic and or functional obsolescence will be applied as warranted. A depreciation calculation override will be used if the condition or effective age of a property varies from normal market conditions.

Cost Model Description:

The Midland Central Appraisal District's commercial cost valuation model is a hybrid cost-sales comparison approach technique. Adjustment factors including: Neighborhood adjustment factors (NBF), functional obsolescence factors (FD), and economic obsolescence factors (ED) are used to modify base cost estimates and to ensure that estimated values are consistent with the market. This type of approach accounts for internal and external value influences not specified in a pure cost model. The following equation denotes the hybrid model used:

$$MV = [(RCN - D) (1 + FD) (1 + ED) (NBF + 1)] + LV$$

Whereby; the market value (MV) equals the replacement cost new (RCN) less depreciation (D) multiplied by the functional (FD) and economic (ED) adjustment factors, the result of which is multiplied by the neighborhood adjustment factor (NBF) thus composing the final improvement value, where by the land value (LV) is added to complete the total property value.

Once all adjustments factors are input into the district's CAMA system, recalculation of property valuation is performed either on individual accounts or on a mass basis in order generate final valuation.

The Income Approach:

Description: The income approach to value will be applied to commercial real properties which are typically viewed by market participants as "income producing", and for which the income methodology is considered a leading value indicator.

Application of Income Approach:

An estimation of market rent on a per unit basis will be made. This value will be derived primarily from actual rent data furnished by property owners and from local market study publications. This per unit rental rate will be multiplied by the number of units resulting in an estimate of potential gross rent. Next, projected vacancy and collection loss allowance will be estimated from actual data furnished by property owners and district market surveys. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance will then be subtracted from the potential gross rent estimate to yield an effective gross rent.

A secondary income or service income will be calculated as a percentage of stabilized effective gross rent and or actual data supplied by property owners and agents. Secondary income represents parking income, escalations, reimbursements, and other miscellaneous income generated by the operations of real property. The secondary income estimate is derived from actual data collected and available market information and will be added to the effective gross rent (EGR) to arrive at an effective gross income (EGI).

Allowable expenses and expense ratio estimates will be based on a study of the local market, with the assumption of prudent management. An allowance for non-recoverable expenses such as leasing costs and tenant improvements will be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios will be developed for different types of commercial property based on use. Actual expense data for the subject property will be used when available for analysis and confirmation of model estimates. Expense ratios will also be implemented as needed based on the type of commercial property.

Allowable expenses will be considered for the replacement of short-lived items (such as roof or floor coverings, air conditioning or major mechanical equipment or appliances) requiring expenditures of large lump sums. These capital expenditures, known as replacement reserves, will be analyzed for consistency and adjusted. They may be applied on an annualized basis as stabilized expenses when warranted.

Expenses (inclusive of non-recoverable expenses and replacement reserves) will be subtracted from the effective gross income yields to arrive at an estimate of net operating income (NOI). Rates and multipliers, such as overall capitalization rates, discount rates, and income multipliers, will be used to convert income into an estimate of market value. Each of these is used in specific applications. Rates and multipliers will vary between property types, as well as by location, quality, condition, design, age, and other factors resulting from a thorough analysis of the market. All commercial properties being valued via the income approach are internally coding in the district's CAMA software system.

Capitalization Analysis and Techniques:

Capitalization analysis is used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analyses, can be derived from the market.

Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. In addition, overall capitalization rates can be derived from the built-up method (band-of-investment). This method relates to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications. The following income capitalization techniques will be used to value commercial property as appropriate by type:

- **Direct Capitalization:** The primary yield capitalization method used for the valuation of commercial property by the district is Direct Capitalization. Direct capitalization income valuations are calculated outside the CAMA system either in MS Excel spreadsheets or MS Access databases. These valuation amounts are entered into the CAMA system as staff value change overrides designated by the internal code "D" in the computer valuation screen of the CAMA system.

The direct capitalization income valuation model is based on the formula:

$$MV = NOI \div TACR$$

Whereby; the market value (MV) equals to the net operating income (NOI) divided by the tax adjusted capitalization rate (TACR). Income parameters are derived from procedures as described above. The district utilizes PC based software systems to assist in these calculations.

- **Discounted Cash Flow Analysis:** Discount Cash Flow analysis. Discounted Cash Flow analysis is defined as "a set of procedures in which an appraiser specifies the quantity, variability, timing, and duration of periodic income, as well as the quantity and timing of reversions and discounts each to its present value at a specified yield rate." This technique takes the future benefits or "incomes" and converts these benefits into an indication of present value by discounting each future benefit at an appropriate yield rate. The district utilizes PC based software systems to assist in these calculations.

The formula is expressed as follows:

$$PV = \frac{CF_1}{1+Y} + \frac{CF_2}{(1+Y)^2} + \frac{CF_3}{(1+Y)^3} + \dots + \frac{CF_N}{(1+Y)^N}$$

Where (PV) represents “present value”; (CF) represents “cash flow”; (Y) represents “yield rate.”

- **Rent Loss Direct Capitalization:** This technique will be applied to specific properties with vacancy problems which are considered short term in nature, and will be used when the appraiser concludes other yield capitalization methods are not appropriate.
- The rent loss is calculated by multiplying the rental rate by the percent difference of the property’s stabilized occupancy and its actual occupancy. Build out allowances (for first generation space or retrofit/second generation space as appropriate) and leasing expenses are added to the rent loss estimate. The total adjusted loss from these real property operations is discounted using an acceptable risk rate. The discounted value (inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions) becomes the rent loss concession and is deducted from the value indication of the property at stabilized occupancy. The district utilizes PC based software systems to assist in these calculations.
- **Gross Income Multipliers:** The Gross Income Multiplier (GIM) method shows the ratio of the commercial property sales price to its gross income and compensates for additional income generated by the property. The GIM is calculated by dividing the actual sales price of property by their reported gross income. The derived average is applied to the property being appraised by multiplying the GIM by the property’s gross income in order to arrive at an estimation of the subject market value.

Care is taken by the commercial department’s management and appraisal staff to choose the appropriate income value technique for the type of property being appraised and in applying these methods in a uniform and equal way within the particular class and subclasses of commercial property being evaluated on a mass basis.

The Market Approach:

The sales comparison (market) approach is used for estimating commercial land value and for comparing sales of similarly improved properties to other commercial parcels on the appraisal roll. Pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year in order to obtain relevant information that can be used in the valuation process.

Sales of similarly improved properties are used for developing depreciation schedules in the Cost Approach, rates and multipliers used in the Income Approach, and as a direct comparison in the Sales Comparison Approach. Improved sales are also used in ratio studies allowing the appraisal staff to judge the level and uniformity of the appraised values.

- **Model Specification:** New specifications for cost, income, and market valuation models will be made in the reappraisal year. Model specification will involve the input of new or

updated base values, rates, tables, and adjustments factors as required by the CAMA software system and other MCAD commercial valuation programs or systems. Details of which are described in previous sections of this report. System programming and software structure may be changed to more accurately reflect standardized appraisal valuation techniques or to comply with legal and professional specifications.

- **Model Calibration:** Income Valuation Models will be calibrated and finalized by adjusting the mass appraisal formulas, tables and schedules to reflect current local market conditions as described above. Once the models have undergone the specification process, adjustments will be made to reflect new construction procedures, materials and/or costs, which can vary on non-reappraisal years. The schedules and models are summarized in the District Appraisal Manual. This manual is provided to appraisers and is made available to the public in an easy to understand format.

MULTIFAMILY INCOME PRODUCING PROPERTY

Scope of Work:

All income producing multifamily residential property shall be inspected and appraisal at market value. All building features, components, or characteristics as outlined in the commercial real appraisal section of this report shall be identified, measured and listed. Improvement unique to this class of property including: all paved drives, swimming pools, patios, tennis courts shall be identified, measured, listed and appraised. The members of district staff which will be involved in the valuation of multifamily income producing properties include: the Appraisal Director, commercial staff appraisers, and any other staff member deemed appropriate by the Chief Appraiser.

Data Collection and Validation:

The verified sales prices of vacant land and improved multifamily properties and other pertinent data shall be collected and maintained. Income parameters and data such as capitalization rates, income multipliers, equity dividend rates, marketing periods shall be identified, calculated, collected, and stored.

Other data collected and used in the valuation of multifamily properties includes actual income and expense data, actual contract rental data, leasing information (commissions, tenant finish, length of terms, etc.), actual construction cost data, and in-house surveys. In addition to the actual data obtained from specific properties, market data publications will be reviewed to provide additional support for market trends. Additionally, State Comptroller information, Institute of Real Estate Management (IREM) rental property surveys, and web sites from real estate professionals will be reviewed. Trade publications such as the Korpacz Survey and the Appraisal Institute's (AI) economic indicators will be used for capitalization rates, typical holding periods for real estate investments, interest rates and other pertinent real estate criteria.

Analysis and Valuation Procedures:

The analysis of highest and best use, area analysis, neighborhood analysis, market analysis, categorization procedure, field inspection technique, drive out procedure, and methods of valuation for multifamily income producing properties will be the same as outlined and described in the commercial property section of this report.

The income approach, cost approach, and sales comparison approach will be considered in arriving at the final property value when sufficient data is available. Income valuation models for multi-family properties will reflect multifamily type unit-of-comparison criteria unique to this property type. Income and expense data is often expressed in terms of "per units". Data collected and utilized will express recognized market accepted units of comparison.

The district will utilize the district's CAMA system and PC based software systems to assist in the collection of data and valuation of multifamily income producing properties.

INDUSTRIAL REAL PROPERTY

The Midland Central Appraisal District contracts with the firm Pritchard and Abbott Inc. for the valuation of commercial industrial real and personal property. The income approach, cost approach, and sales comparison approach is considered by the contractor in arriving at the final property value when sufficient data is available.

Pritchard and Abbott has prepared a separate and distinct reappraisal plan and mass valuation report pertaining to industrial property on behalf of the appraisal district for the current tax year. The mass industrial valuation report is made in accordance to current USPAP requirements and

standards. The Appraisal District has included a copy of the Pritchard and Abbott's 2019-2020 reappraisal plan in this report (Appendix D).

UTILITIES

The Midland Central Appraisal District contracts with the firm Pritchard and Abbott Inc. for the valuation of utility real and personal property. The income approach, cost approach, and sales comparison approach is considered by the contractor in arriving at the final property value when sufficient data is available.

Pritchard and Abbott has prepared a separate and distinct reappraisal plan and mass valuation report pertaining to utility property on behalf of the appraisal district for the current tax year. The mass utility valuation report is made in accordance to current USPAP requirements and standards. The Appraisal District has included a copy of the Pritchard and Abbott's 2019-2020 reappraisal plan in this report (Appendix D).

MINERAL PROPERTIES

The Midland Central Appraisal District contracts with the firm Pritchard and Abbott Inc. for the valuation of mineral (oil and gas) real and personal property. The income approach, cost approach, and sales comparison approach is considered by the contractor in arriving at the final property value when sufficient data is available.

Pritchard and Abbott has prepared a separate and distinct reappraisal plan and mass valuation report pertaining to mineral property on behalf of the appraisal district for the current tax year. The mass mineral valuation report is made in accordance to current USPAP requirements and standards. The Appraisal District has included a copy of the Pritchard and Abbott's 2019-2020 reappraisal plan in this report (Appendix D).

SPECIAL VALUATION PROPERTIES

AGRICULTURAL USE PROPERTIES:

Scope of Work:

The Residential-Rural Land Valuation Department is responsible for developing equal and uniform market values for all agricultural use property for ad valorem purposes located inside the jurisdictional boundaries of the appraisal district. The district staff members which will be involved in the valuation of *agricultural* use properties include the Chief Appraiser, Assistant Chief Appraiser, Appraisal Operations Manager, senior rural appraisers, and any other staff member deemed appropriate by the Chief Appraiser.

Data Collection and Validation:

The district will obtain information regarding agricultural use land from state and federal agencies as available. In addition, information will be collected from agricultural professionals, renditions, trade journals and publications, and other sources considered reliable. Recognized organizational sources for information include:

- **Agricultural Advisory Board:** The Appraisal District's agricultural advisory committee will advise the Chief Appraiser and staff on the appraisal and use of agricultural land. This committee is composed at three members which are appointed by the Board of Directors. The advisory committee will meet at least once per year and serves two-year staggered terms.

- **The Texas Agricultural Extension Service:** The Residential-Rural Land appraisal department will consult with the local county extension agents concerning information on crop types, typical yields, production practices, general price, and lease and production cost information.
- **Agricultural Stabilization and Conservation Service (ASCS):**
- **Soil Conservation Service (SCS):**
- **Texas Agricultural Statistical Service:** The Residential-Rural Land appraisal department will consult publications concerning information about Midland County.
- **Farmers Home Administration (Fm HA):**
- **Production Credit Association:**
- **Universities and Colleges:**
- **Property Tax Division of the Texas Comptroller:**

Analysis and Valuation Procedures:

The Appraisal District's Residential-Rural Land Valuation Department will utilize a mass appraisal valuation system which is comprised of five procedural steps: These procedural steps will be used by the appraisal district in both of model specification and model calibration of agricultural use land valuation.

1. Development of the Land Classification System:

The district's appraisal of agricultural use properties includes seven broad classes of property which include:

1. Irrigated Cropland
2. Dryland Cropland
3. Orchard
4. Improved Pastureland
5. Native Pastureland
6. Waste Land
7. Other Land.

The district's land classes are based on the most common land use types. Major land use types are further divided into sub-classes according to relevant influence factors which include but are not limited to: soil type, soil capacity, irrigation levels, and topography.

2. Estimate the net-to-land per acre for each class and sub-class:

This annual income will be based upon the five-year period preceding the year before the appraisal. The department coordinator will consider and utilize the following methods in determining net-to-land values when appropriate.

- Cash Lease Method:
- Share Lease Method:
- Unavailable Leases-Alternative Method:

These valuation methods are described in detail in the Texas State Comptroller's publication: "Guidelines for the Appraisal of Agricultural Land" April 1990.

3. Divide the class' net-to-land by the year's capitalization rate:

This is done to obtain the value per acre in each class. These values will form the basis for the productivity appraisal schedule. The State Comptroller's office each year provides the capitalization rate to be used by appraisal district.

4. Classify all qualified agricultural land according to the land classification system.

5. Using the CAMA system, the district will apply the developed schedules to calculate the productivity value of individual land parcels.

Statistical Analysis:

Summary statistics including, but not limited to, the median, weighted mean, and standard deviation will provide the rural property department with an analytical tool by which to determine both the level and uniformity of appraised market valuation of agricultural land.

Agricultural Application Process:

The State Property Tax Code (PTC) requires an application be filed before land is considered for agricultural valuation under PTC exemption provisions 1-d and 1-d-1. The deadline for filing a timely application is before May 1. Late agricultural applications may be filed up to the time the appraisal roll is certified, however a penalty is imposed for late filing. Upon the filing of an application, the property will be inspected to determine its qualification.

Agricultural Market Values:

The Appraisal District will estimate and maintain market value estimates on all qualified 1-d and 1-d-1 agricultural valued property. Market value estimates will utilize generally accepted appraisal valuation methods as outlined in the Vacant Real Property section of this report. Improvements on agricultural properties will be inspected and appraised at market value. A sketch of the dwelling and the outbuildings will be drawn, showing all structures and buildings. All farm, rural dwellings, and other improvements will be described and the market value will be estimated as outline in the residential property and commercial property sections of this report.

BUSINESS TANGIBLE PERSONAL PROPERTY

Scope of Work:

The personal property division of the commercial appraisal department is responsible for developing fair and uniform market values for business personal property located within the district. There are four different personal property types appraised by the personal property appraisers, these include:

- Business Personal Property accounts
- Leased Assets
- Vehicles
- Multi-Location Assets.

Sources of Data:

Renditions: The primary source for the discovery of leased and multi-location tangible assets is property owner renditions. A rendition is a form that may be used by a property owner to report taxable property owned on Jan. 1 to the appraisal district and must be filed before the statutory filing deadline. The rendition identifies, describes and gives the location of the taxable property. Business owners are required by law to report a rendition of their personal property. Persons filing renditions who are not the property owner, owner's employee or affiliated entity or a secured party must have the rendition notarized.

Business Personal Property Inspections: In addition to data collected and verified by the field appraisers, various discovery publications such as the Court Reporter and state sales tax listings will be used to discover personal property. Tax assessors, city and local newspapers, and the public often provide the district information regarding new personal property and other relevant facts related to property valuation.

Vehicles and Leased Vehicles: The district purchases data from InfoNations Inc. which provides MCAD with a listing of vehicles within Midland County. The vendor develops this listing from the Texas Department of Transportation (DOT) Title and Registration Division records. MCAD also uses national and regional publications to research vehicle value benchmarks. Other sources of data include property owner renditions and field inspections.

