

HOWARD COUNTY APPRAISAL DISTRICT

**REAPPRAISAL PLAN**

2019-2020

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# Howard County Appraisal District

## 2019/2020 Reappraisal Plan

### EXECUTIVE SUMMARY

The Howard County Appraisal District (HCAD) has prepared and published this report, as required by the Property Tax Code, to provide our citizens and taxpayers with a better understanding of the district's responsibilities and activities. This report is divided into several sections: a general introduction and then several other sections describing the appraisal effort by the appraisal district.

The Howard County Appraisal District 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, administrative requirements of the appraisal district. A member Board of Directors, appointed by the taxing units within the boundaries of Howard County, constitutes the districts governing body. The chief appraiser, appointed by the Board of Directors, is the chief administrator and chief executive officer of the appraisal district.

The Appraisal District is accountable for the local property tax appraisal and exemption administration for 12 jurisdictions and taxing units in the county. Each taxing unit, such as the county, city, school district, water district, etc., sets its own tax rate to produce 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 and estimated values by the appraisal district designate the year's tax burden on the basis of each of the taxable properties market value. Also, we determine the eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, charitable or religious organizations and agricultural productivity valuation.

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

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

The Property Tax Code defines special appraisal provisions for the valuation of residential homestead property (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. 23.16) or restricted use properties (Sec. 23.82) 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 1<sup>st</sup> of the year proceeding the tax year to which the appraisal applies by filing an application with the chief appraiser requesting that the inventory be appraised as of September 1<sup>st</sup>.

The appraised value of real estate is calculated using specific information about each individual property. Using computer assisted appraisal programs, recognized appraisal methods, and techniques we compare that information with the data for similar properties, and with recent market data analysis. The district follows the standards of the Property Tax Code regarding its appraisal practices and procedures, and subscribes to the standards announced by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable. 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.

### **The Written Plan**

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

- (i) To ensure adherence with generally accepted appraisal practices, the Board of Directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the 10<sup>th</sup> day before the date of the hearing, the secretary of the board shall deliver to the presiding officer of the governing body of each taxing unit participating in the district a written notice of the date, time, and place of the hearing. Not later than September 15 of each even numbered year, the board shall complete its 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 Appraisal

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

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

## **REVALUATION DECISION**

The Howard County Appraisal District by policy adopted by the Chief Appraiser and the Board of Directors reappraises all property in the district every year. This is done on a rotation basis with a different school district inspected in the field each year. The other school districts receive a statistical analysis. Howard CAD is a rural district, therefore market areas are defined by the school district boundaries.

### **Tax Year 2019**

Tax year 2019 is a reappraisal year. Forsan ISD Field Inspection

### **Tax Year 2020**

Tax year 2020 is a reappraisal year. Coahoma ISD Field Inspection

All new construction will be picked up; all adjustments in property characteristics that affect value will be applied for all property types and classes within the district.

### **Performance Analysis**

In each tax year 2019 and 2020 the previous tax year's equalized values are analyzed with ratio studies to determine appraisal accuracy and appraisal uniformity overall and by market area within state property reporting categories. Ratio studies are conducted in compliance with the current *Standard on Ratio Studies* from the International Association of Assessing Officers. Mean, median, and weighted mean ratios are calculated for properties in each reporting category to measure the level of appraisal (appraisal accuracy). The mean ratio is calculated in each market area to indicate the level of appraisal (appraisal accuracy) by property reporting category.

Staffing and budget requirements for tax year 2019 analysis of available resources are detailed in the 2019 appraisal district budget, as adopted by the Board of Directors on August 8<sup>th</sup> 2018. 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. Each year, real property appraisal depreciation tables and cost new tables are tested against verified sales data to ensure they represent current market data as available. The cap rate study by commercial real property type is updated from current market data and market rents are reviewed and updated from local published data. Personal property density schedules are tested and analyzed based on rendition and prior year hearing documentation.

Information Systems (IS) support is detailed with year specific functions identified and system upgrades scheduled. Computer generated forms are reviewed for revisions based on year and

reappraisal status. Legislative changes are scheduled for completion and testing. Existing maps and data requirements are specified and updates scheduled.

## *Resources*

The Office of the Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling of district operations. The functions of the administration is to plan, organize, direct and control the business support functions related to human resources, budget, finance, record management, purchasing, fixed assets, facilities and postal services. The department is also responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, minerals, utilities, and industrial. The district's appraisers are subject to provisions of the Property Taxation Professional Certification Act and must be registered with the Texas Department of Licensing and Regulation. Support functions including records maintenance, information and assistance to property owners, and hearings are coordinated by personnel in the support services. The Appraisal District is located in the Annex Building east of the Courthouse.

The appraisal district staff consists of Nine Employees:

- 2 Official Administrators (Executive level administration)
- 8 Administrative Support (professional, customer service, and clerical)

### **Staff Education and Training**

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

On-the-job training is delivered by the Chief Appraiser and Deputy Chief Appraiser for new appraisers and they meet regularly with staff to introduce new procedures and regularly monitor appraisal activity to ensure that standardized appraisal procedures are being followed by personnel.

### **DATA**

Field and office procedures are reviewed and revised as required for data collection. The District is responsible for establishing and maintaining approximately 72,107 real, personal property and mineral accounts covering 902.8 square miles within Howard County. This data includes property characteristic and ownership and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review that is rotated by school district. Sales are routinely validated as part of the new construction and data review field activities. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various

sources, including internally generated questionnaires to buyer and seller, university research centers, and market data centers and vendors. The district has many maps whether it is on computer or on paper. These maps are used on a daily basis to assist with general information needed by the public or staff. The district does not maintain a website at this time but is planned for in the future.

## **REAPPRAISAL YEAR PROCESS**

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 and attached to the written biennial plan by reference. 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 systems 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 is 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) system revisions that are required are specified and scheduled with Information Systems. All computer forms and procedures are reviewed and revised as required.
5. **Data Collection Requirements** – field and office procedures are reviewed and revised as required for data collection. Activities scheduled for each tax year include new construction, demolition, remodeling, re-inspection of problematic market areas, re-inspection of the universe of properties on an annual 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 by use of test and control groups.
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 property tax code required Mass Appraisal Report is prepared and certified by the chief appraiser after the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15<sup>th</sup>). 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. The Report Date is certification Date (on or about July 25<sup>th</sup>).
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 settings and formal appraisal review board hearings is specified and tested.

