

**BIENNIAL RE-APPRAISAL PLAN**  
**FOR TAX YEARS 2015 AND 2016**  
**GRIMES COUNTY APPRAISAL DISTRICT**  
**APPROVED BY THE BOARD OF DIRECTORS**  
**SEPTEMBER 9, 2014**

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## EXECUTIVE SUMMARY

### INTRODUCTION

State law provides that the Grimes County Appraisal District (GCAD) must develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to certain requirements.

GCAD has prepared this reappraisal plan not only to comply with the law but also to provide the citizens and property owners of Grimes County with a better understanding of the district's responsibilities and activities.

The plan is composed of the following:

- (1) An executive summary
- (2) A general description of mass appraisal activities
- (3) A section addressing the legal requirements concerning appraisals
- (4) Several sections that provide technical details concerning implementation of the plan

According to the plan, tax year 2015 is a reappraisal year and tax year 2016 is a non-reappraisal year.

The plan establishes systematic procedures for data collection, property inspections, updating property characteristic information, property appraisals and performance reviews.

The plan also describes the appraisal models used for major property categories as follows:

#### **Vacant Land**

Land is appraised using the sales comparison method.

#### **Single Family- Rural Residential-Mobile Homes**

Single family residential, rural residential and mobile homes are appraised by using the cost approach where (1) land is valued as if it were vacant by the sales comparison method (2) replacement cost new of improvements is established (3) accrued depreciation is estimated and deducted from the replacement cost new (4) a market area adjustment, if appropriate, is applied to the depreciated improvement value and (5) the land value and final improvement value are added together to arrive at a total property value.

### **Multi-Family Residential**

Multifamily residential properties are appraised by using the income approach, where the net income to a property is divided by a capitalization rate to arrive at market value, is used for the appraisal of multi-family properties and some income producing commercial properties.

### **Commercial Properties**

Commercial properties are appraised by using the cost approach and the income approach as described above.

### **Rural Land with Miscellaneous Improvements**

These properties are valued using the cost approach where (1) the land is valued as if it were vacant by the sales comparison method (2) replacement cost new of improvements is established (3) accrued depreciation is estimated and deducted from the replacement costs new (4) the land and depreciated improvement value are added together to arrive at a total property value.

### **Special Use Valuations**

Special use valuations for qualified agricultural and timber properties are determined by using statutory formulas that estimate the average annual net income to land over a five year period and divide the net to land by a capitalization rate to arrive at the productivity value of the property.

### **Business Personal Property**

Business personal property is valued using the cost approach where (1) Replacement cost new for furniture, fixtures and equipment is established (2) Accrued depreciation is estimated and (3) The accrued depreciation is subtracted from the replacement cost new to arrive at market value. Inventory values are generally based on information provided by the owners in a business personal property rendition.

### **Industrial Real Property**

Industrial real properties are appraised using replacement/reproduction cost new less depreciation models.

### **Industrial Personal Property**

Industrial personal properties are appraised using replacement/reproduction cost new less depreciation models.

### **Utility Properties**

Pipelines are valued using the cost approach where replacement cost less depreciation equals market value. In addition to the cost approach, a unit approach to value may be performed. The unit approach considers the valuation of the entire company then values are allocated to each taxing unit. Utility and railroad properties are valued using the unit approach.

### **Oil and Gas Properties**

A discounted cash flow analysis (DCF) is performed on oil and gas properties using future projections of production, price and operation expenses which generate an estimate of future net income that is converted into present value by applying a discount rate.

The legal requirements for the reappraisal plan are contained in Sec. 6.05 (i) and Secs 25.18 (a) and (b) of the Texas Property Tax Code. *The district's overall compliance activities are summarized in italics following each of the requirements of the plan for periodic reappraisal.* **Compliance activities for each of the major property types are detailed in later sections of this plan.**

### **THE WRITTEN PLAN**

Sec. 6.05 (i) Texas Property Tax Code requires a written biennial reappraisal plan :

(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 Sec. 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 appraisal district a written notice of the time, date and place of the hearing. Not later than September 15th 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.