Procedure for Collecting and Validating Data:

Field Inspection: Data characteristics for each personal property account in Midland County will be collected in the field and data entered to the district's computer-assisted personal property appraisal (CAPPA) system. The property characteristics data drives the (CAPPA) system. There are 3 appraisers assigned to the discovery and collection of business personal property data. Other appraisers will be utilized as needed.

Personal property data collection procedures are published and distributed to all appraisers involved in the appraisal and valuation of personal property. The appraisal procedures will be reviewed and revised in the reappraisal year. The Personal Property Division of the Commercial Department will be given a four year period to complete a universal inspection of business personal property.

Highest and Best Use Analysis:

The appraisal district will analyze the highest and best use of the personal property. The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of personal property is normally its current use.

Depreciation Schedule and Trending Factors:

The coordinator of the personal property department, working with appropriate staff, will develop depreciation tables and trending factors which will be incorporated into the CAPP system. These trends and factors will be applied as needed with consideration to the individual characteristics of the type of personal property being appraised.

Business Personal Property: The primary approach to the valuation of business personal property is the cost approach. The replacement cost new (RCN) is either developed from property owner reported historical cost or from developed valuation models. The trending factors to be used to develop RCN will be based on published valuation guides. The percent good depreciation factors are also based on published valuation guides. The index factors and percent good depreciation factors will be used to develop present value factors (PVF), by year of acquisition, as follows:

$$PVF = INDEX FACTOR \times PERCENT GOOD FACTOR$$

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

$$MARKET VALUE ESTIMATE = PVF \times HISTORICAL COST$$

This mass appraisal PVF schedule is used to ensure that estimated values are uniform and consistent within the market.

Computer Assisted Personal Property Appraisal (CAPP):

The CAPP valuation process has two main objectives: 1) Analyze and adjust existing SIC models. 2) Develop new models for business classifications not previously integrated into CAPP. The delineated sample is reviewed for accuracy of SIC code, square footage, field data, and original cost information. CAPP model values will be used in the general business personal property valuation program to estimate the value of new accounts for which no property owner's rendition is filed.

Model values are used to establish tolerance parameters for testing the valuation of property for which prior data years' data exist or for which current year rendered information is available. The calculated current year value or the prior year's value will be compared to the indicated model value by the valuation program. If the value being tested is within an established acceptable percentage tolerance range of the model value, the account passes that range check and moves to the next valuation step. If the account fails the tolerance range check, it is flagged for individual review. Allowable tolerance ranges may be adjusted depending on the analysis of prior results.

- Model Specification:** Four digit numeric codes, called Standard Industrial Classification (SIC) codes will be used by MCAD as a way to delineate personal property by business type. MCAD will further stratify these codes by adding alpha suffixes to SIC codes in order to group business types that have similar personal property characteristics. All of the personal property analysis work done in association with the valuation process is SIC code specific. The SIC codes will be delineated based on observable aspects of homogeneity and will be reviewed to determine if further stratification is warranted. Models will be created and refined using actual original cost data to derive a typical replacement cost new (RCN) per square foot for a specific category of assets. The RCN per square foot will be depreciated by the estimated age using the depreciation table adopted for the tax year. The data sampling process will be conducted in the following order: 1) Prioritizing Standard Industrial Classification (SIC) codes for model analysis. 2) Compiling the data and developing the reports. 3) Field checking the selected samples. The models are built and adjusted using district CAMA systems and internally developed software.
- Model Calibration:** The models are then tested against the previous year's data. The typical RCN per square foot (or applicable unit) is determined by a statistical analysis of the available data. The Personal Property Coordinator will adjust cost schedules based on SIC codes. Cost data from property owner renditions, hearings, Comptroller of Public Accounts state schedules, and published cost guides will be utilized to adjust and modify the cost schedules. The cost schedules will be reviewed and modified as needed during the reappraisal year in order to conform to changing market conditions. The schedules are typically in a price per square foot format, but some SIC codes are in a price per unit format, such as per room for hotels.

Statistical Analysis:

Summary statistics including, but not limited to, the median, weighted mean, and standard deviation will provide the personal property department with an analytical tool by which to determine both the level and uniformity of appraised value by SIC code. Review of the standard deviation will be use to discern appraisal uniformity within SIC codes.

Vehicles and Leased and Multi-Location Assets

Value estimates for vehicles are to be provided by an outside vendor and are based on NADA published book values and Hunter McLean published book values. Vehicles that are not valued by the vendor are valued by an appraiser using present value factor (PVF) schedules or published guides.

Leased and multi-location assets are valued using the PVF schedules mentioned above. If the asset to be valued in this category is a vehicle, then published book values or similar values provided by a vehicle data vendor will be adjusted according to current economic criteria. Assets that are not valued by the vendor will be valued by an appraiser using PVF schedules or published guides.

INDUSTRIAL TANGIBLE PERSONAL PROPERTY

The Midland Central Appraisal District contracts with the firm Pritchard and Abbott for the valuation of industrial tangible personal property. Pritchard and Abbott has prepared a separate and distinct reappraisal plan and mass valuation report pertaining to industrial personal property on behalf of the appraisal district for the current tax year. The mass industrial valuation report is made in accordance to current USPAP requirements and standards. Midland Central Appraisal District has included a copy of the Pritchard and Abbott's 2019-2020 reappraisal plan in this report (Appendix D).

MOBILE HOMES

Scope of Work:

The personal property division of the commercial appraisal department is responsible for developing fair and uniform market values for mobile homes in the district. This is property designated as personal property and registered with the Texas Department of Housing and Community Affairs (TDHCA). Newly discovered mobile homes in Midland County will be classified as personal property. Mobile Homes classified as “real property” by the TDHCA will be listed as an improvement to the real property account.

Mobile homes appraised by the personal property staff include:

- Mobile Homes as personal property on detached land parcels.
- Mobile Homes located in Mobile Home Parks.
- Mobile Homes utilized for other purposes.

Procedure for Collecting and Validating Data:

Data characteristics for each mobile home in Midland County will be collected in the field and data entered to the district’s computer-assisted personal property appraisal (CAPPA) system. Personal Property field appraisers will discover and collect mobile home property data including the mobile homes HUD number and Serial number. Additional staff will be used as needed. In addition, the district will review taxpayer submitted property renditions on mobile homes.

Sources of Mobile Home Data:

In addition to data collected and verified by the field appraisers, various information sources and publications such as the NADA Manufactured Housing Appraisal Guide, the TDHCA web site, the National Association Manufactured Housing Institute (NAMHI) and others data sources will be used to assist the district in the discovery and valuation of mobile homes.

Mobile Home Valuation Method:

Valuation schedules will be derived used information obtained from the NADA Manufactured Housing Appraisal Guide. The schedule is comprised of square foot values categorized by make, model, and size. These square foot values will be further modified to reflect regional and local adjustment factors. After the schedule is developed and entered into the CAPPA system, adjustments will be made to individual units for observed functional and economic obsolesces based on on-site inspections, renditions, sales information or other data supplied to the district.

- **Model Specification:** The personal property department coordinator will derive cost schedules for mobile homes using the NADA Manufactured House Guide. These schedules will be based on single or double wide classification, quality, and feature characteristics. In the reappraisal year, the mobile home cost schedules will be reviewed and modified as needed in order to conform to changing market conditions
- **Model Calibration:** Mobile Home Valuation Models will be calibrated by adjusting the mass appraisal formulas, tables and schedules to reflect current local market conditions. Information gathered from property owner renditions, hearings, MLS sales, and other sources will be used as needed for value model calibration. When sales data is available, cost-to-sale ratios will be compared to the appraisal-to-sale ratios in order to determine the market if adjustment factors should be utilized.

Statistical Analysis:

Summary statistics including, but not limited to, the median, weighted mean, and standard deviation will provide the personal property department an analytical tool by which to determine both the level and uniformity of appraised values can be determined.

Review, Analysis and Verification of Contractor Services:

The Midland Central Appraisal District reviews and verified the appraisal work completed by valuation contractors. The current contract service is being provided by Prichard and Abbott Inc. Our staff verifies the work of the contractor in various phases as listed below:

- 1) During the discovery process, our staff compares the current accounts that are active and recently inactive. This information is forwarded to the contractor for updating.
- 2) Renditions and exemption applications on contracted properties are scanned into MCAD's CAMA program and sent to the contractor. In addition, any renditions or applications received by the contractor are sent to MCAD. Data is spot checked by district staff to assure proper application.
- 3) As the contractor completes its appraisal, the MCAD staff inputs the data into the CAMA system checking for any discrepancies. The contractor's owner number is maintained for reference.
- 4) Communication via telephone, email, and fax is utilized to update all account records as needed. Meetings with MCAD staff and contract personnel are conducted to assure proper appraisal standards and methods have been utilized.
- 5) The appraisal district maintains records and documentation for the verification process.
- 6) The appraisal district verifies that all mail-outs including the Notice of Appraised Value, protest notices, and ARB schedule dates, are accurate and comply with the Texas Property Tax Code.
- 7) Mineral accounts are reviewed and compared with data from prior year. The appraisal district receives and reviews information from the contractor regarding how their values and estimates are made.

THE MASS APPRAISAL REPORT

Each tax year the tax code requires a Mass Appraisal Report 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 is compliant with STANDARD RULE 6-9 of *USPAP*.

Midland Central Appraisal District maintains a copy of the Mass Appraisal Report prepared and certified by the Chief Appraiser at the district offices.

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 developed each year. These items include, but are not limited to: cost schedules, depreciation schedules, land tables, sale and equity comparable adjustment grids, sale data, retail surveys, vacancy information, expense ratios, overall capitalization rates, income & expense data, field cards and photographs. This information is maintained electronically in categorized files by department and utilized throughout the appraisal calendar.

Communications:

Authorized staff will communicate with the owner, property manager, fiduciary agent, or other duly authorized parties in a good faith effort to ascertain and update property information and to resolve valuation and exemption conflicts. Communication methods include but are not limited to: in-person visits, telephone conversations, postal correspondence, and email correspondence. Formal reviews will include all required and adopted official notices, forms, formal letters, affidavits, and personal appearances before the Appraisal Review Board.

General Informal Review Procedures:

MCAD often conducts informal reviews of property with owners or their authorized agent, in order to resolve issues and concerns of the owner/agent. The appraiser assigned to informally review of accounts will comply with authorized communications standards as listed above. The Appraiser will confirm the existence and accuracy of property data characteristics and will review any and all evidence submitted by the owner or authorized agent regarding property issues addressable by the appraisal district. Informal valuation reviews will be comprised of data accuracy checks, verification of improvements, review of market adjustment factors, and review of comparable sales information.

The district appraiser will utilize available valuation tools to assist in the market value analysis. Specialized valuation tools may include but is not limited to: sales data ratios, archived value reports and appraisals, data queries from the CAMA system, various district ratios and reports. The district appraiser may physically inspect the subject property upon request of an owner/agent, or as deemed necessary by the appraiser.

Upon reaching an amicable agreement, the appraiser is authorized to sign the district's Value Change Form as authorized in Sec 1.111e of PTC. The owner/agent will be required to sign same form in order to accept the agreed upon settlement terms for the current year.

General Formal Review Procedures:

The Midland Central Appraisal District will present all formal taxpayer protests to the Appraisal Review Board (ARB). An ARB is comprised of citizens, appointed by the local administrative district judge, authorized to resolve disputes between taxpayers and the appraisal district. The ARB will determine taxpayer protests. In taxpayer protests, the ARB will listen to both the taxpayer and the chief appraiser.

ARB decisions are binding for the year in question and all meetings are open to the public. Notices of the date, time and place of each meeting will be posted at least 72 hours in advance at the appraisal district office and the county clerk's office in accordance with the Texas Open Meetings Act. The ARB's hearing procedures will be posted in a prominent place in the room in which hearings are held.

At least 14 days prior to a taxpayer's protest hearing, the appraisal district will provide the taxpayer a copy of the ARB procedures and a statement affirming the taxpayer may inspect and obtain a copy of the data, schedules, formulas and any other information the chief appraiser plans to introduce at the hearing as requested. The taxpayer or authorized agent will be required to appear in person; send a person duly authorized in writing to appear on behalf of the owner; or send a sworn affidavit to the ARB with supporting evidence.

The district will prepare evidence to be presented to the ARB in accordance with the rules and procedures established by the Texas Property Tax Code. The Chief Appraiser or his authorized staff member will present the district's case in ARB hearings, allowing for review of evidence, questioning, and cross examination from ARB members. Once the ARB board rules concerning a protest appeal, the ARB will direct a written order to be sent by certified mail.

The taxpayer will have the right to appeal the ARB's decision to state district court in the county in which the property is located. The taxpayer may also be able to appeal the ARB decision to binding arbitration as detailed in the provisions of the Texas Property Tax Code. A petition for review with the district court must be filed within 60 days of receiving the ARB's order, and not later than the 45th day after receiving notice of the ARB order for binding arbitration.

REAL PROPERTY:

Informal Reviews: Evidence used in an informal review of real property accounts may include but is not limited to the following items and procedures:

- Review of property card for verification of information.
- Review and verification of owner information and exemption status.
- On-site inspection and measurement of property improvements.
- Ratio study analysis of subject in comparison with area sales data.
- Acceptance and review of owner submitted information including; plats, drawings, plans, appraisals, broker analysis, operating data, production, etc.
- Local, State, and Federal Agency reports and analyses.
- Application of other valuation methods and approaches as appropriate.

Formal Review: Evidence used in formal reviews is presented to the ARB as outlined above. Real property information submitted to the ARB may include but is not limited to the following items and procedures:

- Verified property account information.
- Sales maps of neighborhood showing comparable sales data.
- Miscellaneous Paper or Electronic Maps and Plats.
- Sales Ratio Study analysis.
- Equalization Analysis.
- Marshall & Swift computerized residential and commercial cost analysis.
- Results of on-sight inspections.
- Yield Capitalization Analysis Summaries: Direct Capitalization, Discounted Cash Flow Analysis.
- Recent photos or videos of property.
- MS PowerPoint presentations.
- Local, Regional, Statewide, and National articles, statistics, or reports.

PERSONAL PROPERTY:

Informal Reviews: Evidence used in an informal review of personal property accounts may include but is not limited to the following items and procedures:

- Review of property card for verification of information.
- Review and verification of owner information and exemption status.
- On-site inspection, measurement, or count of property.
- Ratio study analysis of subject with comparable sales data.
- Acceptance and review of owner submitted information including; renditions, inventory listings, shipping reports, logs, appraisals, valuation reports, production data, etc.
- Local, State, and Federal Agency reports and analyses.
- Application of other valuation methods and approaches as appropriate.

Formal Review: Evidence used in formal reviews is presented to the ARB as outlined above. Personal property information submitted to the ARB may include but is not limited to the following items and procedures:

- Verified property account information.
- Sales information showing comparable sales data where available.
- Inventory listings, shipping reports, logs, valuation reports, production data, etc.
- Sales Ratio Study analysis.
- Equalization Analysis.
- Results of external valuation guides and services.
- Results of on-sight inspections.

- District Analysis Summaries: Density, Income Analysis, etc.
- Recent photos or videos of property.
- MS PowerPoint presentations.
- Local, Regional, Statewide, and National articles, statistics, or reports.

MINERAL INTEREST:

Informal and Formal Reviews: The Midland Central Appraisal District contracts with the firm Pritchard and Abbott Inc. for the value defense of mineral property. Pritchard and Abbott prepare and defend their valuations on behalf of the appraisal district for each current tax year.

Pritchard and Abbott seek to resolve property disputes informally with the taxpayer whenever possible. During formal protests, Pritchard and Abbott will present evidence to the Appraisal Review Board and the taxpayer during formal value appeals. The Appraisal District maintains a copy of all material submitted during formal appeals of mineral valuations to the Appraisal Review Board. These documents are on file and available for public inspection and review.

INDUSTRIAL TANGIBLE PERSONAL PROPERTY:

Informal and Formal Reviews: The Midland Central Appraisal District contracts with the firm Pritchard and Abbott Inc. for the value defense of industrial tangible personal property. Pritchard and Abbott prepare for and defend their valuations on behalf of the appraisal district for each current tax year.

Pritchard and Abbott seek to resolve property disputes informally with the taxpayer whenever possible. During formal protests, Pritchard and Abbott will present evidence to the Appraisal Review Board and the taxpayer during formal value appeals. The Appraisal District maintains a copy of all material submitted during formal appeals of industrial tangible personal property valuations to the Appraisal Review Board. These documents are on file and available for public inspection and review.