This 9 step Reappraisal Process is taken directly from “Property Appraisal and Assessment Administration” The International Association of Assessing Officers.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### ***Field Review***

The date of last inspection and the CAD appraiser responsible are listed on the CAMA record or property card. If a property owner or jurisdiction argues the district’s records concerning this data during a hearing, by way of telephone call or other correspondence received, the record may be corrected based on the evidence provided or an on-site inspection may be conducted. Usually, a field inspection is requested to verify this information for the current year’s valuation or for the next year’s valuation. Every year a field review of real property located in certain areas or neighborhoods in the jurisdiction is done during the data review/re-list field effort. A field review is performed on all personal property accounts, with available situs, every year.

### ***Office Review***

Office reviews are completed on properties where updated information has been received from the owner of the property and is considered accurate and correct. Data mailers, sent in mass, or at the request of the property owner frequently verify some property characteristics or current condition of the property. When the property data is verified in this way, and is considered correct and accurate, a field inspection may not be required. The personal property department mails property rendition forms in December of each year to assist in the annual review of the property.

## **PERFORMANCE TEST**

The appraisers are responsible for conducting ratio studies and comparative analysis. Ratio studies are conducted on property located within certain neighborhoods or districts by appraisal staff. The sale ratio and comparative analysis of sale property to appraised property forms the basis for determining the level of appraisal and market influences and factors for the neighborhood. This information is the basis for updating property valuation for the entire area of property to be evaluated. Field appraisers, in many cases, may conduct field inspections to insure the accuracy of the property descriptions at the time of sale for this study. This inspection is to insure that the ratios produced are accurate for the property sold and that appraised values utilized in the study are based on accurate property data characteristics observed at the time of sale. Also, property inspections are performed to discover if property characteristics had changed as of the sale date or subsequent to the sale date. Sale ratios should be based on the value of the property as of the date of sale not after a subsequent or substantial change was made to the property after the negotiation and agreement in price was concluded. Properly performed ratio studies are a good reflection of the level of appraisal for the district.

## **Planning and Organization**

A 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. Production standards for field activities are calculated and incorporated in the planning and scheduling process

## **2019 TAX YEAR CALENDAR KEY EVENTS**

- September 2018 – December 2018: Personal property appraiser conducts field inspection of properties.
- September 2018 – March 2019: Appraisers will begin and complete field inspections of all real property.
- October 2018 – January 2019: Commercial and residential appraisers modify cost schedules and depreciation tables to reflect current market conditions.
- December 2018-February 2019: Conduct and complete residential, rural and commercial land valuation studies.
- January 1- Formal date of property values for the year 2019 (Sec 23.01). New property records added; reappraise due to added improvements or other property value changes; correction of clerical errors in the records.
- January 1 through April 15, 2019 - Receive and process property owners submitted property renditions (Sec 22.23).
- January 1 – May 1 2019: Receive and process applications for exemptions and special appraisal through March 31, 2019.
- January 2019: Personal Property Appraiser modifies personal property schedules for 2019.
- January – March 2019: Appraisers work tenant list for mobile home parks.
- January—March 2019: Complete specifications of all valuations models.
- February—March 2019: Work commercial vehicle registration list.
- February—June 2019: Work personal property renditions
- March 2019: Review and consider conclusions and recommendations of district's Agricultural Advisory Board.
- March 31, 2019: Complete work of city permits and for the inspection of demolished or burned property for the tax year 2018.
- April 2019: Calculate Agricultural values based on local data. (5 year average)
- April 2019: Review exemption and special-use appraisal applications.

- April 2019: Test Valuation Models and complete final statistical analysis.
- April 1, 2019 or as soon thereafter; Mail written appraisal notices in compliance with Section 25.19(g) of Property Tax Code.
- April 29, 2019: Present all ISD's with certified estimates.
- May - June 2019: Informal meetings with taxpayers and or agents.
- June - August 2019: Formal protest hearings with ARB.
- June 10, 2019: Present all other taxing jurisdictions with certified estimates.
- July 11, 2019: Target date for Chief Appraiser to present the appraisal records to the ARB for approval.
- July 25, 2019: Target date for Chief Appraiser to certify the appraisal roll to each of the taxing jurisdictions in Howard County.
- July 2019: Integrate contractor's valuation for minerals and industrial personal property into the district CAMA computer system.

## **2020 TAX YEAR CALENDAR KEY EVENTS**

- September 2019 – December 2019: Personal property appraiser conducts field inspection of properties.
- September 2019 – March 2020: Appraisers will begin and complete field inspections of all real property.
- October 2019 – January 2020: Commercial and residential appraisers modify adjustment factors applied to property cost schedules in order to reflect current market conditions.
- December 2019 - February 2020: Conduct and complete review of residential, rural and commercial land valuations.
- January 1: Formal date of property values for the year 2020 (Sec 23.01). New property records added; reappraise due to added improvements or other property value changes; correction of clerical errors in the records.
- January 1 - April 15, 2020: Receive and process property owners submitted property renditions (Sec 22.23).
- January 1 - May1 2020: Receive and process applications for exemptions and special appraisal through March 31, 2020.
- January 2020: Chief Appraiser calibrates personal property schedules for 2020.
- January – March 2020: Appraisers work tenant list for mobile home parks.
- January - March 2020: Complete calibration of all valuations models.
- February - March 2020: Work commercial vehicle registration list.
- February - May 2020: Work personal property renditions
- March 2020: Review and consider conclusions and recommendations of district's Agricultural Advisory Board.
- March 30, 2020: Complete work of city permits and for the inspection of demolished or burned property for the tax year 2019.
- April 2020: Calculate Agricultural values based on local data. (5 year average)
- April 2020: Review exemption and special-use appraisal applications.
- April 2020: Test recalibrated valuation models and complete final statistical analysis.

- April 2, 2020 or as soon thereafter as possible; Mail written appraisal notices in compliancy with Section 25.19(a) of Property Tax Code.
- April 31, 2020: Present all ISD's with certified estimates.
- May—June 2020: Informal meetings with taxpayers and or agents.
- June 11, 2020: Present all other Taxing jurisdictions with certified estimates.
- June—August 2020: Formal protest hearings with ARB.
- July 12, 2020: Tentative date for Chief Appraiser to present the appraisal records to the ARB for approval.
- July 25, 2020: Tentative date for Chief Appraiser to certify the appraisal roll to each of the taxing jurisdictions in Howard County.
- July 2020: Integrate contractor's valuation for minerals and industrial personal property into the district CAMA computer system.