### **COMPLIANCE WITH STATUTORY COMPONENTS OF PLAN FOR PERIODIC REAPPRAISAL**

Subsections (a) and (b), Section 25.18 Texas Property Tax Code, read as follows:

(a) Each appraisal district 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 photography, land based photographs, surveys, maps and property sketches;

*Appraisers annually inspect all areas of the county on a generalized basis to address issues such as new improvements, remodeling, demolition, and other updates to property characteristics. Additionally each year, the appraisers inspect designated areas in a more detailed manner on a two year basis so that approximately one-half of the county is reinspected one year and the remaining one-half the next year. The designated reinspection areas are shown in a later section of this plan. In making inspections, the appraisers compare data in the appraisal records to the actual characteristics of the property to be sure that the appraisal records reflect current conditions and data. Also, a reinspection of a property may be conducted at any time, if deemed necessary to verify property characteristic data.*

*The appraisal district regularly obtains copies of real property records filed in Grimes County in electronic form from the county clerk and loads that data ( grantor, grantee, date of transaction, volume, page and any other pertinent data) in the appraisal district's computer assisted mass appraisal (CAMA) software.*

*When an instrument indicates that part of an existing property has been conveyed, the appraisal district updates the data for the existing property and creates a new property record for the portion of the property that has been conveyed( performs a split) in accordance with the procedures in the appraisal manual.*

*When a new subdivision is recorded, the appraisal district obtains a copy of the subdivision plat and creates property records for each property shown on the plat according to the procedures specified in the district's appraisal manual.*

*The appraisal district maintains property ownership maps in a digital format using ESRI, the leading geographic information system software vendor in the nation. The district also utilizes Pictometry software which is a patented technique to capture aerial imagery and provides detailed images of land and improvements.*

*In addition to the county clerk's records, the district uses the following to discover new property: independent fee appraisers, realtors, the building permit*

records of the City of Navasota, the permit records of Grimes County, 911 addressing information, utility connections information, other public records, renditions, information furnished by property owners, vendor supplied vehicle registration lists, the appraisal records, maps, and plats. The GCAD aerial imagery known as Pictometry with the Change Finder feature is also used to identify new properties.

*Business personal property assets are identified each year by using items including, but not limited to, the following:*

- (1) Information from physical inspections*
- (3) Information from 911 addressing*
- (3) Permit information*
- (4) Public records such as DBA affidavits, UCC forms or bills of sales*
- (5) Business advertisements in local media*
- (6) Business personal property renditions*
- (7) Previous appraisal records or business personal property renditions*
- (8) Sales tax information*
- (9) Telephone directories*
- (10) Internet research*
- (11) Vehicle information databases from vendors*

*All businesses are mailed a rendition form from January 1 to January 31 of each year ( or otherwise provided a rendition form for subsequently discovered properties.)*

*Industrial real properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner, legal documents, photography and other descriptive items.*

*Industrial personal properties are identified as part of the appraiser's inspection physical process. The appraiser begins with properties from the previous tax year and identifies new properties from visual identification and/or publications, newspaper articles or information obtained from property owners. The appraiser may also refer to other documents, both public and confidential, to assist in identification of these properties.*

*Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and confidential, to assist in the identification of these properties.*

*Oil and gas properties are identified by obtaining month oil and gas lease information from the Texas Railroad Commission to compare against oil and gas properties already identified. The situs of new properties is determined by using*

plats and W-2/G-1 records as well as in-house mapping resources. Ownership is determined by division orders which are documents provided by the operators of oil and gas properties.