Appendix A: 2019 – 2020 CALENDAR OF KEY EVENTS

The following calendar of key events with critical completion dates is prepared for each major work area. This calendar identifies all key events for appraisal, clerical, customer service, and information systems. A separate calendar is prepared for tax years 2019 and 2020.

YEAR: 2018 APPRAISAL RELATED ACTIVITY OR EVENT

July 2018	<ul style="list-style-type: none">* Formal ARB Hearings scheduled for property appraised by Pritchard and Abbott.* Appraisal Review Board approves Appraisal Records on or before July 20th.* Chief Appraiser Certifies Appraisal Roll To Taxing Units on or before July 25th.* Independence Day – MCAD Closed.
August 2018	<ul style="list-style-type: none">* Begin 2019 Appraisal Field Work for Residential & Commercial New Construction Discovery.* Begin Cost, Sale & Income Data Collection for 2019 Model Specification.* Obtain new appraisal staff as needed resulting from attrition and turnover.* Staff Training as needed for field data collection.* Pritchard & Abbott's Valuation Data is integrated into District's CAMA System.* Begin Field Inspection of Residential and Commercial Properties within the jurisdictional boundaries of the district.* Begin 2019 Residential and Commercial Property Valuation.* Begin 2019 Sales Validation and Analysis.
September 2018	<ul style="list-style-type: none">* Sept. 1 – Statutory Appraisal Date for Certain Inventory Properties (Sec 23.12).* Begin Business Personal property Discovery and Verification (Drive-out).* Begin Review of 2019 Business Personal Property Valuation Models.* Labor Day – District Closed.* Finalize 2018 Appraisal Review Board Hearings.* Begin Work on New Subdivisions.* Sept 15 – Statutory Deadline for Approval of the 2019 Budget.* Sept 15 – Statutory Deadline for Approval of the 2019-2020 Reappraisal Plan.
October 2018	<ul style="list-style-type: none">* District Mails 2018 Tax Bills for Contracted Taxing Units – Provides Customer Support.* Begin 2019 Residential and Commercial Land Analysis.* Supervisory Review of Commercial Land Ratio Study.* Begin Residential and Commercial Neighborhood Delineations.
November 2018	<ul style="list-style-type: none">* Begin 2019 Commercial Real Property Field Reappraisal.* Thanksgiving Holiday – MCAD Offices Closed.* Begin 2019 Residential Land Reappraisal/Permits Field Review.* Begin 2019 Commercial Land Reappraisal/Permits Field Review.* Review and Return Comptroller's Clerical Error Report for Property Value Study.
December 2018	<ul style="list-style-type: none">* Conduct Employee Performance Reviews of district staff.* Christmas Holiday – MCAD Closed.* Mail Business Personal Property Rendition Forms.* Prepare documents for Comptroller's MAP Review.

YEAR: 2019 APPRAISAL RELATED ACTIVITY OR EVENT

- January 2019**
- * New Year's Day – MCAD Closed.
 - * Jan 1 – Statutory Appraisal Date for Most Categories of Taxable Property.
 - * Residential & Commercial Sales Ratio Analysis.
 - * Martin Luther King Day – MCAD Closed.
 - * Conduct Strategic Planning: Chief Appraiser and MCAD Supervisors.
 - * Obtain new appraisal staff as needed resulting from attrition and turnover.
 - * Receive Property Value Study Results from Comptroller's Property Tax Division.
 - * Work Surveys: Tenant list of aircraft, office buildings, Mobile Home Parks, Etc.
 - * Begin Receiving, Processing, and Review of Real Property Renditions.
 - * Begin Receiving, Processing, and Review of Exemption Applications.
- February 2019**
- * Begin Application of Residential Neighborhood Market Adjustments (NBF).
 - * President's Day – MCAD Closed.
 - * Complete 2019 Residential & Commercial Land Reappraisal – Managers Reviews.
 - * Begin Working 2019 Business Personal Property Renditions.
 - * Update CAMA Model Specifications for Residential & Commercial Value Model Systems.
 - * Begin Working commercial vehicle registration lists.
 - * Comptroller's Field Agent MAP review of Appraisal District.
- March 2019**
- * Business Personal Property Completes Field Verification Activities.
 - * Recommendations from annual meeting with Agricultural Advisory Board is considered.
 - * Complete CAMA Model Specifications for Residential & Commercial Value Model Systems.
 - * Complete Current Year Residential & Commercial New Construction Discovery.
 - * Complete Market Sales Validation and Analysis.
 - * Analysis & Preparation for Final Value Edits – Personal property & Commercial.
 - * ARB Mandatory Comptroller Training.
- April 2019**
- * Begin Budget Preparation for 2020.
 - * Finalize Residential Changes Prior to First Value Notice Run.
 - * Provide Neighboring Appraisal Districts with Valuation Data.
 - * April 1 – Property Tax Rendition Deadline.
 - * Complete Commercial Final Value Edits- Manager Review Reports
 - * Finalize Commercial & Business Personal Property Prior to First Value Notice Run.
 - * Analysis & Preparation for Final Value Edits – Residential Mass Appraisal Model Systems.
 - * 2019 Notices of Appraisal Value Mailed (Sec 25.19). Homestead Properties.
- May 2019**
- * 2019 Notices of Appraisal Value Mailed (Sec 25.19). Non-Homestead Properties.
 - * Begin Informal Staff Valuation Appeal Meetings.
 - * Memorial Day – MCAD Closed.
 - * May 15th is the Property Tax Appeal Deadline (or 30 days after Notice is mailed).
- June 2019**
- * Appraisal Review Board Hearings Begin for Current Year.
 - * Prepare Mass Appraisal Report.
 - * Financial One-site Audit of Appraisal District (varies from year to year).

- July 2019**
- * Formal ARB Hearings scheduled for property appraised by Pritchard and Abbott.
 - * Independence Day – MCAD Closed.
 - * Chief Appraiser submits Appraisal Roll for ARB approval.
 - * Appraisal Review Board approves Appraisal Records on or before July 20th.
 - * Chief Appraiser Certifies Appraisal Roll To Taxing Units on or before July 25th.
- August 2019**
- * Begin 2019 Appraisal Field Work for Residential & Commercial New Construction Discovery.
 - * Begin Cost, Sale & Income Data Collection for 2020 Model Calibration.
 - * Staff Training as needed for field data collection.
 - * Pritchard & Abbott's Valuation Data is Integrated into District's CAMA System.
 - * Begin Field Inspection of Residential and Commercial
 - * Properties within the jurisdictional boundaries of the district.
 - * Begin 2020 Residential and Commercial Property Valuation.
 - * Begin 2020 Sales Validation and Analysis.
- September 2019**
- * Sept. 1 – Statutory Appraisal Date for Certain Inventory Properties (Sec 23.12).
 - * Begin Business Personal property Discovery and Verification (Drive-out).
 - * Begin Review of 2020 Business Personal Property Valuation Models.
 - * Labor Day – District Closed.
 - * Finalize 2019 ARB Hearings.
 - * Begin Work on New Subdivisions
 - * Sept 15 – Statutory Deadline for TAD Board of Directors to Approve 2020 Budget.
- October 2019**
- * District Mails 2019 Tax Bills for Contracted Taxing Units – Provides Customer Support.
 - * Begin 2020 Residential and Commercial Land Analysis.
 - * Supervisory Review of Commercial Land Ratio Study.
 - * Begin Residential and Commercial Neighborhood Delineations.
- November 2019**
- * Begin 2020 Commercial Real Property Field Reappraisal.
 - * Thanksgiving Holiday – MCAD Offices Closed.
 - * Begin 2020 Residential Land Reappraisal/Permits Field Review.
 - * Begin 2020 Commercial Land Reappraisal/Permits Field Review.
 - * Review and Return Comptroller's Clerical Error Report for Property Value Study.
- December 2019**
- * Conduct Employee Performance Reviews of district staff.
 - * Christmas Holiday – MCAD Closed.
 - * Mail Business Personal Property Rendition Forms.
 - * Comptroller publishes final report of MAP review.

YEAR: 2020 APPRAISAL RELATED ACTIVITY OR EVENT

- January 2020**
- * New Year's Day – MCAD Closed.
 - * Jan 1 – Statutory Appraisal Date for Most Categories of Taxable Property.
 - * Residential & Commercial Sales Ratio Analysis.
 - * Martin Luther King Day – MCAD Closed.
 - * Conduct Strategic Planning: Chief Appraiser and MCAD Supervisors.
 - * Receive Property Value Study Results from Comptroller's Property Tax Division.
 - * Work Surveys: Tenant list of aircraft, office buildings, Mobile Home Parks, Etc.
 - * Begin Receiving, Processing, and Review of Real Property Renditions.
 - * Begin Receiving, Processing, and Review of Exemption Applications.

- February 2020**
- * Begin Application of Residential Neighborhood Market Adjustments (NBF).
 - * President's Day – MCAD Closed.
 - * Complete 2020 Residential & Commercial Land Reappraisal – Managers Reviews.
 - * Begin Working 2020 Business Personal Property Renditions.
 - * Update CAMA Model Specifications for Residential & Commercial Value Model Systems.
 - * Begin Working commercial vehicle registration lists.
- March 2020**
- * Business Personal Property Completes Field Verification Activities.
 - * Recommendations from annual meeting with Agricultural Advisory Board is considered.
 - * Complete CAMA Model Specifications for Residential & Commercial Value Model Systems.
 - * Complete Current Year Residential & Commercial New Construction Discovery.
 - * Complete Market Sales Validation and Analysis.
 - * Analysis & Preparation for Final Value Edits – Personal property & Commercial.
 - * ARB Mandatory Comptroller Training.
- April 2020**
- * Begin Budget Preparation for 2021.
 - * Finalize Residential Changes Prior to First Value Notice Run.
 - * Provide Neighboring Appraisal Districts with Valuation Data.
 - * April 1 – Property Tax Rendition Deadline.
 - * Complete Commercial Final Value Edits- Manager Review Reports
 - * Finalize Commercial & Business Personal Property Prior to First Value Notice Run.
 - * Analysis & Preparation for Final Value Edits – Residential Mass Appraisal Model Systems.
 - * 2020 Notices of Appraisal Value Mailed (Sec 25.19). Homestead Properties.
- May 2020**
- * 2020 Notices of Appraisal Value Mailed (Sec 25.19). Non-Homestead Properties.
 - * Begin Informal Staff Valuation Appeal Meetings.
 - * Memorial Day – MCAD Closed.
 - * May 15th is the Property Tax Appeal Deadline (or 30 days after Notice is mailed).
- June 2020**
- * Appraisal Review Board Hearings Begin for Current Year.
 - * Prepare Mass Appraisal Report.
 - * Financial One-site Audit of Appraisal District (varies from year to year).

Note: July – December of 2020 will be addresses in the subsequent reappraisal plan.

Appendix B: Appraisal Personnel Utilized in Reappraisal Plan

<u>DEPARTMENT</u>	<u>EMPLOYEE</u>	<u>POSITION</u>
ADMINISTRATION	JERRY M. BUNDICK	CHIEF APPRAISER
	DENNIS RAMBO	ASSISTANT CHIEF APPRAISER
	JUDY WHITWORTH	DIR. OF ADMINISTRATION
RESIDENTIAL	DANIEL ALDERETE	APPRAISAL MANAGER
	MARGARET TURNER	APPRAISER
	DAN PRICE	APPRIASER
	JERRY GILMORE	APPRAISER
AG / RURAL LAND	LINDA ORNELAS	APPRAISER
COMMERCIAL	MANNY NADIVIDAD	APPRAISAL MANAGER
	LARRY CLEMENTS	APPRAISER
PERSONAL PROPERTY	CARMEN RODELO	APPRAISAL MANAGER
	ZACHARY KOHN	APPRAISER
	SHAWNA NIVER	APPRAISER
SUPPORT STAFF	TOM BULLA	IT / MAPPING COORDINATOR
	JENNIFER CAMPBELL	DATA COORDINATOR
	ANNETTE SALINAS	EXEMPTION COORDINATOR
	BEVERLY HARRINGTON	EXEMPTION CLERK
	COURTNEY GRAY	EXEMPTION CLERK
	TOMMY SORRELLS	DATA SPECIALIST
	ARLENE RUTHERFORD	DATA SPECIALIST
	MAYELA ZUBIATE	DATA SPECIALIST
	NATALIE VILLANUEVA	DATA SPECIALIST
	DANEITA PERTILE	DEED SPECIALIST
	BOBBY REEVES	LAND SPECIALIST

Appendix C: GLOSSARY

ACRE: A land measure equal to 43,560 square feet.

AD VALOREM TAX: A real estate tax levied in proportion to the value of the property. "Ad valorem" is a Latin phrase meaning according to the value.

APPRAISAL: An opinion of value based upon market conditions.

APPRAISAL RECORDS: Each year's listing of all taxable property in the appraisal district. The records show the property identification number, owner's names, appraised value, value of any exemptions, and other information.

APPRAISAL ROLL: A listing of all the taxable property and values within the appraisal district boundaries for a given year. The appraisal records become the appraisal roll when the Appraisal Review Board approves the records.

APPROACHES TO VALUE: Valuation methods used to determine a defined value of a real or personal property. The three common approaches for real property are the cost approach, income approach and market (comparable sales) approach.

ARB: Appraisal Review Board. A non-elected board established by the Texas Property Tax Code for the purpose of hearing and deciding various property disputes between the appraisal district and the property owner; the owner's agent, or the contractually obligated tenant.

ASSESSMENT: The steps a taxing unit takes to impose a legal property tax, including the official act of calculating the taxing unit's tax base.

ASSESSOR/COLLECTOR: The person responsible for both tax assessment and collection, accurate record keeping, refunds, tax certificates and other assessment and collection activities.

CAD: County Appraisal District. Each county has established an appraisal district office responsible for maintaining taxable real and personal property records and placing a value on all property for taxation purposes.

CAMA: Computer-Assisted Mass Appraisal is the process by which property is appraised utilizing computers, computer models and analytical programs.

CAPPA: Computer-Assisted Personal Property Appraisal.

CHIEF APPRAISER: The chief appraiser is the chief executive officer of the County Appraisal District. He or she is appointed by the appraisal district board of directors.

Coefficient of Dispersion (COD): is a measure of the uniformity of appraisals within a category. The COD expresses numerically the average distance between an individual appraisal ratio in a set and the median for that set of appraisal ratios.

COMPARABLES: A shortened term for similar property sales, rentals, or operating expenses used for comparison in the valuation process; also called "comps".

COST APPROACH: Estimates property value by determining replacement cost new, less depreciation, plus the land value.

DEED: A written instrument that when properly executed and delivered conveys title.

GIS: Geographic Information System. It is comprised of computerized mapping software and hardware.

GRANTEE: A person to whom property is transferred by deed or to whom property rights are granted by a trust instrument or other document.

GRANTOR: A person who transfers property by deed or grants property rights through a trust instrument or other document.

IAAO: International Association of Assessing Officers.

INCOME APPROACH: An appraisal method in which the property is valued according to its ability to produce income.

IMPROVEMENTS: All buildings, structures, pools, fences, etc., fixed to the land. For example, a house built on a vacant lot is considered an improvement.

LEGAL DESCRIPTION: A statement in words or codes identifying land for all purposes of law.

MARKET APPROACH: Estimates property value by comparison to similar properties that have sold in the open market.

MARKET VALUE: "Market value" means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if: (a) exposed for sale in the open market with a reasonable time for the seller to find a purchaser, (b) 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 (c) Both the seller and the purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other; Reference 1.04(7), Texas Property Tax Code.

MASS APPRAISAL: The process of valuing a universe of properties as of a given date utilizing standard methodology, employing common data, which allows for statistical testing.

MEDIAN: A statistical measure of central tendency. It is defined as the "middle number" in a group of numbers, ranked from highest to lowest (or vice-versa).

METES AND BOUNDS: Terms used to describe the boundary lines of land, setting forth all the boundary lines together with their terminal points and angles. Metes means measurements Bounds means boundaries.

MLS: The Multiple Listing Service. A specialized distribution service whose members are comprised of real estate brokers who shared listings with other brokers. This organization is usually provided by the local real estate board.

OBLIQUE IMAGE: Oblique refers to the angle at which an image is captured. The aerial photography system known as Pictometry utilizes images which are typically captured at a 40 degree angle. Greater detail is revealed by capturing images at this angle, as opposed to a straight down or straight overhead.

OBSOLESCENCE: A form of depreciation; an impairment of desirability and usefulness caused by new inventions, changes in design, improved processes for production, or other external factors that make a property less desirable and valuable for a continued use; may be either functional or economic.