## **MASS APPRAISAL SYSTEMS**

Computer Assisted Mass Appraisal (CAMA) System revisions are specified and scheduled with Information Systems. All computer forms and IS procedures are reviewed and revised as required. The following details these procedures as it relates to 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 (The Cost Method of Appraisal). 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 Marshall & Swift Valuation Services as well as local construction costs.

Land tables are updated using current market data including sales and abstraction tools. Value modifiers are developed for property categories by market area and tested on a pilot basis with ratio study tools. Depth and size adjustments are reviewed and factors compared to market data by area and by zoning.

Income, expense, and occupancy data is updated in the income models for various property classes. Cap rate studies are completed using current sales and market data. The resulting models are tested using ratio study tools.

### **PERSONAL PROPERTY VALUATION**

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

Other types of commercial and industrial businesses are valued based on depreciated fixed assets and inventory valuation in accordance with Section 23.12 of the Property Tax Code.

### **MINERAL PROPERTY VALUATION**

Producing oil and gas properties are valued each year in accordance with section 23.175 of the property tax code. Thomas Y. Pickett Appraisal Group is contracted by the Howard County Board of Directors. (See attached Standard Contracting for Assisting Services)

## **NOTICING PROCESS**

Section 25.19 Appraisal notice forms are reviewed and edited for updates and changes approved by appraisal district management. Updates include the latest copy of Comptrollers *Taxpayers rights, remedies, and responsibilities*.

## **HEARING PROCESS**

Protest hearing scheduling for informal and for 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 HB 201 is insured. (HB 201 deals with a protesting taxpayers right to a postponement of an ARB hearing if the appraisal district fails to deliver to the taxpayer certain materials and information at least 14 days before the ARB protest hearing).

## **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, as well as re-inspection of the universe of properties on an annual cycle.

## **NEW CONSTRUCTION / DEMOLITION**

New construction field and office review procedures are identified and revised as required. Field production standards are established and procedures for monitoring are tested. Source of building permits is confirmed and system input procedures are identified. Process of verifying demolition of improvements is specified.

## **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 finalization in the valuation modeling process.

## **RE-INSPECTION OF PROBLEMATIC MARKET AREAS**

Real property market areas, by property classification, are examined 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 International Association of Assessing Officers, *Standard on Mass Appraisal of Real Property* specifies that the universe of properties should be re-inspected on a cycle of 4-6 years. The re-inspection may include the re-measurement of at least two sides of each improved property. Physical inspection is considered to be the most fundamental step in achieving reliable property valuations. **(USPAP) Uniform Standards of Professional Appraisal Practice does not require inspection for reappraisal. “Only that the characteristics of a property, relevant to an assignment be identified.” Frequent physical inspections are nevertheless necessary to insure that each property is appraised according to its conditions as of January 1.** Howard County Appraisal District will be on an annual physical inspection cycle for properties within the district on a rotating basis. The annual re-inspection requirements for tax year’s 2019 and 2020 are scheduled on the key events calendar.

## **FIELD OR OFFICE VERIFICATION OF SALES DATA AND PROPERTY CHARACTERISTICS**

All three approaches to estimating market value depend in some way on market information. Appraisal records must contain complete and accurate information about sales prices and conditions of properties within the district.

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. The reliability of any valuation model or sales ratio study depends on the quantities and quality of its data. Three basic sources of sales data are real estate transfer documents, buyers and sellers, and third parties. Howard County Appraisal District obtains sales information from deed filings, closing statements, buyer/seller questionnaires, telephone and face-to-face interviews. Sales data is also obtained from internet websites.

Necessary sales screening and verification of sales data is conducted by district staff, with the primary goal of obtaining an adequate sales database of valid sales, not just to find reasons to exclude sales. Sales data is available for review in the district’s Improved Property Sales books and Land Sales books.

## **PILOT STUDY**

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

A pilot study helps to evaluate what to correct and how. Data is collected on representative sets of properties. Estimated values are assigned and then analyzed to determine which factors contribute to value. Certain factors or characteristics may not be vital to valuation, but are maintained because they may be useful for explaining values to taxpayers.

The pilot study, which includes a ratio study, will indicate if a new system produces accurate and reliable values. A particularly effective technique to use in conducting a pilot study is to separate sales into test and control groups. Models are developed from the test group and then applied to the control group. Models that are inherently unstable will not perform well on the control group.

## **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, and 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. Tax year 2020 is a reappraisal year.

## **MODEL DEVELOPMENT, CALIBRATION, AND TESTING**

Property valuation models seek to explain the market value of properties from market data and sales. Models (schedules) are constructed to represent the operation of forces of supply and demand. These models have evolved from three broad theories of value: Cost, Market (sales comparison) and Income.

Model development requires good theory, data analysis, and research. Any developed model that accurately reflects the market will make the value defense burden of the appraisal district much more credible. The best valuation models will be accurate, rational and explainable.

Model building (development) requires two distinct steps. Model specification (model design based on appraisal theory and market analysis, supply & demand variables and their interrelationships) and model calibration (solving for unknown quantities in a model) such as construction cost, depreciation, sales prices adjustments or capitalization rates.

Qualitative and quantitative data are used in the mass appraisal models. Qualitative data (such as location, roof type, or heating and cooling systems) are analyzed to evaluate the relationship between two variables. Quantitative data (the presence or the absence of a defining or specific feature) are based on measuring or counting, (for example, the square feet of a structure). Model calibration is the process of estimating the variables in a mass appraisal model.

Howard County Appraisal District uses simple calibration each year to adjust existing developed models in use. Simple calibration promotes consistency in results and parcels can be recalibrated in mass. This is particularly effective when combined with ratio studies to monitor the level of appraisal by key property type.

Successful model development, calibration, and testing are contingent on various administrative and practice issues. One is the available budget and resources at hand, and another is the quality of existing data and recent appraisal performance. For Howard County Appraisal District past and recent performance has been excellent, as determined by the Property Value Study from the Comptrollers Property Tax Division. This makes an annual reappraisal cycle a much more practical course of action.