(2) Identifying and updating relevant characteristics of each property in the appraisal records:

*In accordance with the previously described inspection schedule appraisers observe and record property characteristics such as square footage, type of exterior, age, conditions and other data according to standardized procedures described in the GCAD appraisal manual. Pictures of improvements are taken and stored in the CAMA software to the extent possible.*

*Based on business personal property inspections, examinations of personal property renditions and other available sources, observations are made as to the level of inventories and the nature and condition of machinery and equipment*

*The GCAD's valuation engineering firm gathers information from public and private sources for oil and gas properties. Relevant characteristics for industrial personal, industrial real and utilities are identified and updated through data collected as part of the inspection process and from personal property renditions.*

(3) Defining market areas in the district:

*Market area or "neighborhood" analysis involves the examination of how physical, economic, governmental, and social forces and other influences affect property values. The effects of these forces are used to identify, classify, and organize properties into smaller groups of properties known as neighborhoods.*

*The first step in defining market areas is to identify a group of properties that share certain common traits. Some of the factors considered include, but are not limited to, location, building type, sales price range, type of construction, quality of construction and conditions of improvements, and square footage of improvements, and land size.*

*Once a market area has been identified, the next step is to delineate its boundaries. Analyses have been made to note the degree of similarity in these factors and identify points where these characteristics change and note physical and other characteristics that coincide with these points so that market areas may be delineated. In addition to delineation based on physical boundaries, delineations can also be based on an attribute analysis.*

*Finally, market area factors are applied to the delineated properties to appropriately adjust for forces influencing value within the market area.*

Appraisers periodically identify and evaluate market areas to verify that property characteristics remain homogenous. **A preliminary list of market areas and the property characteristics that affect value in each market area are indicated on the list of market areas that is included in a later section of the plan. During implementation of this plan, new market areas may be identified and existing ones may be modified or eliminated based on changing market patterns and other information that becomes available.**

- (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;

The GCAD identifies the location and market area of the property; physical attributes of the property such as size, age, quality and condition; price range, and legal and economic attributes; and easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances or legal restrictions, through physical inspection, legal instruments and documents and analysis of data and information from other reliable sources.

Each real property parcel has detailed information that is maintained in the CAMA system including, but not limited to legal description, location, dimensions, market area, improvement size, classification of exterior construction, quality of construction, age indications, condition, number of baths, air conditioning type, fireplaces and other attributes.

The property characteristics that affect value in each market area are indicated on the list of market areas that is included in a later section of the plan.

- (5) Developing an appraisal model that reflects the relationships among the property characteristics affecting the value in each market area and determines the contribution of individual property characteristics;

The appraisal district uses the sales comparison method to appraise vacant land.

The appraisal district principally utilizes the cost approach to value on improved residential, commercial, industrial and miscellaneous properties where (1) land is valued as if it were vacant by the sales comparison method (2) replacement cost new is established (3) Accrued

*depreciation is estimated and deducted from the replacement cost new (4) a market area adjustment factor, if appropriate, is applied to the depreciated improvement value (5) The land and final improvement value are added together to arrive at a total property value account for factors that influence values in a specific market area but that are not recognized in the cost approach used on at large basis.*

*The income approach is used for the appraisal of multi-family properties and some income producing commercial properties.*

*A discounted cash flow analysis (DCF) is performed on oil and gas properties using future projections of production, price and operation expenses which generate an estimate of future net income that is converted into present value by applying a discount rate.*

*Pipelines are valued using the cost approach where replacement cost less depreciation equals market value. In addition to the cost approach, a unit approach to value may be performed. The unit approach considers the valuation of the entire company then values are allocated to each taxing unit.*

*Utility and railroad properties are valued using the unit approach.*

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

*(Properties are classified by location, square footage, quality of construction, exterior cover, age , condition, and other attributes and the CAMA system applies the appropriate unit data to each attribute on a mass basis so that properties with similar attributes will have similar values.)*

*(7) Reviewing the appraisal results to determine value.*

*After values have been assigned by the CAMA system, sales ratio studies that compare appraised values to sales prices are conducted to determine the level of appraisal. The primary uses of sale ratio studies include the determination of a need for general reappraisal, prioritizing selected groups of property for reappraisal, identification of potential problems with appraisal procedures and calibrating models used to estimate appraised values.*

*Studies are conducted for the four major land market areas and single family residential, rural properties and commercial properties in each school district. Studies may also be conducted by neighborhoods, improvement type class or other criteria. Studies are conducted on an*

ongoing basis during the year with a final study being conducted before noticing.