PARCEL: Any item of real property, regardless of size, that has a single owner or is held in undivided ownership and for which there is a separate appraisal record.

PICTOMETRY: A leading provider of geo-referenced, aerial, oblique image libraries and related software. Pictometry's images and technology are also used by GIS, planning, and assessing professionals as well as other commercial industries. Pictometry's tools include geo-referenced images which allows for accurate remote measurement of property.

PERSONAL PROPERTY: Identifiable portable and tangible objects that are considered by the general public to be "personal", e.g., furnishings, artwork, antiques, gems and jewelry, collectibles, machinery and equipment; all property that is not classified as real estate. Personal property includes movable items that are not permanently affixed to, and part of, the real estate.

RATIO STUDY: A comparison of appraised values to the market values of the same properties in order to determine the accuracy of appraisals.

REAL PROPERTY: Land and improvements to the land.

SIC CODE: Standard Industrial Classification code. These are four digit numeric I.D. codes.

TAAD: Texas Association of Appraisal Districts.

TAAO: Texas Association of Assessing Officers.

TAX BASE: Total assessed value in a given tax district.

TAX LEVY: The total sum of tax dollars imposed by a taxing unit on the taxable property, within the jurisdictional boundaries of the taxing unit.

TAX ROLL: An official list showing the amount of taxes charged against each taxpayer and/or each property within the jurisdiction of a tax district. Note: In property taxation, the tax roll is sometimes combined with the assessment roll into a single document.

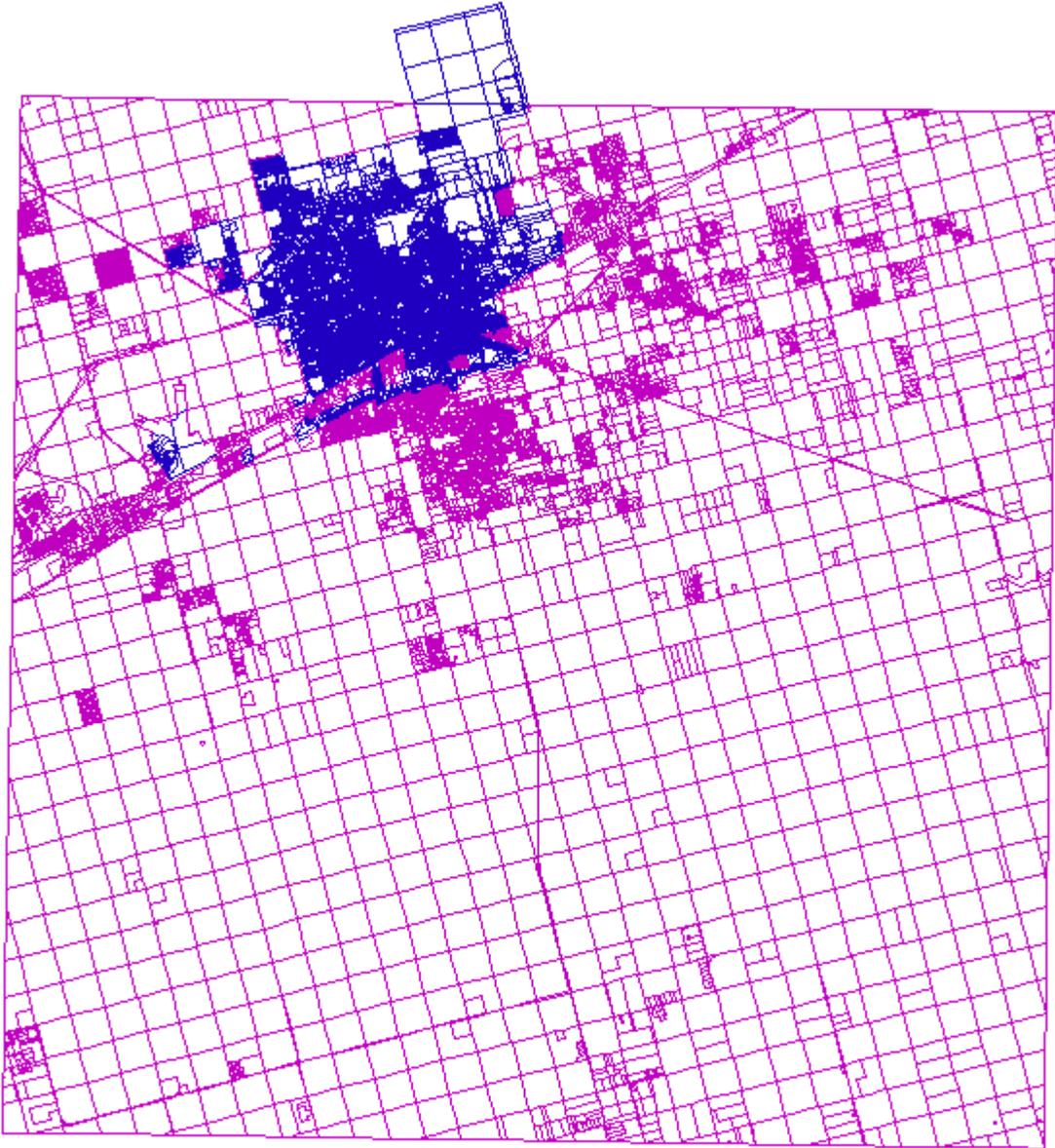
TAXABLE VALUE: A property's appraised value minus all applicable exemptions and other deductions or limitations.

TDLR: The Texas Department of Licensing and Regulation.

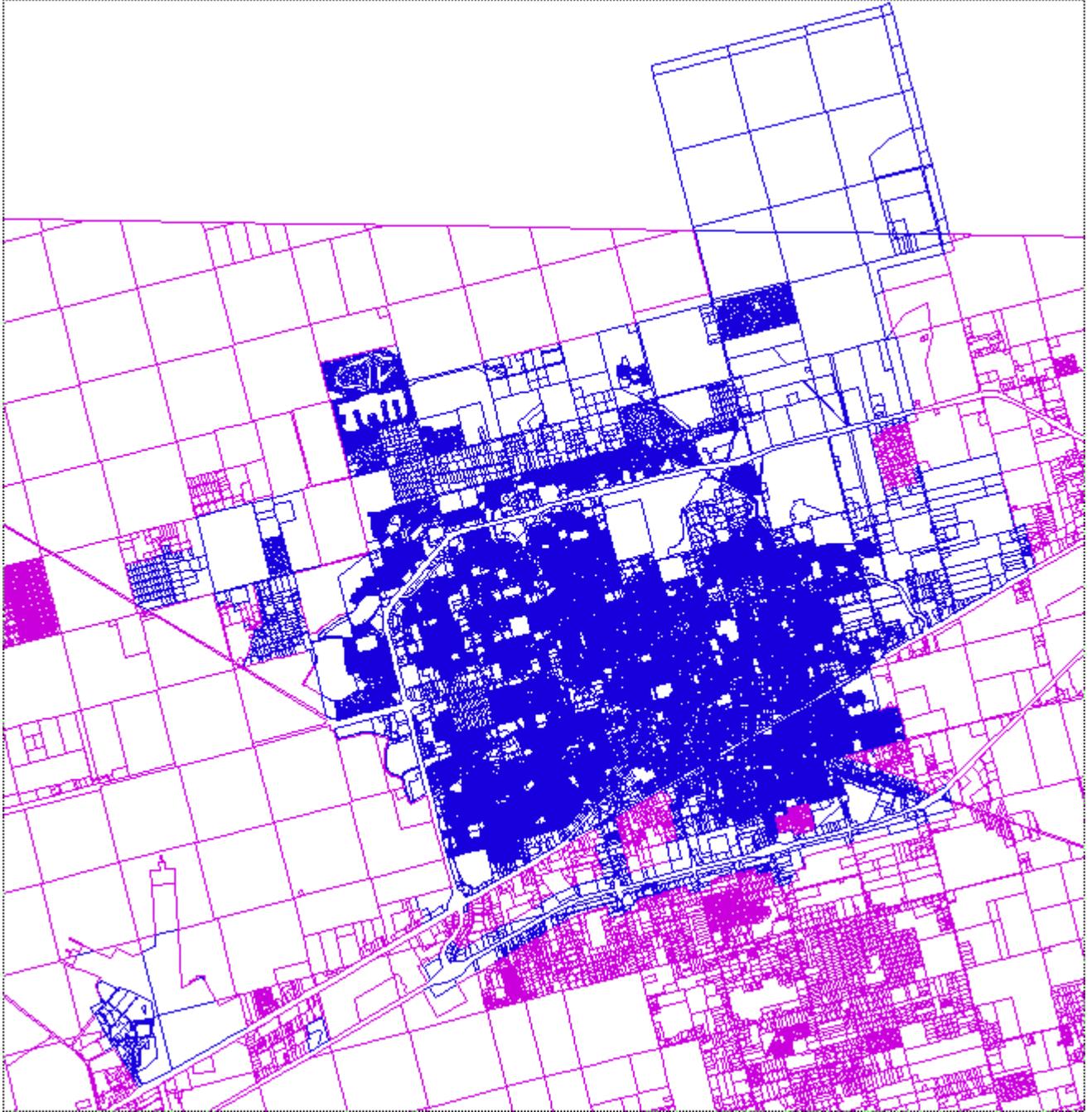
USPAP: The Uniform Standards of Professional Appraisal Practice. Current standards of the appraisal profession, developed for appraisers and the users of appraisal services by the Appraisal Standards Board of The Appraisal Foundation.

APPENDIX: D
MAPS

MIDLAND COUNTY TEXAS



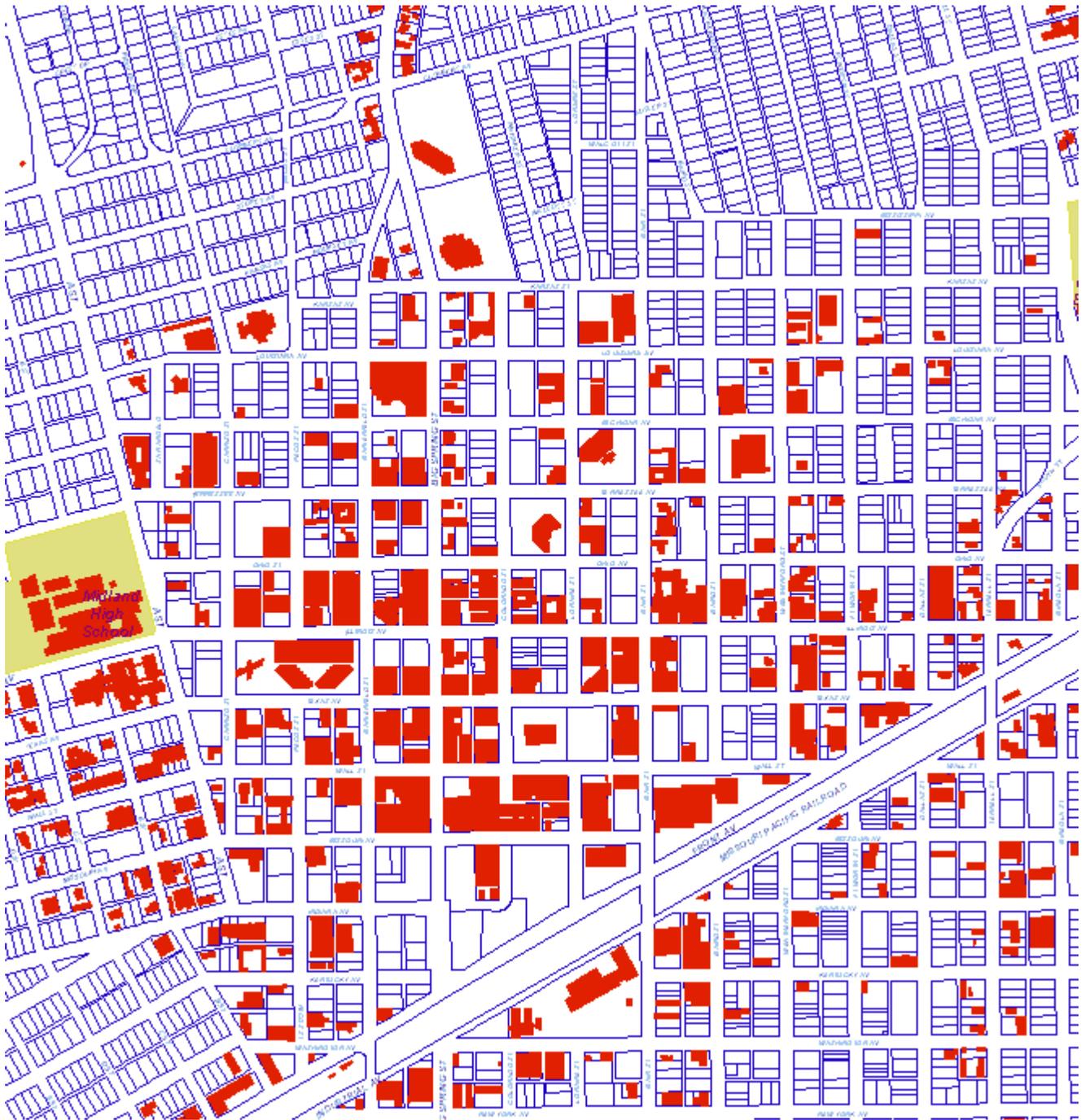
CITY OF MIDLAND



TYPICAL NEIGHBORHOOD – GEO 24



CENTRAL BUSINESS DISTRICT



APPENDIX: E

WORK SCHEDULES

2019-2020

MCAD WORK SCHEDULES

The Midland Central Appraisal District work schedules are targeted work plans for the guidance of district appraisal tasks and duties. While employees are directed to follow the schedules as written, variations is allowed with Department Manager submission and Chief Appraiser approval. The work schedule plans do not preclude deviation due to unforeseen natural disasters, comptroller or legislative changes, or modifications due to economic growth patterns.

2019 – 2020 Work Schedule: Residential:

JOB TASK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Residential Land Analysis												
Neighborhood Delineation GEOs												
Sales Validation / Analysis												
Sales Ratio Analysis												
CAMA Tables / Updates												
Residential Valuation												
New Construction Discovery												
New Construction Valuation												
New Subdivisions												
Split-outs / Combinations												
Prior Year Correction Hearings												
Prior Year Corrections												
Informal Staff Hearings												
Current Year ARB Hearings												
Field Checks - Regular												
Periodic Re-Inspections												

2019 – 2020 Work Schedule: Commercial / Industrial:

JOB TASK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Commercial Land Analysis												
Commercial Zone Delineation												
Sales Validation / Analysis												
Sales Ratio Analysis												
CAMA Tables / Updates												
Commercial Data Surveys												
Commercial Valuation												
New Construction Discovery												
New Construction Valuation												
Split-outs / Combinations												
Prior Year Correction Hearings												
Prior Year Corrections												
Informal Staff Hearings												
Current Year ARB Hearings												
Field Checks - Regular												
Periodic Re-Inspections												

2019 – 2020 Work Schedule: Personal Property:

JOB TASK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Assign Accounts												
Deliver Estimates of Value												
Discovery Drive-outs												
CAMA Tables / Updates												
Develop/Review Schedules												
Work Renditions Finalize Values												
Prior Year Corrections												
Informal Staff Hearings												
Current Year ARB Hearings												
Re-inspections												

2019 – 2020 Work Schedule: Administration:

JOB TASK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Director Meetings												
Director Election Process						2019						
Local Ad. Judge Appoints ARB												
CAD Board Selects ARB Officers												
ARB Training												
C.A. Publish Notices & Proced.												
Proposed Budget Activities									15th			
Approve Budget/Public Hearing												
ARB Approves Appr Records							20th					
C.A. Certifies Appr Roll							25th					
C.A. Data/Assist Entities TNT												
District Audit & Report												
Approve R.A.Plan/Public Hearing									2020			
Director Select Depository					2020							
Deliver Appr Roll to Assessors												

MCAD PERIODIC PROPERTY INSPECTION PLAN

The Midland Central Appraisal District periodic property re-inspection plan is a targeted work schedule for guidance of district appraisal inspection of all property within the district boundaries. While employees are directed to follow the inspection schedule as written, variations is allowed with Department Manager submission and Chief Appraiser approval. The work schedule plan does not preclude deviation due to unforeseen natural disasters, comptroller or legislative changes, or modifications due to economic growth patterns.

The inspection procedures are made in accordance with IAAO Standard of Mass Appraisal of Real and Personal Property incorporating on-site inspections and/or digital imaging technology.