## **APPROACHES TO VALUE**

As mentioned earlier, there are 3-Basic Approaches to value - Cost, Market, (Sales Comparison) and Income. Not every approach is pertinent and useful for valuing all property types. For instance, the cost approach is not applicable to the valuation of vacant land. The Sales Comparison Approach is not useful in the valuation of a zoo or public library because of the lack of sales data.

Standard Rule 6-1 of USPAP requires “the mass appraiser to be aware of and correctly employ those recognized methods and techniques (approaches to value) necessary to produce a credible mass appraisal.”

Standard Rule 6-8 (j) required under scope of work requirements, used in developing an appraisal, that the exclusion of the sales comparison approach, (market approach) cost approach, or income approach must be explained.

Section 23.01(b) 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. The same or similar appraisal methods and techniques shall be used in appraising the same or similar kinds of property. However, each property shall be appraised based upon the individual characteristics that affect the property’s market value.”

Section 23.0101 states:

“In determining the market value of property, the chief appraiser shall consider the cost, income and market data comparison methods of appraisal and use the most appropriate method.” Which one of the 3 methods is the most appropriate? Generally it will depend on three factors. (1) Whether or not the necessary data is reasonably available for use of a particular approach (2) Typical practice for appraising a particular property type (3) If the result by use of the approach would be meaningful.

Howard County Appraisal District typically uses one approach to value (method or technique) dependent upon the property use or type. For consumptive use properties, such as single family residences, the district uses a cost/hybrid model. It is a sales market adjusted model that is typical for appraisal districts using mass appraisal. For Investment use properties such as apartments or hotels or oil & gas properties, we typically use the Income Approach to value as a being a more reliable indicator of estimated current market value. For productive use properties, such as manufacturing plants, we typically use a Cost Approach to value, as being the most reliable indicator of estimated current market value.

Howard County Appraisal District in compliance with Section 23.01 of the Property Tax Code is consistent in the “use of the same appraisal method for the same or similar kinds of property”. In compliance with USPAP standards Rule 6-8 (j) the “Jurisdictional Exception Rule” is invoked

due to the contrary requirement of this USPAP rule and of the Texas Property Tax Code Section 23.0101 and the requirement that the chief appraiser use the most appropriate of these methods.

Use of a specific or particular approach to value during the appraisal phase of the tax calendar does not prevent the use of alternative or support alternative approaches during the equalization phase of the tax calendar (value defense).

Special use appraisals for agricultural properties, recreational use, and special inventory are in compliance with the comptroller appraisal manuals for appraisal of agricultural land, appraisal of recreation, park & scenic land and dealer's special inventory manuals as well as in compliance with The Texas Property Tax Code.

## **RESIDENTIAL REAL PROPERTY**

Residential properties are physically inspected on a rotating basis. Changes that have occurred and observed condition are noted by the field appraiser and entered into account records.

Permits for new activity and sales files, on specific accounts, can be referenced as needed.

Each appraiser is responsible for verifying and collecting accurate and reliable property data. Howard CAD uses cost schedules to value residential parcels in the district. These cost schedules (models) are actually hybrid models called "Market-Adjusted Cost Hybrid" computer assisted mass appraisal models. These hybrid models are the most predominately used by appraisal districts in the state. Few districts use a pure RCN cost model (schedule) to value residential properties.

All residential property analysis work performed in association with the valuation process is neighborhood specific. Each residential neighborhood is assigned to a group or cluster, based on observed aspects of homogeneity with the market area.

Howard CAD residential models consist of 36 MAIN CLASSES with class defining features for each class listed in the district's Appraisal Operations Manual. Property specific features are additives to the main class such as attached/detached garages, covers, storage buildings, etc. Residential structures are classified according to quality of construction, style and design, appeal, and the presence of certain features. Age and condition of structures are adjusted based on real estate depreciation tables. These depreciation tables adjust for not only physical deterioration, but also for market reactions to obsolescence. The real estate depreciation tables are actually what are called CDU percent good tables. CDU (condition, desirability and usefulness) is the overall value change from a benchmark new property, to reflect all losses of utility.

A review of all residential cost schedules (models) is performed annually. As part of the review and evaluation process, property data characteristics are compared against replacement costs from Marshall & Swift Valuation Services and from sales ratios. Based on these statistics, a preliminary decision is made as to whether the value level within a class of residential properties or a value level within a specific neighborhood needs to be changed for the current appraisal year, or if the values are at an acceptable existing level.

Classification, adjustments and other factors related to the residential schedules are located in the district's Appraisal Operations Manual.

## **SPECIAL INVENTORY RESIDENTIAL PROPERTY**

Section 23.12 Inventory of the Property Tax Code states that: “The market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business. An inventory shall include residential real property which has never been occupied as a residence and is held for sale in the ordinary course of a trade or business, provided that the residential real property remains unoccupied, is not leased or rented, and produces no income”. The property tax code also requires the chief appraiser to “apply generally accepted appraisal techniques in computing the market value as defined” in Section 23.12.

Generally accepted appraisal techniques that have been approved by the courts support the Unit Method of valuation for residential inventory appraisal. The Unit Method compares parcels based on size of parcels on a square foot basis with values of similar parcels.

Howard CAD uses the technique called the “Development Method” to value residential real estate inventory. The market value will be based on the total developmental costs as of appraisal date (January 1<sup>st</sup> of each tax year). Developmental costs typically include, purchase prices for land, fees and permits, site preparation, utilities, streets, amenities, marketing costs and construction costs of improved parcels. Once all developmental costs are calculated, that figure is divided by the total development square footage of available sites or acreage to determine the per square foot or per acre value of the inventory.

## **COMMERCIAL VALUATION PROCESS**

### **INTRODUCTION**

#### ***Appraisal Responsibility***

This mass appraisal assignment includes all of the commercially classed real property that falls within the responsibility of the commercial valuation appraisers of the appraisal district and located within the boundaries of the taxing jurisdiction. Commercial appraisers appraise the fee simple interest of properties according to statute. However, the affect of easements, restrictions, encumbrances, leases, contracts or special assessments are considered on an individual basis, as is the appraisal of any non exempt taxable fractional interests in real property. Fractional interest or partial holdings of real property are appraised in fee simple for the whole property and divided programmatically based on their prorated interests.