*Statistical measures such as the median level of appraisal, the mean level of appraisal, the coefficient of dispersion, and weighted mean level of appraisal are evaluated and analyzed to determine if the assigned values fall within a range that is deemed acceptable. If the levels of appraisal fall within acceptable ranges, this would indicate that property values should not be changed. If the levels of appraisal fall below acceptable ranges, GCAD increases property values accordingly. If the levels of appraisal are above acceptable ranges, GCAD reduces property values accordingly.*

*GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform. To the extent possible, year to year property value changes for the subject property are examined.*

*Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.*

### **REVALUATION DECISION (REAPPRAISAL CYCLE) AND VALUATIONS BY TAX YEAR**

The Grimes County Appraisal District, in accordance with the reappraisal plan adopted by the Board of Directors, reappraises all property in the district every two years.

**Tax year 2015 is a reappraisal year.**

**Tax year 2016 is not a reappraisal year.**

The reappraisal year is a complete appraisal of all properties in the district.

The non-reappraisal year is used to add new construction, new subdivisions, new business personal property, new oil and gas leases, adjust for changes in property characteristics that affect value, and adjust the previous year's values on individual properties, property categories or market areas where the level of appraisal or uniformity of appraisal is unacceptable. However, the following property types are reappraised annually: oil and gas reserves, business personal property, industrial real property, industrial personal property, utilities, special inventory residential property, and properties qualified for agricultural use or timber use productivity valuation. Oil and gas reserves, industrial properties, and utilities are valued through a professional services contract with the district's valuation engineer, Capitol Appraisal Group, LLC. All other properties are valued on an in-house basis by the appraisal district staff.

## CONTINGENCY

In the event that circumstances develop preventing the appraisal district from substantially implementing the plan or requiring significant changes in the plan for tax year 2015 or 2016, a revised plan may be issued. The board of directors shall hold a public meeting to consider the revised plan. Not later than the 10<sup>th</sup> day before date of the meeting, the board secretary 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 meeting. The notice shall also include a description of the revisions and explanations for the revisions. Copies of the revised plan shall be distributed to the presiding officer of the governing body of each taxing unit in the district and to the Comptroller within 60 days of the approval date.

## **GENERAL DESCRIPTION OF MASS APPRAISAL ACTIVITIES**

### **Introduction**

The GCAD is responsible for property tax appraisals of approximately 48,500 items of property for twelve taxing jurisdictions covering an area of about 801 square miles. The appraisal district's general responsibilities are to discover, list and appraise the subject properties in the following major property types: single family residential, rural residential, multi-family residential, rural miscellaneous improvements, lots, acreage, commercial, business personal property and complex properties consisting of industrial, utility, and oil and gas reserves. The Texas Property Tax Code governs the legal and administrative requirements of the appraisal district.

**Under the current reappraisal plan, a complete reappraisal is conducted every two years. Tax year 2015 is a reappraisal year. Tax year 2016 is a non-reappraisal year.**

The GCAD uses generally accepted appraisal methods and techniques that are applied to properties through the use of a CAMA system. The GCAD follows the standards of the International Association of Assessing Officers (IAAO). The IAAO is the internationally recognized leader and preeminent source for innovation, education, and research in property appraisal, assessment administration and property tax policy. The GCAD also 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. The Appraisal Standards Board of the Appraisal Foundation develops, interprets, and amends the appraisal standards. USPAP represents the generally accepted and recognized standards of appraisal practice in the United State.

### **Personnel Resources**

The GCAD staff consists of eleven positions. The chief appraiser is primarily responsible for the overall planning, organization, staffing, coordinating, and controlling of district operations. Appraisals are performed by the chief appraiser, an assistant chief

appraiser, and four appraisers, all of whom who are registered with the Texas Department of Licensing and Regulation. Other personnel include an office manager, data system administrator, customer service representative, an appraisal/collection assistant, and collection manager. Seven of the above personnel are designated as Registered Professional Appraisers. In order to be aware of, understand and correctly employ recognized methods and techniques necessary to produce a credible mass appraisal, the appraisal staff stays abreast of current trends through review of published materials, attendances at conferences, seminars, and continuing education sessions.