Residential Real Property and Mobile Homes:

Time	Area	Description (See Quad. Map)
2019	QUADRANT: Q3	Southeastern Midland County. East of CR 1200 to the Midland-Glasscock county line; South of I-20 to Midland-Upton County line.
2020	QUADRANT: Q4	Southwestern Midland County. West of CR 1200 to Midland-Ector county line; South of SH 191 to Midland-Upton county line.
2021	QUADRANT: Q1	Northwestern Midland County. West of CR 1200 to Midland-Ector county line; North of SH 191 to Midland-Andrews county line. [End of four year Inspection Plan]
2022	QUADRANT: Q2	Northeastern Midland County. East of CR 1200 to I-20; North I-20 To the Midland-Martin county line. [Start new Inspection Plan]

Commercial & Industrial Real Property:

Time	Area	Description (See Zone Map)
2019	ZONE 2,3, & 4	Inter-City area, North Loop 250, and Big Springs Thoroughfare.
2020	ZONE 5 & 6	Andrews-Wall Thoroughfare and West Loop 250 South.
2021	ZONE 9 (Jan – June)	Corridor between I-20 and Hwy 80 starting Loop 250 going West ending at Midland County, county line.
2021	ZONE 10 (July– Dec)	Hwy 191 to Hwy 80, starting at frontage road on Loop 250 to Midland=Ector county line. [End of four year Inspection Plan]
2022	ZONE 7 (Jan– June)	Corridor between I-20 and Hwy 80 starting Loop 250 going East ending at Midland-Martin county line. [Start of New Plan]
2022	ZONE 8 (July– Dec)	Starting at Loop 250 going East ending at Hwy 158.

Commercial & Industrial Personal Property:

The district’s audit program adheres to IAAO’s Stand on Valuation of Personal Property. Emphasis is placed on the audit of new accounts, major accounts, and accounts with significant changes from the previous year.

All Personal Property accounts valued by district staff are audited each year utilizing property owner renditions as received from January through May of each year. Renditions are worked from January to May. In addition, physical inspections, “Drive-outs”, are conducted by appraisers from September to February each year.

Annual Industry Segment Review:

The Personal Property department identifies industry segments for examination each year. Drive-out workbooks are assigned to various district appraisers consisting of listings of personal property accounts to be worked. The audit reviews by industry category are as follows:

- January – February: Shopping Centers: via field workbooks.
- January – February: Office Buildings: via field workbooks.
- September – December: Retail, Medical, Services, Etc.: via field workbooks.

Valuation Contractor Personal Property:

Heavy Industrial personal property accounts are worked each year by the district’s valuation contractor, Prichard & Abbott Inc. (P&A). P&A’s field appraisers conduct physical inspections of property in Midland County from December through March of each year and enter the data into their corporate data systems.

The appraisal district staff transcribes data generated by the contractor into the district’s CAMA computer systems while simultaneously checking accounts for mailing address errors, location discrepancies, and double assessments. This process acts as a check-and-balance system to ensure data accuracy.

MCAD QUADRANT GEO LISING BY QUADRANT

The following is a listing of residential neighborhoods or “GEOs” the located within each of the four county quadrants utilized in the district’s periodic property re-inspection plan.

QUADRANT: Q1				
---------------------	--	--	--	--

GEO 01	GEO 31	GEO 55	GEO 86	GEO 99
GEO 03	GEO 33	GEO 56	GEO 87	GEO 102
GEO 12	GEO 36	GEO 57	GEO 88	GEO 103
GEO 13	GEO 37	GEO 58	GEO 89	GEO 105
GEO 14	GEO 39	GEO 59	GEO 90	GEO 106
GEO 22	GEO 42	GEO 74	GEO 92	GEO 107
GEO 23	GEO 44	GEO 76	GEO 93	GEO 108
GEO 24	GEO 47	GEO 77	GEO 94	GEO 120
GEO 25	GEO 49	GEO 79	GEO 95	GEO 124
GEO 27	GEO 52	GEO 80	GEO 96	
GEO 29	GEO 53	GEO 82	GEO 98	

QUADRANT: Q2				
---------------------	--	--	--	--

GEO 02	GEO 21	GEO 53	GEO 68	GEO 87
GEO 06	GEO 30	GEO 53	GEO 69	GEO 91
GEO 07	GEO 34	GEO 58	GEO 70	GEO 97
GEO 08	GEO 35	GEO 59	GEO 71	GEO 101
GEO 11	GEO 41	GEO 60	GEO 72	GEO 104
GEO 12	GEO 42	GEO 62	GEO 73	GEO 111
GEO 15	GEO 44	GEO 64	GEO 75	GEO 119
GEO 16	GEO 46	GEO 65	GEO 77	
GEO 17	GEO 50	GEO 66	GEO 81	
GEO 19	GEO 51	GEO 67	GEO 84	

QUADRANT: Q3				
---------------------	--	--	--	--

GEO 04	GEO 45	GEO 85	GEO 126	GEO 210
GEO 38	GEO 48	GEO 113	GEO 200	
GEO 39	GEO 63	GEO 114	GEO 201	
GEO 40	GEO 70	GEO 116	GEO 202	
GEO 44	GEO 72	GEO 117	GEO 203	

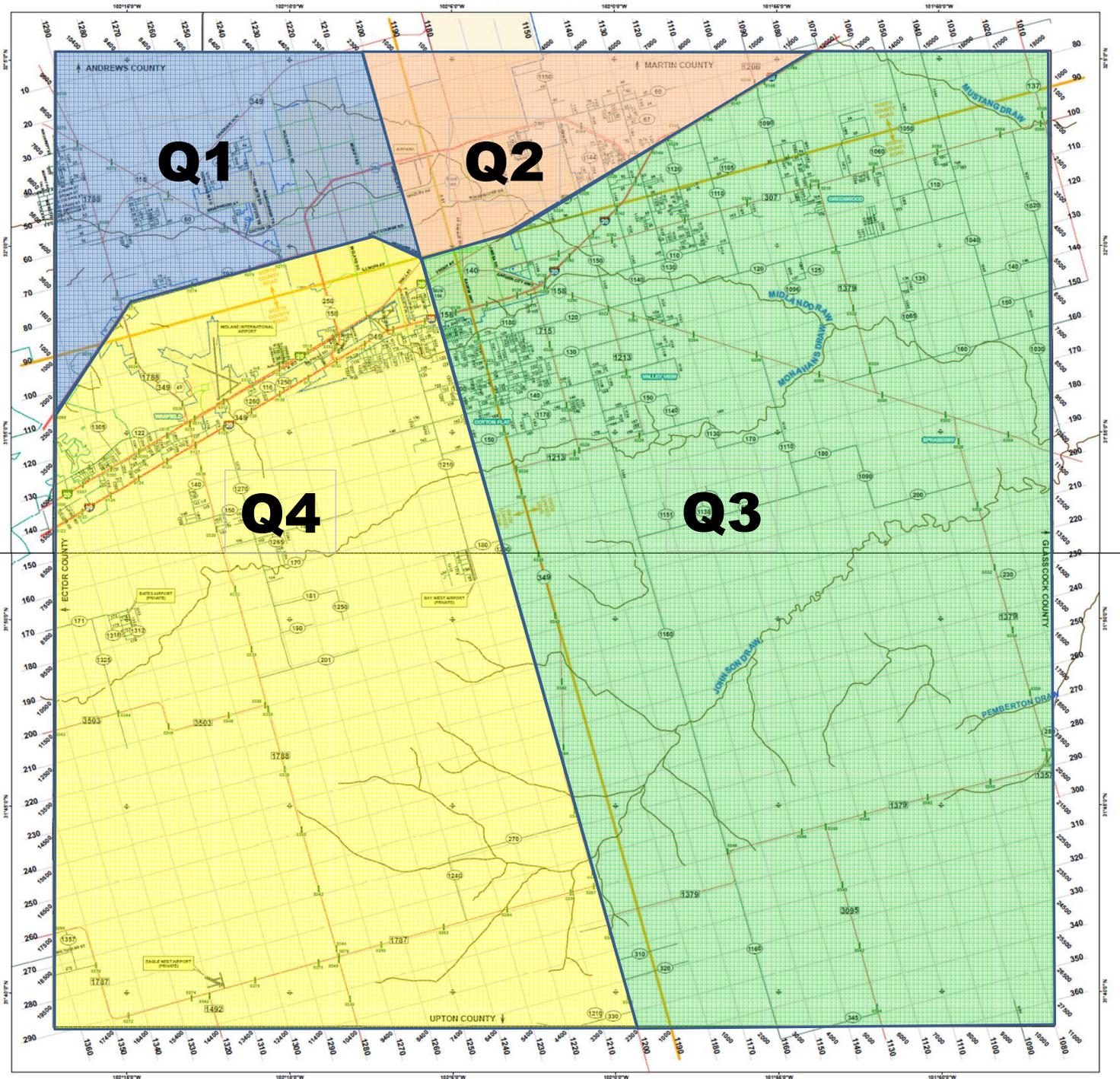
QUADRANT: Q4				
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GEO 02	GEO 18	GEO 43	GEO 100	GEO 121
GEO 04	GEO 20	GEO 44	GEO 109	GEO 123
GEO 05	GEO 22	GEO 47	GEO 110	GEO 125
GEO 10	GEO 23	GEO 57	GEO 112	
GEO 12	GEO 35	GEO 70	GEO 115	
GEO 14	GEO 39	GEO 78	GEO 118	

APPENDIX: F

GEOGRAPHICAL
MARKET
AREAS

MCAD QUADRANT MAP

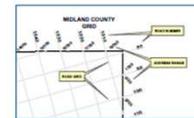


MIDLAND
C.F.S. Division
STEVE BAKER
1/28/2013

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Legend	
	Boundary
	Water Marker
	Midland County North-South East-West Dividing Line
	Artery
	County Road and Address Grid
	Midland City Limits
	Franchise
	Glasscock City Limits
	Interstate and State Highway
	Midland County Boundary



MIDLAND CENTRAL APPRAISAL DISTRICT

Residential: Market Areas (GEOS)

GEO	MAP AREA	2019 - 2020	ISD	CLASS CODE TYPES	CONSTR YR RANGE	ZONING	BOUNDARIES	DESCRIPTION
1	J37, K37	A1,E1	M	RF5-7, RV5-7	R:1983-2010	AE, CE	N:CR41, E:CR1243, S:CR60, W:CR158	1S-SF Res, Urban-Rural Mix, Paved Roads, Mixed Utility, High Uniformity, Mature Development.
2	N35, M34,P35	A1	M	CV3-4, RF2-4, RV5	R:1930-1950; C: 1982	1F1, 1F2, Ind.Comm Mix	N:E. Industrial, E:FM715, S:I-20, W:Midkiff Rd	Urban, Window-Pane Mix. Mixed Low SF Res, Comm, Indus. Paved Roads, Low Uniformity, Non-conforming use. Not H&B use.
3	K36	A1	M	PV5-6, RV4-7,RK5-7	P: 1997-2004; R,K: 1991-2011	AE, 1F1, PD	N:League St, E:Loop 250, S:Hwy 191, W:SH158	1&2S-SF Res, Urban, Mod-High SF Res, Paved Rd/C/G, High Uniformity, Continued development, At H&B use.
4	R34	A1,E1	G	RV4-7	R: 1991-2011	Outside City Limits	N:CR96, E:CR1379, S:CR140, W:CR1130	1S-SF Res, Rural, Planned Development, Paved Roads, High Conformity, Well and Septic, Continued development.
5	F34	A1	M	RV5-7	R: 1995-2003	City of Odessa	MISSION PINES	1&2S-SF Res, Paved/C/G, High Uniformity, Fully Developed,165-Odessa City limits; At H&B Use.
6	M35	A1	M	RV3-7	R: 1947-1967	1F1, PD	N:Golf Course, E:A St., S:Illinois, W:K St.	1S-SF Res, Urban, Moderate-Mature NBH, High Uniformity, Many Remods, Some New Constr. At H&B use
7	M35	A1	M	RV3-6	R: 1950-1960	1F1	N:Golf Course, E:G St., S:Cuthbert, W:Garfield.	1S-SF Res, urban, Mature NBH, High Uniformity, Many Remods, Some New Constr. At H&B use.
8	M36	A1	M	RV4, RV5	R: 1970-1982	PDHD	N:Ventura, E:Dowdle, S:Neely, W:H St.	1S-SF Res, urban, Moderate-Mature NBH, High Uniformity, Townhouse-Conforming use, At H&B use.
9	M36	A1	M	CV3	R: 1969	PDHD	CHANDELLE CONDOS	Multi-level Condominium, Paved/C/G, Mature Units, High Uniformity, Remodel-Quality variance, At H&B use.
10	F33, F34, G33	A1	M	PV4, RV4-7, RK	R: 1992-2011; P: 1985-2003	City of Odessa	MISSION ESTATES	1&2S-SF Res, Paved/C/G, High Uniformity, Fully Developed,165-Odessa City limits; At H&B Use.
11	M36	A1	M	RF5-7, RV5-7	R: 1980-1997	PDHD	N:Cim. Alley, E:L St-alley; S:Southgate; W:Garfield	1&2S-SF High-End Res, Paved/C/G, Conforming Use, Gated Community, At H&B Use.
12	M35	A1	M	RV3-6	R: 1948-1950	1F1, LR1	N:Princeton Ave, E:Garfield, S:Illinois, W:Andrews Hwy.	1S-SF Res, Paved/C/G, Conforming Use, Many Remods, Mixed Use near retail thoroughfares.
13	M36	A1	M	RF4-5, RV4-6	R: 1958-1965	1F1, 1F2, 2F	N: Drainage, E: Garfield, S:Garfield, E:Northrup	1&2S-SF Res, Urban, Moderate-Mature Neighborhood, High Uniformity, Conforming use, At H&B use.
14	H32, H36, G37	A1,A2,E1	M	RF2-4, RV4-6, MH	R: 1950-2010	Outside City Limits	N:CR 60, E:R7465, S:R7462, W:R7451.	1S-SF Res,Rural, Low-Moderate, Paved Roads, Mixed-use Metal Bldg, Mobile Homes, Non-conforming use, Well & Septics,
15	N38	A1	M	RV3 - 5	R: 2014-2018	O1, PDHD	N: Occidental, E: Fairgrounds; S: Arapahoe, W: CR 349	1S-SF Res, Urban, Moderate-Good, Paved Roads, Conforming use, City utilities, Recent new construction.
16	M36	A1	M	RV3-4	R: 1976	PDHD	N:Gulf St, E:G St.-alley, S:Hunble St., W:alley	1&2S-SF Res, Urban, Paved/C/G, High Uniformity, Conforming use, At H&B Use.
18	K35	A1	M	RV4, RV5, RV5F	R: 2015-2018	1F3, PDHD	N: Undeveloped land S. of 191; E: Avalon St. S: Undev. Land, W: Arlington St.	1S-SF Res, Urban, Moderate-Good, Paved Roads, Conforming use, City utilities, Recent new construction.
19	N37B	A1	M	RV4-6	R: 2014-2017		N: Lonestar Addition, E: Utility ROW, S: Alley to South, E: SH 349	1S-SF Res, Urban, Moderate-Good, Paved Roads, Conforming use, City utilities, Recent new construction.
20	L35	A1,B1,B2, B3	M	DV, TV, RV3-4	R: 1959-2010	1F1, PD, TH	N:Princeton, E:Midland Dr., S:Anetta-ally, W:Loop 250	1S-SF Res, Urban, Paved/C/G, Mature NBH, High Uniformity, Conforming use, At H&B Use. Recent new construction.