#### ***Appraisal Resources***

The improved real property appraisal responsibilities are categorized according to major property types of multi family or apartment, office retail, warehouse and special use (i.e. motels, hospitals, and nursing homes). Appraisers are assigned to improved commercial property types. The appraisers are then assigned to the land valuation responsibilities.

Data- The data used by the appraiser includes verified sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividends rates, marketing period, etc.). Other data used includes actual income and expense data (typically obtained throughout the hearing process), actual contract rental data, leasing information (commissions, tenant finish, term lengths, etc.), and construction data. In addition to the actual data obtained from specific properties, market data publications are reviewed as well to provide added support for market trends.

### **PRELIMINARY ANALYSIS**

#### ***MARKET STUDY***

Market studies are used to test new or existing procedures or valuation modifications in a certain area (sample properties) of the district and are also considered whenever substantial changes are created. These studies target certain types of improved property to evaluate current market prices for rents and for sales of commercial and industrial real property. These comparable sales reveal whether the valuation system is producing accurate and reliable value estimates or whether economic or procedural modifications are going to be needed.

## **VALUATION APPROACH (MODEL SPECIFICATION)**

### ***Land Value***

Commercial land is analyzed annually to compare appraised values with recent sales in the market area. If appraised values are different from sales prices being paid, adjustments are made to all land in that region. Some of the factors placed on individual properties are corner influence, depth of site, shape of site, easements across site, and others. These may influence the value. The land is valued as though vacant at the highest and best use.

### ***Area Analysis***

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

### ***Neighborhood Analysis***

The neighborhood consists of the land area and commercially classed properties located within the boundaries of certain taxing jurisdictions. This area includes a wide variety of property types such as residential, commercial and industrial. Neighborhood analysis involves the examination of how physical, economical, governmental, and social forces and other influences affect property values. The effects of these forces are also utilized to identify, classify, and organize similar properties into smaller, manageable subsets of the universe of properties known as neighborhoods. In the mass appraisal of commercial properties, these subsets of a universe of properties are usually referred to as economic areas or market areas.

Economic areas are distinguished by each of the improved property use types (apartment, retail, office, warehouse, and special use) based upon an analysis of similar economic or market forces. Included but not limited are similarities of rental rates, classification of projects (known as building class by area commercial market experts), date of construction, overall market activity or other pertinent influences. Economic area identification and delineation by each major property use type in the benchmark of the commercial valuation system. All of the income model valuation is specific to the economic area.

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

The highest and best use is the most logical probable use that produces the highest present value of the real estate as of the date of valuation. The highest and best use of any given property must be physically possible, legally permissible, financially feasible, and maximally productive. For improved properties, highest and best use is evaluated as improved and as if the site were still vacant. This aids in deciding if the existing improvements have a transitional use, interim use, nonconforming use, multiple uses, speculative use, excess land, or different optimum use if the site were vacant. For vacant tracts of land within this jurisdiction, the best and highest use is considered speculative based on the surrounding land uses. Improved properties show a wide

variety of highest and best uses which include but are not limited to: office, retail, apartment, warehouse, light industrial, special purpose, or interim uses. In many instances, the property's current use is equivalent to its highest and best use. This analysis insures that an accurate estimate of market value is derived.

### ***Market Analysis***

A market analysis has to do with market forces affecting supply and demand. This study includes the relationship between social, economic, environmental, governmental, and site conditions. Current market value including sales of commercial properties, new construction, new leases, lease rates, absorption rates, vacancies, allowable expenses, expense ratio trends, capitalization rate studies are observed.

### ***Cost Schedules***

The cost approach to value is applied to improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost data reporting services as well as actual cost information on local comparable properties whenever possible. Cost models are typically developed based on the Marshall Valuation Service, which indicate estimated hard or direct costs of various improvement types. Cost models include the derivation of replacement cost new (RCN) of all improvements represented within the district. These include property description, design, and types of improvement construction. This approach and analysis also employs the sales comparison approach in the evaluation of soft or indirect costs of construction. Evaluating market sales of newly developed improved property is an important part of understanding total replacement cost of improvements. What total costs may be involved in the development of the property, as well as any portion of cost attributed to entrepreneurial profit can only be revealed by market analysis of pricing acceptance levels. In addition, market related land valuation for the underlying land value is important in understanding and analyzing improved sales for all development costs and for the abstraction of improvement costs for construction and development. Time and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost service is used as a basis for the cost models, location modifiers and estimates of soft cost factors are necessary to adjust these base costs specifically for various types of improvements located in Howard County. Local modifiers are additional cost factors applied to replacement cost estimated by the national cost service. Estimated replacement cost new will reflect all costs of construction and development for various improvements located in Howard CAD as of the date of appraisal.

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

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

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

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

### ***Income Models***

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

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

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

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

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

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

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

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

Rent loss concessions are estimated for specific properties with vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized occupancy. The rent loss is calculated by multiplying the rental rate by the percentage difference in 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 this real property operation is discounted using an acceptable risk rate. The discounted value (inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions) becomes the rent loss concession and is deducted from the value indication of the property at stabilized occupancy. A variation of this technique allows a rent loss deduction to be estimated for every year that the property's actual occupancy is less than stabilized occupancy.

### ***Sales Comparison (Market) Approach***

Although all three of the approaches to value are based on market data, the Sales Comparison Approach is most frequently referred to as the Market Approach. This approach is utilized not only for estimating land value but also comparing sales of similarly improved properties to parcels on the appraisal roll. As previously discussed in the Data Collection / Validation section of the report, pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year in order to obtain relevant information which can be used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the Cost Approach, rates and multipliers used in the Income Approach, and as direct comparison in the Sales Comparison Approach. Improved sales are also used in ratio studies, which afford the appraiser an excellent means of judging the present level and uniformity of the appraised values.

### ***Final Valuation Schedules***

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

### ***Statistical and Capitalization Analysis***

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

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

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

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

### ***Model Calibration***

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

## **INDUSTRIAL REAL PROPERTY**

HCAD Board of Directors contracts with Thomas Y. Pickett, Inc. for all Industrial, Utility, and Mineral accounts. (See Attachment One)

## **VACANT REAL PROPERTY**

### ***Land Value Model***

Vacant land, like any other economic good, has a market value based on the present worth of its future benefits. Vacant land has value because of its potential to produce rental income in the future. For commercial land, future benefits relate to expected rents less development, maintenance and holding costs for residential land. Net income can be viewed as the annual value of residential use (an imputed rent) less annual maintenance expenses.