## **Data**

The district is responsible for developing and maintaining approximately 48,500 property records. This data includes property characteristic data such as land size, square footage of improvements, quality of construction, age, condition and other data as well as ownership and exemption information.

Field appraisers are assigned areas throughout the appraisal district to conduct property inspections on new and existing real property and business personal property in an annual field effort. The appraisers are trained to collect and record a common set of data characteristics in accordance with established guidelines and procedures. The data gathered during the field inspection is recorded on a field card and it is later entered into the district's CAMA system and maintained there. Quality control is conducted at support and data entry levels. Data that is not fully or accurately reported is referred to the appraiser who conducted the field inspection for clarification.

Other sources for data include, but are not limited to the following: independent fee appraisers, realtors, the real property records of the Grimes County Clerk's Office, the building permit records of the City of Navasota, the permit records of Grimes County, 911 addressing information, utility connections information, other public records, renditions, information furnished by property owners, vendor supplied vehicle registration lists, the appraisal records, maps, plats of the GCAD.

Sales data is collected, adjusted, analyzed, and maintained according to IAAO procedures. Sales files contain property characteristic data that are contemporaneous with the date of sale. Geographic data is contained in as complete a set of GIS maps as possible reflecting current detail and accuracy. Data collection and verification procedures are reviewed periodically.

In making physical inspections, the appraiser shall compare the data and descriptions on the appraisal card to the actual characteristics of the property to be sure that the appraisal records accurately reflect current data. In addition to making inspections at large, the appraiser shall verify that cards are flagged for inspections due to the following: information from 911 addressing, information from public records, electric permits, mechanic liens, sewage permits, building permits, recheck requested by owners, and other reliable information.

## **Information System**

The GCAD maintains the district's data processing facility and software applications on an in-house basis. The district's applications are maintained on Dell servers and operate under a hierarchical non-relational database with a local network of general purpose PCs. The district's software vendor, Tyler Technologies, Inc., develops and maintains CAMA software for the district.

## **REAPPRAISAL AND NON-REAPPRAISAL YEAR ACTIVITIES**

### **1. Performance Analysis**

In each tax year, the previous year's approved values are analyzed with ratio studies to determine appraisal accuracy and appraisal uniformity on an overall basis and by market areas, property categories by school districts, property classifications or other criteria. Additional ratio studies are conducted throughout each year as required. Ratio studies are conducted in compliance with the most current Standard on Ratio Studies from the International Association of Assessing Officers. The following statistical measures are calculated to measure the level of appraisal and uniformity of appraisal: mean, median, weighted mean, and coefficient of dispersion. Where there are insufficient sales to conduct performance the studies are conducted but the insufficient sample size is noted.

GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform.

Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

### **2. Analysis of Available Resources**

Staffing and budget requirements for the tax years subject to this plan are detailed in the annual budget as adopted by the board of directors and attached to the written biennial plan by reference. This reappraisal plan reflects the available staffing in tax years subject to this plan. Staffing will impact the cycle of real property re-inspection and personal property on-site review that can be accomplished in the 2015-2016 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 replacement cost new tables and depreciation tables are tested against verified sales data to insure they represent current market data. Information concerning, income, expenses, vacancies, and capitalization rates is gathered from reliable local sources and reviewed and updated. Asset cost information from business

personal property renditions and density schedules for business property from public and private sources may also be used.

Information systems support is detailed with year specific functions identified and system upgrades scheduled. Computer generated forms are reviewed for revisions. Legislative changes are scheduled for completion and testing. Existing maps and data requirements are specified and updates scheduled.

### **3. Planning and Organization**

A calendar of major key events with projected beginning and completion dates is prepared for tax years 2015 and 2016. The key events and the beginning and completion dates are subject to change depending on weather, staff availability, and other factors.

### **4. Mass Appraisal System**

Computer Assisted Mass Appraisal (CAMA) system revisions are specified and scheduled with Information Systems. All computer forms and Information System procedures are reviewed and revised as required each year. These procedures include, but are not limited to items such as review and revision of set-ups, user rights and security; performance of January 1 functions; monitoring and testing of releases and patches; performance of requested data queries; production of system generated reports; and performance of processing functions for notices, certification and supplements.