21	N37B	A1	M	RV4-6	R: 2014-2017	1F3, PDHD	N: Alleyway, E: Utility ROW, S: Mockingbird, E: SH 349 & allyways	1S-SF Res, Urban, Moderate-Good, Paved Roads, Conforming use, City utilities, Recent new construction.
22	L35	A1, B2	M	RF4-5, RV4-6, CV, TV	R: 1957-1984	1F1, 1F2, TH, PD	N:Andrews Hwy, E:Austin St, S:Illinois, W:Delmar	1S-SF Res, Multi-Family, Urban, Paved/C/G, Mature NBH, Moderate Uniformity, Conforming use, At H&B Use, Mix-Use on Throughfares
23	L35, L36	A1	M	RF4-5, RV4-6	R: 1946-2008	1F1, PDMX, MF1, LR1	N:Sinclair, E:Delmar, S:Cuthbert, W: Loop 250	1&2S-SF Res, Urban, Paved/C/G, Low Uniformity, Non-Conforming use, Area in Transition, Min. H&B Use.
24	L36	A1, B2, B3	M	RV3-4, DV5-6, TF5, TV4, PV4	R: 1981-1190; D: 1981-2003; T: 1982	1F1, 1F2, 1F3, PD, MF1, LR2	N:Wadley, E:Mark St, S:Sinclair, W:Loop 250	1&2S-SF Res, Urban, Paved/C/G, High Res Uniformity, Mixed Use Area, Conforming Use, At H&B Use, Major Thourghfare to N and W with Retail Centers.
25	L36	A1,B2,B3	M	DF5, RV4-5,	R: 1981-2002	1F2, PDSC, MF1, LR2, TH	N:Loop 250, E:Midland Dr., S:Wadley, W:Loop 250	1&2S-SF Res, Duplex, Urban, Paved/C/G, High Res Uniformity, Mixed Use Area, Conforming Use, At H&B Use, Major Thourghfare to S and W with Retail Centers.
26	L36	A1	M	CV3	C: 1980	PDSC	FAIRMONT CONDOS	Multi-level Condominium, Paved/C/G, Mature Units, High Uniformity, Conforming use, Adjacent Regional Mall
27	L36	A1	M	RV4-5, DV5-6, TV3-4, PV5	R: 1977-1981, DV: 1982-1997, TV: 1982	1F2, PDSC	N:Loop 250, E:Midkiff, S:allyway, W:Midland Dr.	1&2S-SF Res, Townhouse, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Border drainage ditch, Flood Plane, Near Regional Mall.
28	L36D	A1	M	CV3	C: 1980	MF1	N:Neely, E:Geraldine-ally, S:Gulf St., W:Midland Dr.	Multi-level Condominium, Paved/C/G, Low-Quality Units, Mixed Uniformity, Conforming use, Adjacent Thoroughfare
29	L36	A1, B3	M	RV3-5, DV4-5, TV3-4, CV3	R: 1964-1982, DV: 1982-2002, CV: 1979	1F1, 2F, MF1, LR2	N:Wadley, E:Godrey, S:Andrews Hwy, W:Mark St.	1S-SF Res, Duplex, Condos, Urban, Paved/C/G, Moderate Uniformity, Conforming Use, At H&B Use, Adjacent Retail Thoroughfare.
30	N37	A1	M	RK7	R: 2002-2011	PDHD	N:Solomon, E:Big Spring, S:alley, W:Hollyberry	2S-SF Luxury Res, Urban, Paved/C/G, Mod-High Uniformity, Conforming Use, At H&B Use, Range of Yr-built
31	M36	A1	M	RV4-6	R: 1968-1980	1F1, PDHD	N:Moss St., E:Garfield, S:Wadley, W:Midfff Rd.	1S-SF Res, Multi-Family, Urban, Paved/C/G, High Uniformity, Conforming use, At H&B Use, Flood Plane, Border Drainage ditch
32	L36	A1	M	CV4	C: 1982	PDHD	LAS COLINAS CONDOS	Multi-level Condominium, Paved/C/G, Good-Quality Units, High Uniformity, Conforming use, Adjacent Thoroughfare.
33	L37	A1	M	RV4-6, PV4-5, DV4, CV4	R: 1980-1997, P: 1982-2000, C: 1982	1F1, 1F2, PDHD, MF1	N:Bluebird, E:Midkiff, S:Loop250, W:Midland Dr.	1S-SF Res, Duplex, Condos, Urban, Paved/C/G, Moderate Uniformity, Conforming Use, At H&B Use, Adjacent Retail Thoroughfare.
34	N37	A1	M	RV6-7	R: 1966-1987	AE	N:Solomon, E:alley, S:Meadowpark, W:A St.	2S-SF Luxury-Custom Res, Semi-Urban, Paved, Moderate Uniformity, Conforming Use, At H&B Use.
35	Q36	A1	M	RV6-7	R: 2010-2011	Outside City Limits	N:Loop 250, E:Loop 250, S: Subdiv line, W: 1150	1S-SF High Res, Rural - near Urban, Paved, Moderate Uniformity, Conforming Use, At H&B Use. Outside City.
36	L38	A1	M	RV5-7, PV4-6, RK	R: 1988-2010, P: 1997	1F1, 1F2, PDHD	N:Subdiv line, E:Midland Dr., S:Greentree, W: Holiday Hill	1&2S-SF High Res, Urban, Paved/C/G, Moderate Uniformity, Conforming Use, At H&B Use, Private Club-Golf Course
37	G38	A1, A2, A4	M	RV3-5, RF3-4, MH	R: 1983-2002	Outside City Limits	N:CR 33, E:CR 1297 Half, S:CR 40, W:Midland CL	1S-SF Res, Rural, Paved, Low Uniformity, Conforming Use, At H&B Use, Outside City. SiteBuilt/MH Mixed
38	N33	A1	M	RV4-6, PV4-5, DV4, CV4	R: 1961-2002	Outside City Limits	N: CR 120, E:CR 1180, S:CR 130, W:SH 349	1&2S-SF Res, Rural, Paved, Moderate Uniformity, Conforming Use, At H&B Use, Outside City. Acreage tracks, Mixed Ag Use. Deed Restrictions.
39	VARIOUS	A1, A4, B1	M	RV2-4, RV4, COMM	R: 1980-2010	Outside City Limits	Rural Midland County, S & SW of City.	1S-SF Res, Rural, Mixed Paved/Unpaved, Low Uniformity, Conforming Use, Low H&B Use, Outside City. Mixed Use-Habitations.
40	N33	A1	M	RV4-5, DV5-6, TV3-4, PV5	R: 1970-2008	Outside City Limits	N:CR 123 1/2, E:Subdiv Line, S:CR 130, W:CR 1180	1S-SF Res, Rural, Paved, Moderate Uniformity, Conforming Use, At H&B Use, Outside City. Acreage tracks, Deed Restrictions
41	P36	A1, E1	M	RV4-7, RF4-6	R: 1978-2008	Outside City Limits	N:Loop 250, E:Todd Rd., S:Wadley-line, W: Cynthia	1S-SF Res, Rural, Paved, Moderate Uniformity, Conforming Use, At H&B Use, Outside City. Acreage tracks, Deed Restrictions

42	M36, L37, L38	A1	M	RV5, PV4	R: 2005-2011, P: 1995-1997	1F1, 1F2, AE, PDHD	N:Hilltop-ally, E:Oriole, S:Briarwood, W:Holiday Hill	1S-SF Mod-High Res, Rural, Paved/C/G, High Uniformity, Conforming Use, At H&B Use. Outside City.
43	F33	A1	M	RV4-5, DV4, MH	R: 1977-2010	Outside City Limits	N:CR 122, E:CR 1311-ally, S:Hwy 80, W:Faudree Rd	1S-SF Res, Rural, Paved, Low-Moderate Uniformity, Conforming Use, Low H&B Use, Outside City. Mixed Use, SiteBuilt/MH Mixed.
44	Multi-Sections	ALL	M, G	VARIOUS CLASS	VARIOUS AGE	Outside City Limits	ALL UNPLATED RURAL MIDLAND COUNTY	1&2S-SF Res, Rural, Paved-Unpaved, Low Uniformity, Mixed Use, Mixed H&B Use, Outside City. Various Acreage tracks, Mixed Ag Use. Deed Restrictions.
45	M34	A1, A3, A4	M	RF2-4, RV4-5, MH	R: 1940-2011	Outside City Limits	N:PL of CR 114, E:CR 1192, S:CR 117, W:CR 1200.	1S-SF Low Res, Rural, Paved, Low Uniformity, Conforming Use, Low H&B Use, Outside City. Mixed Use, Various parcel size, SiteBuilt/MH Mixed.
46	R34, R35, Q35, R35, U34, Q37	A1, A2, A4, E2	G	RF3-4, RV3-5, MH	R: 1940-2011	Outside City Limits	Various Isolated Subdivisions predominately within GISD.	1S-SF Low-Avg Res, Rural, Paved, Moderate Uniformity, Conforming Use, High H&B Use, Outside City. Mixed Use, Various parcel size.
47	K36, K37	A1, A4, E1, E2	M	RF4-7, RV3-6	R: 1973-2011	CE	N:PL of Gladiola, E:PL of RoadRunner, S:PL of Desert Wind, W:CR 1247.	1S-SF Low-Avg Res, Rural, Paved, Moderate Uniformity, Conforming Use, High H&B Use, Outside City. Mixed Use, Various parcel size.
48	T34	A1	G	RV4-5	R: 2001-2003	Outside City Limits	N:Of CR104 and E:Of CR 1085 near GISD facilities	1S-SF Avg-Good Res, Rural, Paved, High Uniformity, Conforming Use, At H&B Use, Outside City.
49	M36	A1	M	RV4-5	R: 1980-1985	PDHD	N:Drainage ditch, E:Quailpoint-ally, S:Wadley, E:Ward St.	1S-SF Ave-Good Res, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Patio Homes
50	N37	A1	M	PV4-5	P: 1981-1998	PDHD	N:PL Subdiv, E:Masters Golf ditch, S:Loop 250, W: A St.	1S-SF Good Res, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Many Zero-lot lines.
51	N37	A1	M	PV5-7, RK6	P: 1994-2004	AE, PDHD	N:Mockingbird, E:Big Springs, S:Solomon, E:PL of subdiv.	1&2S-SF High & Custom Res, Urban, Paved, Moderate-High Uniformity, Conforming Use, At H&B Use, Various parcel size from custom large to zero lot line.
52	L36B	A1	M	PV3-4, RV4-7, TV	P: 1981-1999 R: 1980-2004 TV: 1981-1982	PDHD, TH	N:Northfiled-alley, E:Trinity-ally, S:Wadley, W:Greenbrier	1&2S-SF High & Custom Res, Urban, Paved, Moderate-High Uniformity, Conforming Use, At H&B Use, Various parcel size from custom large to zero lot line.
53	L37B, L37C, N37C	A1	M	RV5-7, RK6-7	R: 1996-2011	PDHD	N:Evans Dev., E:PL of subdiv, S:Mockingbird, W:Midland Dr.	1&2S-SF High & Good to VG Res, Urban, Paved, Moderate-High Uniformity, Conforming Use, At H&B Use.
54	N37C	A1	M	RV4-RV6	R: 1955-2011	1F1, AE	N:Solomon, E:hollyberry, S:Carol-alley, W:Pineneedle	1S-Avg Res, Urban, Paved/C/G, Moderate Uniformity, Conforming Use, At H&B Use, Various parcel size, Predominate Ranch design.
55	M36A	A1, B2, B3	M	RV4-5, DF4-5, DV4-5, TF, TV	R: 1967-1982 D: 1977-1981 TF: 1980-1982 TV: 1976-1977	PDSC, PDHD	N:Lanham-alley, E:Garfield, S:Maxwell, W:Midkiff	1S-SF Ave-Good Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use, Includes Patio Homes. Major shopping centers to North. College to East.
56	L36D, L36B, M36C	A1, B2, B3	M	RV3-5, DV5-6, PV4-5, TV3-4	R: 1950-2000 D: 1968-1977 TV: 1983	1F1, 1F2, PDHD, MF1, LR2	N:Woodhaven-ally, E:Midkiff, S:Andrews Hwy, Godrey	1&2S-SF Avg-Good Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use. Shopping, Retail, Grocery to North
57	M35A, M35C, L35B,	A1, B2, B3	M	RF2-6, DF3-5, DV3-5, TV3	R: 1949-1959 D: 1952-1975 TV: 1981-1982	1F1, 1F2, PDHD, MF1, MF2, LR2	N: Andrews Hwy, E:Garfield, S:Illinois, W:Midland Dr.	1S-SF Fair-Avg Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use, Post WWII boom housing. Near older shopping centers. Central city.
58	M35A, L36D,	A1, B3	M	RV3-6, RF4-5, DV5-6, PV4-5	R: 1950-1976 P: 1976-1979 D: 1976-1979	1F1, PDHD, PDSC, O1, LR2	N:Golf Course, E:Sparks-alley, S:Andrews Hwy, W:Midkiff	1S-SF Fair-Good Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use, Border major thoroughfare to South. Central City.
59	M35A, M35C, M35D	A1	M	RV4-7, PV5, TV3-4	R: 1955-1988 P: 1976-1979 TV: 1979-1981	1F1, 1F2, PDHD	N:Sinclair, E:Ainslee, S:Lockheed-alley, E:Murray	1&2S-SF Age-Good Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use, Center City
60	M36B, M36D	A1	M	RF5-6, RV5-7	R: 1960-1990	1F1, MF1, MF2, LR2, PDHD	N:Crestview-alley, E:Foudation-alley, S:Hanover-alley, W:Garfield	1S-SF Good-Excellent Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use, Near Midland College, Near major thoroughfare.
61	M36D	A3	M	RV5-6	R: 1966-1988	1F1	Oaklawn Park Addition	1S Good Res, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use.
62	M35B, M36D	A1	M	PV4-5, RV3-6, TV5	R: 1955-2004 P: 1972-1978 TV: 1971-1972	1F1, PDHD	N:Wadley, E:A Street, S:Douglas, W:Garfield	1S-SF Avg Res, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use. Inner City near Scharbaur Draw Drainage.

63	M35C, L35D, L34B	A1, A4	M	RF2-4, RV2-4	R: 1946-1984	1F1, 1F2, PDCC	N:Illinois Ave, E:Andrews Hwy., S:Anetta-alley, W:Midland Dr.	1S-SF Low-Avg Res, Urban, Paved/C/G, Moderate-Uniformity, Conforming Use, At H&B Use. Large inner city developments, Post WWII boom housing.
64	M37D	A1	M	PV4-5, RV4-5,	R: 1981-1990 P:1978-1981	1F1, PDHD,MF1	N: Alley Way, E:N. A. St., S:W.Loop 250, W:Los Alamitos Alley	1&2S-SF Good to VG Res, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, N. Loop 250 Access.
65	M37C, M37D	A1, B3	M	RV4-5	R: 1987-1993 B3: 1984	1F2, 1F3, PDSC, O1	N:Bluebird, E:Midkiff, S:Loop250, W:Midland Dr.	1&2S-SF Good to VG Res, Few Duplex, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Adjacent Retail Shopping and Office.
66	M36D	A1	M	RV4-6, PV4-5	R: 1954-1965 PV: 1974- 1977	1F1	N:Nelly, E:N Street Alley, S:Golf Course Rd, W:Garfield	1&2S-SF Average to Good Res, Few Patio Homes, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Mature Neighborhood, center city location.
67	M36D	A1	M	RV4-5	R: 1958-1968	1F1	N:Cimmaron Alley, E:H St.,S:Neely Alley, W:L St. Alley.	1S-SF Average to Good Res, Urban, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Mature Neighborhood, Adjacent City Park.
68	M35B	A1	M	RV4-7, RF3-5	R: 1946-1956	1F1, 1F2	N:Golf Course, E:D St., S:Michigan, W:H St.	1S-SF Average to Good Res, Mixed Quality, Urban, Paved/C/G, Med- High Uniformity, Conforming Use, At H&B Use, Mature Neighborhood.
69	N36C, M36D	A1, B2, B3	M	RV3-4, DV5-6, TV3-5	R: 1948-1976 RN: 2003- 2009 TV: 1980-81	1F1, 1F2, LR2, PDHD	N:Dengar, E:Pecos, S:Boyd St. Ally, W:C St.	1S-SF Fair to Avg Res, Mixed Type Duplex/Townhouse, Urban, Paved/C/G, Med-High Uniformity, Conforming Use, At H&B Use, Adjacent Multi-Family and Retail Center.
70	N34A, M34B, M35D, N35A	A2, A4	M	RF3-4, RF3-4, MH	R: 1938-1965	1F1, 1F2, 1F2, PDHD, LR, O1	N:Wadley Ave, E:Lamesa Rd., S:Gist St., W: Big Spring	1S-SF Low to Avg Res, Mixed Quality and Age, Urban, Paved/C/G, Medium Uniformity, Conforming Use, Large Area of East & South city, Adjacent to Retail and CBD.
71	N35A, N36C	A1,B2, A4	M	RF3-4, RF3-4, CV3, DV4	R: 1920-2000 DV: 1980- 1982 CV: 1963	1F1, 1F2, MF1, PDHD	1) N:Wadley, E:Loma, S:Scharbauer, W:Pecos. 2)N:Cemetery, E:Pecos, S:Kansa, W:A St.	1S-SF Low to Avg Res, Duplex, Condos, Mixed Age and Quality, Paved/C/G, Medium Uniformity, Conforming Use, Multi-Area, Mature Neighborhood.
72	N35B, P36C, N35B, N35D	A1, A4, B2	M	RV2-4, RF2-4, DV, MH, TV	R: 1940-2008 DV: 1950- 1955	1F1, 1F2, 2F, MF1, MF2	N:Wadley, E:Fairgrounds, S:Highway 158, W:Lamesa	1S-SF Low to Avg Res, Mixed Quality and Age, Urban, Paved/C/G, Medium Uniformity, Conforming Use, Large Area of East & South city, Adjacent to Retail and CBD.
73	N37B	A1,A2	M	RV3-4, MH	R: 1981-2009	1F3, AE, PDHD, LR	N:Apraphoe, E:Fairgrounds, S:Pueblo SL, W: SH 349	1&2S-SF Avg Res, Mixed Quality, Urban-Rural, Paved, Medium Uniformity, Conforming Use, Perimeter Subdivision NE of City.
74	M37C	A1	M	RV4-5, PV4	R: 1979-2003 PV: 1980- 1982	1F1, 1F2, PDHD, PDSC	N: Bluebird, E:Garfield, S:Faulkner, W: Alley of Eastview	1S-SF Avg-Good Res, Urban, Paved/C/G, High Uniformity, Conforming Use, Nearby Multi-Family Apartments, Adjacent Loop 250 Retail Zone.
75	M36D	A1	M	RV4-6	R: 1956-1975	1F1	N:Seaboard Ally, E:I St., S:Scharbauer, W:L St. Alley	1S-SF Avg-V.Good Res, Mixed Quality, Urban, Paved/C/G, High Uniformity, Conforming Use, Mature Neighborhood.
76	L36A	A1	M	RV3-5, TV4	R: 1981-2002	1F2, 1F3, 2F, MF1, TH, LR1	N:Briarwood, E:Amstad Alley, S:Loop 250, W:HolidayHill	1S-SF Avg-Good Res, Townhouse, Urban, Paved/C/G, High Uniformity, Conforming Use, Adjacent Multi-Family and Loop 250.
77	N36A	A1	M	RV3-4	R: 19881-2006	1F2, LR2	N:Loop 250 E, E:Lamesa, S:Grenshaw, W:Big Spring	1S-SF Fair-Avg Res, Paved/C/G, High Uniformity, Conforming Use, Adjacent Retail and Major Thoroughfare.
78	L34A	A1	M	RF2-3, RV3-4	R: 1959-1982	1F1, MF2	N:Comanche Ally, E:Burchhill, S:Seminole, W:Subd PL	1S-SF Low-Avg Res, Paved/C/G, Medium Uniformity, Conforming Use, Adjacent Business, Mature Neighborhood.
79	L37A	A1	M	RV4-7, RF5-7	R: 1981-2006	PDRC, PDHD, PDOC	N:Green Tree, E:Midland Drive, S:Wood, E:Sequoia	1&2S-SF Avg-V.Good Res, Custom Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use, Various parcel size, County Club and Golf Course Access.
80	L37C	A1	M	RV5-6	R: 1988-2006	1F1, 1F2	N:Hilltop Ally, E:Midland Drive, S:Rosewood Alley, W:Oriole	1&2S-SF Good Res, Urban, Paved/C/G, Very High Uniformity, Conforming Use, H&B Use, Up-Scale Neighborhood.
81	M37D	A1	M	RV6-7, RK	R: 1976-2004	1F1	N:Mockinbird, E:A St., S:Castelford Alley W:Subd PL	1&2S-SF Good-Excellent Res, Custom Res, Urban, Paved, Moderate- High Uniformity, Conforming Use, At H&B Use, Various parcel size, Gated Community, Up-Scale Neighborhood
82	L36B	A1	M	RV5-6	R: 1986-1993	1F1	N:Meadowridge Ally, E:Midkiff, S:Woodhaven Ally, W:Midland Drive	1&2S-SF Good Res, Urban, Paved/C/G, Moderate-High Uniformity, Conforming Use, H&B Use, Up-Scale Neighborhood.
84	M37D	A1	M	RV5-6, RF5-6	R: 1976-1987	PDHD	N:Saddle Club, E:A St., S:Ashdown Alley, W:Subd PL	1&2S-SF Good-V.Good Res, Urban, Paved, Moderate-High Uniformity, Conforming Use, H&B Use, Up-Scale Neighborhood.