The concept of location being a primary determinant of land value is generally known and easily understood. Location continues to play the primary role in land value determination, but modeling location's effects has become more complicated. Land values for physically similar sites can vary greatly between a few city blocks. Most urban areas contain many value influence centers and their effect on land values is usually not linear.

Howard CAD appraisal staff analyzes these patterns and builds them into land appraisal models (tables). Vacant land is then further analyzed and valued according to common units of comparison. For urban, platted areas Howard CAD develops square foot urban land valuation tables. For rural unplatted areas within the district, rural land tables based on per acre value is utilized.

Land sale prices are also expressed on the same unit comparison basis and stratified (sorted) according to location, variation in zoning and probable use. Sorting criteria ensure that land values will reflect market data for parcels with similar or competitive uses in the same market area.

### ***Land Valuation Methods***

The primary methods of land valuation are applications of the sales comparison approach to value. There are two principal applications of sales comparison in land valuation: the comparative unit method and the base lot method.

Howard CAD uses both methods but typically utilizes the base lot method. In the comparative unit method, the average or typical per unit sale price is computed from similar valued parcels and from statistically centered per unit values.

In the base lot method, the value of the standard or "base" parcel in each stratum is determined through sales comparison analysis, with the "base" lot serving as the subject parcel. The "base

lot can be actual or a hypothetical standard parcel. Once the base lot is established, it is used as a “benchmark” to establish values for individual parcels.

### *Site Adjustments*

After establishment of base lot values, the individual parcel values can be determined after applying any necessary site adjustments. Site adjustments recognize the characteristics of individual parcels, such as shape, size, and topography. They are further categorized by:

(1) Depth adjustments (2) size adjustments (3) irregular shape (4) corner influence (5) location or other adjustments. Depth factors are based on market analysis. Howard CAD utilizes depth tables that generally follow the “4-3-2-1 rule”. The first 25% of depth represent 40% of the parcel value, the second 25%, 30% of the parcel value, the third 25%, 20% of the parcel value and the final 25%, 10% of the value. Actual depth adjustments, however, must be supported by available market data. Adjustments are also made for “excess” land or oversized lots and undersized lots.

Triangular or irregular shaped lots are also subject to adjustment due to lost utility for construction and general use, even if the irregular lot is the same size as a rectangular lot. Howard CAD generally follows the “65-35” rule for valuing these irregular, triangular, lots. The rule states that the value of a triangular lot with its base on the facing street is approximately 65% of the value of a rectangular lot of the same depth and size. Likewise, the value of an irregular lot, with its apex (point) on the facing street will be 35% of the value of rectangular lot of the same depth and size. The rule applies much more to commercial lots than to residential lots. The exercise of good appraisal judgment is always important in using “Rule of Thumb” methods of adjusting for shape and depth.

Corner influence can be positive or negative depending largely on the location and use to be made of the land. For commercial lots, visibility and accessibility can be a positive for corner lots. Corner influence to valuation of residential lots is much less significant than for commercial lots. Howard CAD recognizes the difficulties in adequately adjusting for corner influence for commercial parcels. Our approach to computing positive corner influence for commercial lots is to assign a 50% factor to rectangular corner lots with equal main and side street front footage. For other lots, a ratio of the main street front footage compared to the side street front footage is calculated and the resulting factor is applied to the lot unit value.

Location and other adjustments based on parcel sales comparison analysis are determined from market data. Rural acreage land value tables are subject to size, shape and location adjustments on a similar basis to platted lots. Sufficient market data and sales analysis are essential for district staff to reasonably value and adjust rural acreage parcels.

## **IMPROVED LAND VALUATION**

Estimating land value for improved properties in fully developed areas creates special appraisal problems for the district. Where no recent sales data for land exists, either comparable or competing land sales data must be used to value the improved land parcel or alternate methods must be utilized. Section 25.02 of the Property Tax Code lists form and content requirements for district appraisal records. One such requirement is that the market value of the land as well as the market value of improvements on the land must be listed in the districts appraisal records. Valuation of the land is also a mandatory step under the cost approach to value.

### ***Abstraction Method***

When the lack of recent land sales exists, such as in a fully developed residential neighborhood, alternate methods must be employed. The most common method is the abstraction method, also known as the Land Residual Technique. This technique is not used to establish land values directly, because inconsistencies in land values from parcel to parcel will generally result. Instead, land residuals are analyzed in the same way as vacant land sales in order to establish comparative unit or base lot values. Howard CAD utilizes the Land Residual Technique in valuing site values as required by Section 25.02 of the Property Tax Code when fully developed neighborhoods or recent sales data is unavailable.

Use of this method requires the appraisal district staff to isolate the value of improvements from the cost models employed by the district and then to subtract that improvement component value from sales prices of improved sales to yield a residual land value estimate. These calculated land residual values are then used as a supplement or alternative to vacant land sales in application of these sales comparison approaches to value.

In general this method is more accurate for parcels with relatively new structures, for which replacement costs and depreciation are more easily estimated.

### ***Allocation Method***

Another recognized method for estimating land values for improved properties is the Allocation Method (also known as the Land Ratio Technique). The theory behind this method is that for a given property type in a given area, there tends to be a consistent overall relationship between land values and improvement values. When there are insufficient land sales in a given area, appraisal district staff can seek out comparable areas of improved sales and land sales and by determining the ratio of land value to total property value, this ratio can be applied to sales of improved parcels or benchmark parcels in a subject area. As with the abstraction method, the allocation method is not used to establish land values directly. This method is particularly useful in older neighborhoods. This method can be reasonably accurate if used with caution and if improvement value estimates and sales are validated. Howard CAD makes significant use of this method in residential property valuation in older, fully developed neighborhoods.

Sales comparison and the various methods under comparison analysis are predominately used by all districts, including Howard CAD, to value both improved sites and vacant lots. The Cost

Approach to Value is inapplicable for land valuation. This is due to the fact that land is irreplaceable and that land is not subject to depreciation.