## **REAL PROPERTY VALUATION**

Revisions to cost models, income models, and market models, are specified, updated and tested for each year that is designated as a reappraisal year.

Cost schedules are tested with market data (sales) to insure that the appraisal district is in compliance with Texas Property Tax Code, Sec. 23.011. Replacement cost new tables as well as depreciation tables are tested for accuracy and uniformity using ratio studies and compared with cost data from generally accepted sources. The appraisal district utilizes data from Marshall & Swift Valuation Services which is a recognized industry leader.

Land tables are updated using current market data (sales) and then tested with ratio studies. Value modifiers are developed and tested with ratio studies.

Income, expense, occupancy, and capitalization rate data is updated in the income models and tested.

## **BUSINESS PERSONAL PROPERTY VALUATION**

Replacement cost new data is taken from business personal property renditions and other reliable sources of data. Depreciation tables are reviewed for accuracy and uniformity. Depreciation is based on the Comptroller's most current business personal

property depreciation tables. Valuation procedures are reviewed and modified as needed and tested.

## NOTICING PROCESS

The notice of appraised value forms are reviewed and edited for necessary updates and revisions required by law. In the reappraisal year, notices of appraised value are mailed for all properties on the appraisal roll. In the non-reappraisal year, notices are mailed for business personal property, industrials, utilities, oil and gas properties and other properties that meet the notice criteria required by Sec. 25.19 Property Tax Code.

## 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 necessary. Production of documentation is tested for compliance with Sec. 41.461 of the Property Tax Code.

### **5. Data Collection Requirements**

Field and office procedures are reviewed and revised as required for data collection. Activities scheduled for each tax year include addition of new construction, removals due to movement or demolition, addition of new subdivisions, addition of new business personal property accounts, deletion of existing business personal property accounts, addition of new oil and gas leases, deletion of plugged oil and gas leases, consideration of remodeling, re-inspection of problematic market areas, re-inspection of problematic property categories, re-inspection of problematic individual properties, re-inspection of the universe of properties on a specific cycle (once every two years).

Field appraisers are assigned areas throughout the appraisal district to conduct property inspections on new and existing real property and business personal property in an annual field effort. The appraisers are trained to collect and record a common set of data characteristics in accordance with established guidelines and procedures. The data gathered during the field inspection is recorded on a field card and it is later entered into the district's CAMA system and maintained there. The type of data for business personal property includes use type and details on inventory levels and the condition of machinery and equipment. Quality control is conducted at support and data entry levels. Data that is not fully or accurately reported is referred to the appraiser who conducted the field inspection for clarification.

Comprehensive descriptions of field and office procedures are included in the district's appraisal manual which is attached to this reappraisal plan by reference.

## NEW CONSTRUCTION/DEMOLITION/REMODELING/RE-CHECKS

Field and review procedures for new construction, demolition and remodeling are identified and revised as required. Field production standards are monitored. Only reliable sources of information concerning new construction, demolition and remodeling are used. All areas, inside and outside of the designated reinspection zones, are annually inspected on a generalized basis to address new improvements, demolition, remodeling, and other updates to property characteristics. Re-checks are performed in all areas if the appraiser or property owner feels that a reinspection is necessary to verify property characteristic data. The sequence of reinspections is made at the discretion of the appraiser and depends on staff availability, weather and other factors.

#### RE-INSPECTION OF PROBLEMATIC MARKET AREAS/PROPERTY TYPES/PROPERTIES

Property types, market areas, and individual properties that fall outside of the normal range of generally accepted statistical measures are determined to be problematic. Field reviews are conducted to verify and/or correct property characteristic data. The sequence of reinspections is made at the discretion of the appraiser and depends on staff availability, weather and other factors. Sales confirmation data is re-verified and additional sales data is researched if necessary and available.

#### REINSPECTION OF THE UNIVERSE OF PROPERTIES

Sec. 25.18 of the Texas Property Tax Code requires a re-inspection of the universe of properties at least once every three years. The plan calls for re-inspection, as defined in Sec. 28.15 b (1), every two years. The re-inspection requirements for tax years 2015 and 2016 are identified and scheduled on the key events calendar and map which is attached to this report.