85	M35B, M35D	A1, B2	M	RV2-4, RF2-4	R: 1940-1960	1F1, 2F, 1F3, PDTD, LR	N:Cenetry, E:Carrizo, S:Front St., W:Garfield	1S-SF Low-Avg Res, Paved/C/G, Medium Uniformity, Conforming Use, H&B Use, Mature Neighborhood, Adjacent Business and Retail.
86	M36C, L36D	A1	M	RV4-6	R: 1957-1970	1F2	N:Neely, E:Whitney Ally, S:Golf Course, W:Upland.	1S-SF Avg-Good Res, Paved/C/G, Med-High Uniformity, Conforming Use, H&B Use, Mature Neighborhood.
87	L37A, M37D, N37A	A1, A4	M	RV4-7, RK	R: 1950-2012	AE, PDHD	N:Wood St., E:Todd Rd., S:Bluebird, W:Oriole	1&2S-SF Avg-Excellent Res, Custom Res, Mixed Quality, Urban, Paved, Low Uniformity, Conforming Use, Moderate H&B Use, Wide Variation in parcel size, North part of city.
88	L37A	A1	M	RV4-5	R: 1988-2006	1F1, 1F2	N:Sherwood Alley, E:Oriole, S:Widner, W:Holiday Hill	1S-SF Avg-Good Res, Paved/C/G, High Uniformity, Conforming Use, At H&B Use.
89	L37A	A1	M	RV4-7	R: 1959-2010	AE	N:Widner, E:Midland Drive, S:Mockingbird, W:Holiday Hill	1&2S-SF Avg-Excellent Res, Mixed Quality, Urban, Paved, Low Uniformity, Conforming Use, Moderate H&B Use, Wide Variation in parcel size. Mixed Ag Use Parcels
90	K36	A1	M	RV4-5	R: 2000-2011	1F3, PDHD	N:Los Patios Alley, E:Holiday Hill, S:San Saba Alley, W: Subd PL.	1S-SF Avg-Good Res, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Adjacent to Drainage Field/Park
91	M36D	A1	M	RV4-7, PV5	R: 1956-2011	1F1	N:Neely, E:L St. Alley, S:Scharbauer, W:N. St. Alley	1&2S-SF Avg-Excellent Res, Mixed Quality, Urban, Paved/C/G, Moderate Uniformity, Conforming Use, H&B Use, Exclusive Neighborhood.
99	M36C, M35A,	A1	M	RV4, RF4	R: 1975-1979	1F1	N:Fannin, E:Northrup, S:Golf Course, W:Spartan	1S-SF Avg Res, Paved/C/G, High Uniformity, Conforming Use, At H&B Use.
100	K35	A1	M	RV4-5	R: 2011	PDHD	Legends Park Subdivision	1S-SF Avg Res, Paved/C/G, Very High Uniformity, Conforming Use, At H&B Use, Adjacent to City Ball Park, Commercial/Retail, Track Builder Construction
101	N37D	A1	M	RV3-4, TV4, TV4F, TV5	R: 2011-2017	1F3, TH	N: Commercial Storage, E: Acreage, S: Acreage, W: Lamesa Rd.	1S-SF Avg Res, Townhomes, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use,
102	M37A	A1	M	RV5-7	R: 2012-2018	PDHD	N: Utility easement/acreage, E:Acreage, S: Mockingbird, W: Whitman-Utility easement.	1S-SF Avg Res, Good-Excellent, Paved/C/G, Moderate-High Uniformity, Conforming Use, At H&B Use, Large site tracks.
103	M37C	A1, B1	M	RV4	R: 2007-2010	O1, 1F1	N: Bluebird St, E: Utility Esmt. S: Apartment Complex, W: Midkiff Rd	1S-SF Avg Res, Avgerage, Paved/C/G, High Uniformity, Conforming Use, At H&B Use.
104	N37C	A1, C1	M	RV6, RV7, RV7F	R: 2010-2017	CE	N: Mockbird St, E: Missions Prop, S: Solomon St, W: Drainage	1S-SF Avg Res, Larger Homes, Excellent Quality, Paved/C/G, High Uniformity, Conforming Use, At H&B Use, Larger home tracks.
105	K36	A1	M	RV4	R: 2003-2012	PDHD	N: Carmel Alley, E: Holiday Hill Rd, S: Park-basin, W: Crowley St.	1S-SF Avg Res, Average, Paved/C/G, High Uniformity, Conforming Use, At H&B Use.
106	K36	A1	M	RV4, RV5, RV5F	R: 2010-2017	1F3, PDHD	N: Undev acreage, E: Crowley, S: Wadley Ave, E: County Sky Est.	1S-SF Avg Res, Avgerage-Good, Paved/C/G, High Uniformity, Conforming Use, At H&B Use.
107	K36	A1	M	RV4-5	R: 2004-2015	TH, PDHD	N: Frio, E: Holiday Hill Rd, S: Rio Grande north alley, W: Crowley	1S-SF Avg Res, Average-Good, Paved/C/G, High Uniformity, Conforming Use, At H&B Use.
108	H37	A1, A2, A4, F1	M	RF2, RV3-4, MH, COMM	R: 1950-2013	Outside City Limits	N: Acreage south of CR50, E: CR1270, S: CR60, W: CR1275	1S and 2S-SF Low-Avg Res, Urban, Paved, Moderate-Low Uniformity, Mobile Homes mixed, Outside City. Mixed Use, Various parcel size.
109	L34C	A1, A2, F1	M	RF3-4, RV6, MH	R: 1940-2009	1P1, MH, Part Outside City	N: I-20, E: Section line, S: CR118, W: CR1223 Hale	1S and SF Low-Avg Res, Rural-Urban mix, Moderate-Low Uniformity, High-mix Mobile Homes, Non conforming Use, Various parcel size.
110	L32	A1	M	RV4-5	R: 2016-2017	Outside City Limits	N: CR 140, E: CR1212, S: Prop Line, W: Prop Line (acreage)	1S-SF Res, Rural, Good, Paved/C/G, High Uniformity, Conforming Use, At H&B Use. Newer construction, Planned Development
111	Q35, Q36	A1, A2, A4, E2	M	RF3, RV3-4, MH	R: 1925-2012	Outside City Limits	N: Property Line acreage, E: CR1144, S: North of Hwy 80, W: Elkins Rd	1S and SF Low-Avg Res, Rural, Urban, Moderate-Low Uniformity, High-mix Mobile Homes, Non conforming Use, Various parcel size.
112	F31	A1, A2, E1	M	RF1-4, MH	R: 1980-2005	Outside City Limits	N: CR 171, E: CR1310, S: Section line, W: Section Line	1S and 2S SF Avg-Good Res, Rural, Moderate Uniformity, Mobile Homes, Conforming Use, Various parcel size.

113	N34A	A1, A2, E2, B2	M	RF1-4, RV2-4, MH, DV	R: 1947-2002	PDHD	N: Hicks St., E: Terrell, S: I-20, W: Baird St.	1S and SF Low-Average Res, Urban, Moderate-Low Uniformity, High-mix Mobile Homes, Non conforming Use, Various parcel size. Rental-mix
114	N33	A1, A2, A4, E1, E2, MH	M	RF1-4, RV2-4, MH, DV	R: 1950-2012	Outside City Limits	N: CR 130, E: CR 715, S: CR 135, W: CR 1180	1S and 2S SF Low-Average Res, Rural, Low Uniformity, Mobile Homes, Conforming Use, Various parcel size, Raw land sites
115	J31	A1, A2	M	RV4, RV4F, RV5	R: 1985-2014	Outside City Limits	N: Property line, E: Property line, S: CR 170, W CR 1265	1S and 2S SF Low-Average Res, Rural, Moderate Uniformity, Mobile Homes, Conforming Use, Various parcel size, 1+ Acre sites
116	M32, M33	A1, A2, A4	M	RF3-5, MH	R: 1950-2000	Outside City Limits	N: Property line, E: CR 1195, S: CR 139, W: CR1200-Cotton Flat	1S and 2S SF Low-Average Res, Rural, Low-Moderate Uniformity, Mobile Homes, Conforming Use, Wide-Variou parcel size, sub acre to 5 acre sites
117	N33	A1, A2, A4	M	RF2-5, RV4, MH	R: 1977-2010	Outside City Limits	N: CR 135, E: CR 1180, S: Property line, W: CR 1185	1S and 2S SF Low-Average Res, Rural, Moderate Uniformity, Mobile Homes, Conforming Use, Uniform parcel size, typical 1/2 acre.
118	F33	A1	M	RV5, RK5	R: 2013-2016	City of Odessa	N: Eastridge Rd, E: Faudree Rd, S: Property line, W: Ector County Line	1S SF Good Res, Urban, High Uniformity, Conforming Use, Highest & Best use,
119	R37	A1, A2, A4	G	RF3-4, MH	R: 2010-2014	Outside City Limits	N: CR 50, E: Section line, S: CR 65, W: CR 1125	1S SF Low-Average Res, Rural, Unpaved roads, Moderate Uniformity, Mobile Homes, Mixed Use, Parcel size typical 2 acre.
120	H36	A1	M	RF5, RV5	R: 2009-2017	CE, Part Outside City Limits	N: Property line, E: CR 1271, S: CR78-Sinclair, W: Holdridge/1280	1S and 2S SF Average-Good Res, Rural, High Uniformity, Conforming Use, Uniform parcels, Part with city services, New home sites
121	G34	A1	M	RV4-5, RV5F	R: 2015-2017	City of Odessa	N: Section Line, E: CR1305, S: acreage, W: Mission St.	1S and 2S SF, Good-Very Good Res, Rural, High Uniformity, Conforming Use, Uniform parcels, Parved Streets, City services, New home sites
123	L30	A1, E1	M	RV5-7, RV5-6F	R: 1986-2010	Outside City Limits	N: CR 180, E: CR 1210, S: Section line, W: Section line	1S and 2S SF Average-Good Res, Rural, Moderate Uniformity, Conforming Use, Uniform parcels, Ranchett track sizes 2.5 to 5 acres
124	H37	A1, A2	M	RF1-5, RV3-4, MH	R: 1920-2012	Outside City Limits	N: CR 50, E: CR 1270, S: CR 60, W: Section Line (Craddick hwy)	1S and 2S SF Low-Average Res, Rural, Unpaved roads, Moderate Uniformity, Mobile Homes - RV mixed, Established Homes, 2+ acres parcels.
125	F33F	A1	M	RV6-7, RK6-7	R: 2007-2012	City of Odessa	N: Property line, E: Faudree Sec line, S: Fairway, W: Acreage-Ector County Line	1S and 2S SF, Good-Very Good Res, Urban, High Uniformity, Conforming Use, Uniform parcels, Parved Streets-Curb-Gutter, City services, Contained subdivision, New home sites
126	Q33	A1, A2, A4	M	RF4, RV5, MH	R: 2008-2014	Outside City Limits	N: Section Line, E: Sec Line (CR1130, S: Property Line, W: CR 1140	1S and 2S SF Low-Good Res, Rural, Moderate Uniformity, Conforming Use, Mobile Homes, Similar parcel size, Contained subdivision.
200	R35, R35J	A1, A2	G	RV4-5, MH	R: 1977-2000	Outside City Limits	N: CR 90, E: CR 1127 PL, S: CR 96, W: CR 1130.	1S-SF Res, Rural, Average, High Uniformity, Paved, Conforming Use, at H&B Use, Outside City, Planned Subdivision, Larger Tracks, Nearby School.
201	T34	A1	G	RV3-4	R: 1982-2000	Outside City Limits	N: CR 104 PL, E: CR 1379, S: CR 109 PL, W: CR 1084.	1S-SF Res, Rural, Average, High Uniformity, Paved, Conforming Use, at H&B Use, Outside City, Planned Subdivision, Nearby School.
202	U34	A1	G	RV4-5	R: 2007-2011	Outside City Limits	N: RD 111 PL, E: RD 1066 PL, S: SUB DIV PL, W: RD 1069.	1S-SF Res, Rural, Average, High Uniformity, Paved, Conforming Use, at H&B Use, Outside City, Planned Subdivision, Area Oil Industry Facilities.
203	T34, U34	A1	G	RV4-6, RF4-5	R: 1999-2011	Outside City Limits	N: SH 307, E: CR 1060, S: SEC LINE, W: CR 1070.	1S-SF Res, Rural, Avg-Good, High Uniformity, Paved, Conforming Use, at H&B Use, Outside City. Planned Subdivision.
210	R34	A1	G	RF2, RV4, RV5, RV6F, RV6	R: 2015-2018	Outside City Limits	N: CR 110, E: CR 1120, S: Undeveloped, W: Undeveloped	1S-SF Res, Rural, Low-Good, Mixed Uniformity, Paved, Conforming Use, at H&B Use, Outside City. 3 ac +/- tracts, Planned Subdivision.