The Income approach to value has limited application in valuation of land. If land is rented or leased separately from improvements, then a so called “ground rent” can be capitalized into a value estimate. This Income Method is most applicable to commercial land based on a net basis (lessee responsible for property taxes and all other expenses) and to farmland. Capitalization rates used are based on market analysis. Howard CAD utilizes this Income Method to value land in specific cases where land is leased out.

The Cost of Development Method is used for valuing land placed into residential inventory and more fully described in a previous section. Urban / rural footage and acreage land value tables are located in the district’s Appraisal Operations Manual.

## **SPECIAL VALUATION PROPERTIES**

### ***Agricultural Use Properties***

The Texas Constitution permits special agricultural appraisal on land used for farm and ranch if its owner meets specific requirements. Casual uses such as home vegetable gardens do not constitute qualified agricultural use.

Section 23.51 of the Property Tax Code sets the standards for determining if land qualifies for agricultural appraisal. Section 23 subchapter D deals with the allowed uses and the application process involved with agricultural land appraisal.

Agricultural land classes are mandated by the Texas Property Tax Code. The chief appraiser of the district may establish additional categories. In Howard County four valuation classes of agricultural land use are maintained. Dry Cropland, Irrigated Cropland, Pasture and Waste.

All agricultural lands in the county are carried at their current market value. However, agricultural productivity appraisal allows for qualified agricultural use land to be carried at its productivity value for property tax assessment purposes. Agricultural appraisal lowers the taxable value of the land. The productive capacity of agricultural property is based on a “Net to Land” calculation that is the average annual net income that a class of land would be likely to generate over a five-year base period. The law requires the district appraisers to use the “cash” or “share” lease method to determine the “net to land”. In a cash lease, rent is a fixed amount. In a share lease, rent is a share of gross receipts for a year, less a share of certain expenses. Each year the Comptroller of Public Accounts publishes an agriculture cap rate to be used by appraisal districts in their net to land capitalization of value. For 2018, Howard CAD used a 10% capitalization rate for appraising all classes of qualified agricultural productivity use lands.

## **Wildlife Management Use**

Section 23.521 of the Texas Property Tax Code allows qualified land used for wildlife management purposes to be subject to productive use valuation as is qualified open space land (nature pasture). Qualified active use for wildlife management purposes includes propagation of a sustained breeding, migrating, or wintering population of indigenous wild animals for human use, including food, medicine, or recreation.

Wildlife management land must previously have qualified as open-space land for other purposes and at the time of application for appraisal for wildlife management use, the property must have been appraised as qualified open-space land.

## **Appraisal of Restricted Land (Recreational, Park & Scenic Use)**

Section 23.83 of The Property Tax Code provides for special appraisal of certain types of use restricted land. For restricted use land to qualify for special appraisal, it must be primarily devoted to recreation, park or scenic use for the preceding year and deed restricted for a minimum of 10 years. It must be at least 5 acres in size and cannot accrue a profit. In determining the value of qualified land so restricted, the chief appraiser may not consider any factor other than the one relating to the value of the land as restricted.

The Property Tax Division publishes “Guidelines” for the Appraisal of Recreational, Park, and Scenic Land. Two primary methods of valuation for restricted land are applicable for use on land appraised under section 23.83.

The first method is to use the sales comparison method. The sale of similarly restricted use parcels can be used to help establish value for the subject parcel. Only restricted use lands can be compared.

The second method is commonly referred to as “The Reversionary Interest Technique.” The current market value of the land would be the current use value as restricted or the value of the reversion to a non-restricted use. The current value of a reversion is estimated by projecting the future value which the property may be sold for after the restriction is removed and discounting that value back to its present worth based on the use of an appropriated discount rate. This procedure attempts to measure the present value of a future sum.

## **SPECIAL INVENTORY**

Income producing business personal property is subject to ad valorem appraisal and assessment in Texas. (BPP) Business Personal Property includes fixed assets (use items) of the firm as well as inventories (good for sale) by the firm.

Section 23.12 Inventory of the Property Tax Code states generally “the market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business.”

The exceptions to this rule are special inventories, motor vehicles, boats & motors, heavy equipment and manufactured housing. Texas Law requires that these four types of dealer’s inventory value each year are based on the total sales of motor vehicles in the prior year. Monthly sales are reported and ad valorem taxes deposited with the district office throughout the year. Appraisal values based on a monthly average of sales from the prior year are set for January 1 of the current year and paid by escrow from monthly deposits.

The Jurisdictional Exception Rule in USPAP applies to special inventory valuation due to the conflict with Standard Rule 7-1 of the Uniform Standards of Professional Appraisal Practice.

## **BUSINESS TANGIBLE PERSONAL PROPERTY**

The district appraisers are 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: Business Personal Property accounts; Leased Assets; Special Inventory; and Multi-Location Assets (allocated). There are approximately 3071 business personal property accounts located in Howard County. The district reappraises all income producing business personal property annually.

### ***Procedure for Collecting Validating Data***

A common set of data characteristics for each personal property account in Howard County is collected in the field and data entered to the computer.

## **VALUATION AND STATISTICAL ANALYSIS (model calibration)**

### ***Cost Schedules***

The cost schedules are developed by analyzing cost data from property owner renditions, hearings, state schedules, and published cost guides. The cost schedules are reviewed as necessary to conform to changing market conditions. The schedules are typically in a price per square foot format, but some exceptions are in an alternate price per unit format, such as per room for hotels.

### ***Statistical Analysis***

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

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

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

## **DATA COLLECTION**

### ***Data Collection Procedures***

The appraisal data collection procedures are reviewed and revised to meet the changing requirements of field data collection.

### ***Sources of Data***

#### **Business Personal Property**

The district's property characteristic data was collected through a massive field data collection effort coordinated by the district over the recent past and from property owner's renditions. From year to year, reevaluation activities permit district appraisers to collect new data via an annual field inspection. This project results in the discovery of new businesses, relocation of businesses, and closures of businesses not relevant through other sources. Tax assessors, city and local newspapers, telephone book, and the public often provide the district information regarding new personal property and other useful facts related to property valuation.