For tax year 2015 all real properties are reinspected in the following zones: Zone 1, Zone 2 and Zone 3.

For tax year 2016 all real properties are reinspected in the following zones: Zone 4, Zone 5, and Zone 6.

Additionally, as previously mentioned, all areas, inside and outside of the designated reinspection zones are annually inspected on a generalized basis to address new improvements, demolition, remodeling, and other updates to property characteristics. **Finally, a reinspection of any property may be conducted at any time, if deemed necessary to verify property characteristic data.** The sequence of reinspections is made at the discretion of the appraiser and depends on staff availability, weather and other factors.

Complex properties assigned to Capitol Appraisal Group LLC are reinspected on an annual basis.

Business personal property accounts are identified for reinspection each year through renditions or other data filed by property owners or by other reliable public and private means of identification including, but not limited to the previous year's appraisal roll, vehicles listing services, business directories, public and private records, Internet research, and as part of the appraiser's physical inspection process.

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

Sales information must be verified and property characteristic data contemporaneous with the date of sale captured. The sales ratio tools require that the property sold must equal the property appraised in order for the statistical analysis to be valid. Procedures for field and office verification are established and monitored.

### **6. Pilot Studies**

New and/or revised mass appraisal models are tested on certain market areas, property categories, and individual properties. 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 tested.

### **7. 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 established by the IAAO Standard on Ratio Studies. Property values in all market areas are updated each reappraisal year. Properties in selected market areas are updated in non-reappraisal years. Tax year 2015 is a reappraisal year. Tax year 2016 is not a reappraisal year. The non-reappraisal year is used to add new construction, new subdivisions, new business personal property, new oil and gas leases, adjust for changes in property characteristics that affect value, and adjust the previous year's values on individual properties, property categories or market areas where the level of appraisal and/or uniformity of appraisal is unacceptable. However, the following property types are reappraised annually: oil and gas reserves, business personal property, industrial real property, industrial personal property, utilities, special inventory residential property, and properties qualified for agricultural use or timber use productivity valuation.

### **8. The Mass Appraisal Report**

Each tax year the mass appraisal report required by the tax code 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 STANDARDS RULE 6-9 of USPAP. The mass appraisal report is attached to this plan by reference.

## **9. Value Defense**

Evidence to be used by the appraisal district to meet the burden of proof for market value and equity in both informal and formal appraisal review board hearings is specified and tested.

## **LEGAL REQUIREMENTS**

### **Introduction**

The Texas Property Tax Code requires that all taxable property, with some exceptions, is appraised at its market value as of January 1<sup>st</sup>. Other sections of the code describe the methods and techniques that must be used and identify the exceptions to the market value standard. In addition to Sec. 6.05 (i) and Secs. 25.18 (a) and (b) as listed above, the major sections governing the appraisal of property are included in the following section of the reappraisal plan.

### **Market Value**

Market value is defined in Sec. 1.04 (7) Texas Property Tax Code as follows:

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

### **Appraisals Generally**

Sec. 23.01, Texas Property Tax Code, reads as follows:

- (a) "Except as otherwise provided by this chapter, all taxable property is appraised at its market value as of January 1.
- (b) 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, and all available evidence that is specific to the value of the property shall be taken into account in determining the property's market value.

(c) In determining the market value of a residence homestead, the chief appraiser may not exclude from consideration the value of other residential property that is in the same neighborhood as the residence homestead being appraised and would otherwise be considered in appraising the residence homestead because the other residential property:

(1) was sold at a foreclosure sale conducted in any of the three years preceding the tax year in which the residence homestead is being appraised and was comparable at the time of sale based on relevant characteristics with other residence homesteads in the same neighborhood; or

(2) has a market value that has declined because of a declining economy.”

### **Consideration of Alternate Appraisal Methods**

Sec. 23.0101 Property Tax Code reads as follows:

“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 one.”