MIDLAND CENTRAL APPRAISAL DISTRICT

Commercial: Market Areas (CMA) Zones

CMA	AREA DESCRIPTION	2019 - 2020	ZONING	IMPROVEMENTS	ECONOMIC FACTORS
1	Central Downtown Business District: Consist of the area comprising the Down Town Management District, and the TIRZ district.	OFFICE, RETAIL, MULTI-FAMILY, RETAIL, FINANCIAL	C1	Public Buildings, Hotels, Small-Large Multi-Story Office Bldgs., Light Retail, Few Restaurants, Banks.	Metropolitan CBD area consisting of businesses accessing predominantly oil and gas industry clients, public records, and governmental services. Food, retail, and financial business as needed to service area occupants.
2	Big Spring Street Commercial Zone: A primary thoroughfare bordering either side of North Big Spring Street. From the CBD to N. Loop 250.	RETAIL, OFFICE, FAST FOOD, FINANCIAL	LR2, O1, O2, PDMX, PDTD	Private Office Buildings, Fast Food Restaurants, Reside-Office Conversions, Markets, Smaller Retail, Convenience Stores, Financial-Banks	Mixed commercial use with wide variance to quality, size, and age of structures. Older and newer retail and office serving entire city area. Borders older mid-low quality residential neighborhoods extending to CBD.
3	Inter-City Commercial Zone: All areas inside city limits not located in another designated CMA zone.	RETAIL, OFFICE, BANKING, SERVICE	LR1, LR2, MF1, PDHD, TH, O1	Interior Retail Centers, office, and Service Bldgs. Wide variety of structure size, type, and age.	Properties serving local to city-wide consumers. Usually clustered on or near major interior intersections. Includes inside-city planned districts not located in other zones.
4	North Loop 250 Commercial Zone: Consisting of larger retail, restaurant, and a Regional Mall. Minimum office space.	MALL, VARIOUS RETAIL, SHOPPING CENTER, FAST FOOD, APARTMENT	LR2, O1, MF1, PDMX, PDSC, AE	Regional Mall, Shopping Centers, Big Box Retail, Apartments, Restaurant, Fast Food, Convenience Stores.	Predominately Retail market area, Regional Mall, Big Box Retail, and Shopping Centers occupy this area and service the entire city and PB region. Access to regional airport and good quality bordering residential neighborhoods.
5	Andrews Highway Commercial Zone: Extending from Hospital at Wall St. High Traffic thoroughfares in central part of City of Midland	RETAIL, SHOPPING CNTR, FAST FOOD, MEDICAL OFFICES, HOSPITAL	LR2, MF1, PDMC, PDSC, PDHD	Small-Medium Retail and Stores, Fast Food, Restaurants, Small-Med Offices, Older Shopping Center, Regional Hospital, Medical offices.	Mixed commercial use area with high concentration of fast food and retail. At East end high concentration of medical facilities and regional Hospital. Borders older low-high quality residential neighborhoods. Major thoroughfare.
6	South Loop 250 Commercial Zone: Bordering and S. of Hwy 191 along S. Loop 250 extending to Hwy 80.	AUTO DEALER, RETAIL, APARTMENT, RESTAURANT, STORAGE BLDG.	LR2, MF1, PDMC, PDSC, PDHD	Consist of Big Box retail, Hotel and Motel properties, Shopping Centers, and Auto Dealers. In addition, storage facilities, convenience stores, and Apartments.	Area serves Odessa and entire PB region. New and developing commercial structures bordering S. Loop 250. Regional traffic generated by nearby Stadium Ballpark. Track-built residential development in area.
7	Hwy 80 South City Commercial Zone: Southern portion of the City of Midland bordering Hwy 80, between Loop 250 and Fairgrounds Road.	OFFICE, SMALL RETAIL, AUTO REPAIR, LIBRARY, SERVICE CENTERS	LI, HI, IP3, BP, O2, LR1-2-3, C3, PDRC, AE, PDSC	Various Commercial and Industrial Properties. Lower offices. Auto service facilities, Auto dealers, Oil service facilities.	Includes multiple "window-pane" areas outside city limits. Area has older commercial structures. Various service companies facilities. Primarily services Midland community and local neighborhoods.
8	Interstate -20 East Commercial Zone: Area bordering I-20 extending from Agri Road to SH 158. Includes Industrial Park along S. Loop 250, S of Hwy 80.	INDUSTRIAL, RETAIL, APARTMENTS, CONVENIENCE, MUSEUMS, VISITORS	BP, LR2, PDID, MF1	Industrial zone at West end. Wal-Mart Supercenter, Regional shopping centers, Regional museums and County Convention facility, and Apartments.	Retail centers at major intersections. Area includes conventions, visitors centers and regional museums. Accessed by travelers along I-20. Industrial facilities and some multi-family units.
9	Interstate -20 West Industrial Zone: Area west of Agri Road along both Hwy 80 and I-20, extending to west county line of Midland County near Odessa.	INDUSTRIAL, OIL SERVICE	LI, PDSC, PDRC, BP	Heavy concentration of Commercial and Industrial facilities serving the oil and gas industry. Vacant-to be developed sites, Drilling rig, and Manufacturing.	Industrial area between Midland and Odessa bordering Interstate-20. Populated by service and manufacturing businesses. Regional traffic from entire Permian Basin area. Train access in places. Near International airport.
10	SH191 - Airport Commercial Zone: Entire area bordering Hwy 191 to North, and Hwy 80 to South, extending from S. Loop 250 to the western county line.	CHURCH, STORAGE, INDUSTRIAL, OFFICE, AIRPORT	IP2, LI, PDTD, LR2	Metal Industrial buildings, Churches, Strip Office Centers, Large storage facilities, Retail and Museum.	Midland International airport at center of area. Hwy 191 to North comprised by industrial service businesses and churches. Hwy 1788 to the East and Hwy 80 to South. Sparse residential. Location of Commemorative Air Force.
11	Outside-City Commercial Zone: Comprising all areas outside of Midland City limits located within the MISD jurisdiction.	ALL COMMERCIAL IN MISD NOT LOCATED IN ZONES 1-10.	OUTSIDE CITY LIMITS	Various Commercial and Industrial Properties	Variety of mixed commercial and industrial properties. Various quality and type including convenience stores, metal buildings, and industrial installations.
12	Greenwood Commercial Zone: Comprising all areas outside of Midland City limits located within the GISD jurisdiction.	ALL COMMERCIAL IN GISD JURISDICTION	OUTSIDE CITY LIMITS	All Commercial, Industrial, Retail, Office, and Public Facilities.	Mixed commercial and industrial properties, including oil industry fixtures to local convenience stores. Sporadic quality and location, serving local residents to rural GISD neighborhoods.

APPENDIX: G

VALUATION CONTRACTOR'S

2019-2020

REAPPRAISAL PLAN



June 18, 2018

To: Appraisal Services Clients

Re: Reappraisal Plan for Tax Years 2019 and 2020

Enclosed is a copy of the Reappraisal Plan for Tax Years 2019 and 2020; and, this is required by S.B. 1652 passed in May 2005. This Senate Bill enacted by the Legislature of the State of Texas requires the Board of Directors of an Appraisal District to develop, biennially, a written plan for periodic reappraisal of all property within the District bound areas according to requirements of the Tax Code Section 25.18.

Since our firm provides appraisal services to you for certain property types, we are providing you with a copy of information that addresses all of the complex property services we provide. The enclosed Reappraisal Plan includes these services: mineral interest, industrial, utility and personal property appraisal and appraisal-related materials for your plan. Appraisal services for some of these property types may not be applicable to your Appraisal District.

Should you want to discuss the content of this report, please call Engineering Services at our Fort Worth Office toll-free number which is 1-800-880-7861.

Very truly yours,

Victor W. Henderson, P.E.
Manager/Engineering Services

VWH/sld

Enclosure



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:

2019 and 2020

Originally Printed: June 13, 2018

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

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



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

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

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 development mandates (Standard 5: Mass Appraisal, Development), particularly with regards to some, but not all, of the *model calibration* and *statistical performance testing* confines. However, P&A does strive to employ all or most elements of mass appraisal techniques with regards to the *definition* and *identification of property characteristics* and *model specification* and application.

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

Regarding mass appraisal reports due the client and other intended users per USPAP (Standard 6 (Mass Appraisal, Reporting), P&A will clearly state or otherwise make known all extraordinary assumptions, hypothetical conditions, limitations imposed by assignment conditions, and/or jurisdictional exceptions in its appraisal reports as they are conveyed to our clients. **Intended users of our reports are typically the client(s) for which we are under direct contract.** Although taxpayers or their agents who own and/or represent the subject property being appraised often receive these reports either by law or as a courtesy of the client or P&A, this receipt does not mean these parties automatically become Intended Users as defined by USPAP. **A party receiving a copy of a report in order to satisfy disclosure requirements does not become an intended user of the appraisal or mass appraisal unless the appraiser specifically identifies such party as an intended user.** Potential other users include parties involved in adjudication of valuation disputes (review board members, lawyers, judges, etc.), governmental agencies which periodically review our appraisals for various statutory purposes (such as the Texas Comptroller’s Office) and private parties who may obtain copies of our appraisals through Open Records Requests made to governmental agencies.

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

Per USPAP, the appropriate reporting option and level of information in a report are dependant on the intended use and the

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

P&A believes that, with its vast experience and expertise in these areas of appraisal, all concluded values and reports thereof are credible, competent, understandable, uniform and consistent; and most importantly for ad valorem tax purposes, accomplished in a cost-efficient and timely manner.

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

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

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

PREAMBLE

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

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

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

USPAP addresses the ethical and performance obligations of appraisers through DEFINITIONS, Rules, Standards, Standards Rules, and Statements (if any). 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 Rules 3 and 4:** establishes requirements for the development and communication of an appraisal review.
- **Standards Rules 5 and 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 Rules 5 and 6 are 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 Standards 5 or 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 or appraisal review 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 not perform an assignment with bias;
- must not advocate the cause or interest of any party or issue;
- must not accept an assignment that includes the reporting of predetermined opinions and conclusions;
- must not misrepresent his or her role when providing valuation services that are outside of appraisal practice;
- must not communicate assignment results with the intent to mislead or to defraud;
- must not use or communicate a report or assignment results known by the appraiser to be misleading or fraudulent;
- must not knowingly permit an employee or other person to communicate a report or assignment results that are misleading or fraudulent report;
- must not 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;
- must not engage in criminal conduct;
- must not willfully or knowingly violate the requirements of the RECORD KEEPING RULE; and must not perform an assignment in a grossly negligent manner.

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

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

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

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

MANAGEMENT

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

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

Advertising for or soliciting assignments in a manner that is false, misleading, or exaggerated is unethical. Decisions regarding finder or referral fees, contingent compensation, and advertising may not be the responsibility of an individual appraiser, but for a particular assignment it is the responsibility of the individual appraiser to ascertain that there has been no breach of ethics, that the assignment consulting assignment has been prepared in accordance with USPAP Standards, and that the report can be properly certified when required by USPAP Standards 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 or appraisal review assignment. An appraiser may authorize the use of his or her signature only on an assignment-by-assignment basis.

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

CONFIDENTIALITY

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

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

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

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

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

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).

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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.

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Appraisal Resources

USPAP STANDARDS RULE 6-1: MASS APPRAISAL OF MINERAL INTERESTS

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INTRODUCTION

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

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

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

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

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

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

- **Standard 6-1:** Defines requirements of a mass appraisal written report by addressing the content and level of information required in a report that communicates the results of a mass appraisal (elements of which are further detailed in the next three sections of this report that discuss P&A appraisal procedures with regards to specific categories of property).
- **Standard 6-2:** Defines 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 6-1, with regards to P&A appraisal of Mineral Interests, Industrial-Utility-Personal Property, and Real Estate.

- **Standard 5-2:** Defines the introductory framework requirements of developing a mass appraisal, focusing on the identification and/or definition of: client(s), intended users, effective date, appraisal perspective, scope of work, extraordinary assumptions, hypothetical conditions, the type and definition of value being developed (typically “fair market value” for ad valorem tax purposes), characteristics of the property being appraised in relation to the type and definition of value and intended use, the characteristics of the property’s market, the property’s real or personal attributes, fractional interest applicability, highest and best use analysis along with other land-related considerations, and any other economic considerations relevant to the property.
- **Standard 5-3:** Defines requirements for developing and specifying appropriate mass appraisal data and elements applicable for real and personal property. For real property, the data and elements include: existing land use regulations, reasonably probable modification of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use analysis. For personal property, the relevant data and elements include: identification of industry trends, trade level, highest and best use, and recognition of the appropriate market consistent with the type and definition of value.
- **Standard 5-4:** Further defines requirements for developing mass appraisal models, focusing on development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe of properties under consideration. This rule specifies that appraisers employ recognized techniques for specifying and calibrating mass appraisal models. Model specification is the formal development of a model in a statement or mathematical equation, including all due considerations for physical, functional, and external market factors as they may affect the appraisal. These models must accurately represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. Models must be calibrated using recognized techniques, including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation. Models may be specified incorporating the income, market, and/or cost approaches to value and may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics such as adaptive estimation. Model calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model.
- **Standard 5-5:** Defines requirements for collection of sufficient factual data, in both qualitative and quantitative terms, necessary to produce credible appraisal results. The property characteristics collected must be contemporaneous with the effective date of the appraisal. The data collection program should incorporate a quality control procedure, including checks and audits of the data to ensure current and consistent records. This rule also calls for calls for an appraiser, in developing income and expense statements and 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 5-6:** Defines requirements for application of a calibrated model to the property being appraised. This rule calls for: the appraiser to recognize methods or techniques based on the cost, market, and income approaches for improved parcels; the appraiser to value sites by recognized methods or techniques such as allocation method, abstraction method, capitalization of ground rent, and land residual; the appraiser to develop value of leased fee or leasehold estates with consideration for terms and conditions of existing leases, and, when applicable by law, as if held in fee simple whereas market rents are substituted for actual contract rents; the appraiser to analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or component parts of a property; the appraiser to analyze anticipated public or private improvements located on or off the site, and analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in market actions.
- **Standard 5-7:** Defines the reconciliation process of a mass appraisal. Specifically, appraisers must analyze the results and/or applicability of the various approaches used while ensuring that, on an overall basis, standards of reasonableness and accuracy are maintained with the appraisal model selected (underline added for emphasis). It is implicit in mass appraisal that, even when properly specified and calibrated models are used, some individual value conclusions will not meet standards of reasonableness, consistency, and accuracy. Appraisers have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy.

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

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

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

A mass appraisal includes:

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

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

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

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

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

- **Standard 5-1:** Establishes the appraiser’s technical and ethical framework. Specifically, appraisers must recognize and use established principles, methods and techniques of appraisal in a careful manner while not committing substantial errors of fact or negligence that would materially affect the appraisal results and not give a credible estimate of fair market value. To this end appraisers must continuously improve his or her skills to maintain proficiency and keep abreast of any new developments in the real and personal property appraisal profession. This Standards 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.

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.

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.

SCOPE OF WORK RULE

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

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

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

Scope of work includes, but is not limited to:

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

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

PROBLEM IDENTIFICATION

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

RECORD KEEPING RULE

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

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

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

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

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

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

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

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

applicable law or regulation.

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

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

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

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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).

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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.

**USPAP STANDARDS RULE 6-1: MASS APPRAISAL 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 6-1. USPAP Standards Rule 6-2 (certification) can be found at the end of this report. USPAP Standards Rules 5-1 through 5-7 (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 "restricted" nature 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.

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

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

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

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

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, et. al.). Other discovery tools are financial data from annual reports, information from chief appraisers, renditions, tax assessors, trade publications and city and local newspapers. Other members of the public often provide P&A information regarding new industry and other useful facts related to property valuation.

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

VALUATION ANALYSIS (MODEL CALIBRATION)

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

INDIVIDUAL VALUE REVIEW PROCEDURES

Individual property values are reviewed several times in the appraisal process. P&A's industrial, utility, personal property programs and appraisal spreadsheets afford the appraiser the opportunity to review the value being generated. Often the appraiser is prompted to reevaluate some or all of the parameters of data entry so as to arrive at a value more indicative of industry standards. Examples of indicators are original cost, replacement cost, service life, age, net operating income, capitalization rate, etc. In addition to appraiser review, taxpayers are afforded the opportunity to review the appraised values

either before or after Notices of Appraised Value are prepared. Taxpayers, agents and representatives routinely meet with P&A's appraisers to review parameters and to provide data not readily available to P&A through public or commercial sources, such as investment costs and capitalization rate studies. And of course, all property values are subject to review through normal protest and Appraisal Review Board procedures, with P&A acting as a representative of the Office of the Chief Appraiser.

PERFORMANCE TESTS

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