#### **Vehicles**

Value estimates for vehicles are provided by an outside vendor and are based on Red Book published book values, and there are also considerations available for high mileage. Vehicles that are not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

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

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

## VALUATION AND STATISTICAL ANALYSIS

### *Cost Schedules*

#### *Depreciation Schedule and Trending Factors:*

##### Business Personal Property

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

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

The PVF is used as an "express" calculation in the cost approach. The PVF is applied to report historical cost as follows:

$$\text{MARKET VALUE} = \text{PVF} \times \text{HISTORICAL COST}$$

This mass appraisal PVF schedule is used to ensure that estimated values are uniform and consistent within the market and reflect current economic pressures of supply and demand.

### *Office Review*

##### Business Personal Property

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

## PERFORMANCE TESTS

### *Ratio Studies*

Each year the Property Tax Division of the state comptroller's office conducts a property value study (PVS). The PVS is a ratio study used to gauge appraisal district performance. Results from the PVS play a part in school funding. Rather than a sales ratio study, the personal property PVS is a ratio study using state cost and depreciation schedules to develop comparative personal property values. These values are then compared to Howard CAD's personal property values and ratios are indicated.

## **INDUSTRIAL TANGIBLE PERSONAL PROPERTY**

HCAD Board of Directors contract with Thomas Y. Pickett, Inc. for all Industrial, Utility, and Mineral accounts. (See Attachment)

## **THE MASS APPRAISAL REPORT**

Each tax year the required Mass Appraisal Report is prepared by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15<sup>th</sup>). 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 Mass Appraisal Report by reference.

## **VALUE DEFENSE**

The Texas Constitution sets out 5 Rules for Property Tax in the State. The first rule requires that taxation must be equal and uniform. The second rule requires that property be taxed at current market value. These two rules are the most important requirements for county appraisal districts of the entire Texas Property Tax Code.

Howard CAD, as other districts, has the burden of establishing the value of properties within the District. That burden applies to market values (appraisal level) and to equal and uniform values (appraisal equity).

The Property Tax Code permits a property owner to protest any determination made by the appraisal district, the chief appraiser, or the ARB that applies to and adversely affects the property owner. Of the numerous grounds for protest listed in the Property Tax Code, the two most commonly filed protests deal with value over market and with unequal appraisal.

Howard CAD encourages property owners to meet with district appraisal staff to try and resolve disputes in an informal setting before a formal ARB hearing. Sometimes a mutually agreeable solution to an owner's protest at these informal meetings results in a settlement and the property owner waives any further right to a formal protest before the Appraisal Review Board.

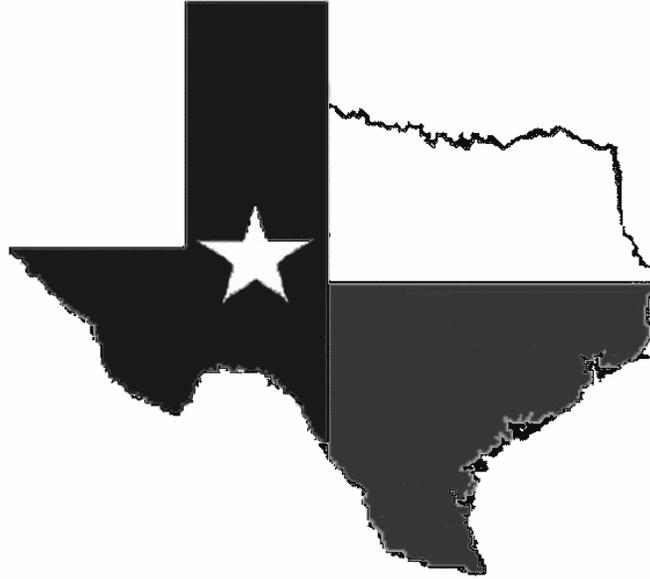
Chapter 41 of the Property Tax Code deals with the right of a property owner to a formal Appraisal Review Board (ARB) hearing. The appraisal district also has information delivery requirements concerning ARB protests.

Value Defense is part of the equalization phase of the Tax Calendar. In Formal Hearings both mass appraisal and single property appraisal methods can be introduced. Mass Appraisal and single property appraisal are systematic methods for arriving at estimates of value. They differ only in scope. Mass appraisal models have more terms because they attempt to replicate the

market for one or more land uses across a wide geographic area. Single property models, on the other hand, represent the market for one kind of land use in a limited area.

Quality is measured differently in mass appraisal than in single property appraisal. The quality of single property appraisal is measured against a small number of comparable properties that have sold. The quality of mass appraisals is measured with statistics developed from a sample of sales in the entire area appraised by the model.

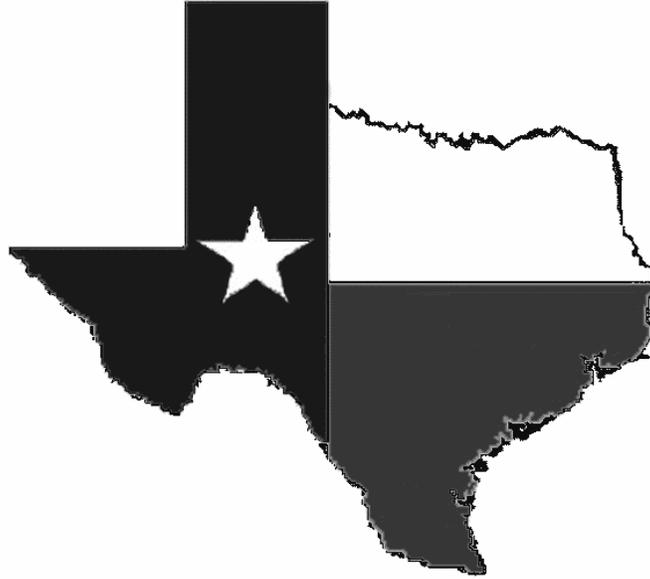
Howard CAD will make use of both mass appraisal statistics and district sales comparison of a select few comparables as in single property appraisal during formal appraisal review board hearings. Of the 3 Approaches to Value, Cost, Market and Income, the district will use not only the particular approach that the mass appraisal model is built on for a particular type of property, but the district will also present alternative approaches, methods or technique.



HOWARD COUNTY APPRAISAL DISTRICT

**REAPPRAISAL PLAN**

**(Attachment One)**



HOWARD COUNTY APPRAISAL DISTRICT

**REAPPRAISAL PLAN**

**(Attachment Two)**