### **Cost Approach**

Sec. 23.011 Property Tax Code reads as follows:

“If the chief appraiser uses the cost method of appraisal to determine the market value of real property, the chief appraiser shall:

- (1) use cost data obtained from generally accepted sources;
- (2) make any appropriate adjustments for physical, functional or economic obsolescence;
- (3) make available to the public on request cost data developed and used by the chief appraiser as applied to all properties within a property category;

- (4) clearly state the reason for any variation between generally accepted costs data and locally produced cost data if the data vary by more than 10 percent; and
- (5) make available to the property owner on request all applicable market data that demonstrate the difference between the replacement costs of the improvements to the property and the depreciated value of the improvements.”

### **Income Method**

Sec. 23.012 Property Tax Code reads as follows:

- (a) If the income method is the most important method to use to determine the market value of real property, the chief appraiser shall:
  - (1) “analyze comparable rental data available to the appraisal district or the potential earnings capacity of the property, or both, to estimate the gross income potential of the property;
  - (2) analyze comparable operating expense data available to the appraisal district to estimate the operating expenses of the property;
  - (3) analyze comparable data available to the appraisal district to estimate rates of capitalization or rates of discount; and
  - (4) base projections of future rent or income potential and expenses on reasonably clear and appropriate evidence.
- (b) In developing income and expense statements and cash flow projections, the appraisal district shall consider:
  - (1) historical information and trends;
  - (2) current supply and demand factors affecting those trends; and
  - (3) anticipated events such as competition from other similar properties under construction.”

### **Market Data Comparison Method**

Sec. 23.013 Property Tax Code reads as follows:

- (a) “If the chief appraiser uses the market data comparison method of appraisal to determine the market value of real property, the chief appraiser shall use comparable sales data and shall adjust the comparable sales to the subject property.
- (b) A sale is not considered to be a comparable sale unless the sale occurred within 24 months of the date as of which the market value of the subject property is to be determined, except that a sale that did not occur during that

period may be considered to be a comparable sale if enough comparable properties were not sold during that period to constitute a representative sample.

- (c) A sale of a comparable property must be appropriately adjusted for any change in the market value of the comparable property during the period between the date of the sale of the comparable property and the date as of which the market value of the subject property is to be determined.
- (d) Whether a property is comparable to the subject property shall be determined based on similarities with regard to location, square footage of the lot and improvements, property age, property condition, property access, amenities, views, income, operating expenses, occupancy, and the existence of easements, deed restrictions, or other legal burdens affecting marketability.”

The following sections of the Property Tax Code identify the exceptions to the market value standard.

In regard to personal property, Sec. 1.04 (5) defines personal property as “... personal property that can be seen, weighed, measured, felt or otherwise perceived by the senses but does not include a document or other perceptible object that constitutes evidence of a valuable interest, claim, or right and has negligible or no intrinsic value.” Generally, business personal property consists of tangible personal property owned by a business or individual for the production of income.

Sec 23.01 (d) requires that the market value of a residence homestead be determined solely on the basis of the current use of the property regardless of its highest and best use.

Sec. 23.01 (e) prohibits an increase in appraised value of a property where the preceding year’s value was established by an appraisal review board, an arbitrator or a court under certain circumstances.

Sec. 23.12 (a) defines the market value of an inventory as the price for which it would sell as a unit to a purchaser who would continue the business and includes residential real property and personal property inventories.

Secs. 23.121, 23.124, 23.1241, and 23.127 require a special inventory valuation for certain inventories of motor vehicles, vessels and outboard motors, heavy equipment and retail manufactured housing.

Sec. 23.17 requires that non-producing minerals in place be appraised at the price for which the interest would sell while the mineral is in place and not being produced.

Sec. 23.175 mandates certain procedures regarding pricing of oil and gas and discounting future income.

Sec. 23.18 requires minimal valuation of property owned by a non-profit homeowners' organization for the benefit of its members.

Sec. 23.19 mandates special appraisal for property occupied by stockholders of corporation incorporated under cooperative association act.

Sec. 23.21 requires appraisals to consider certain governmental restrictions on low income housing rents.

Sec. 23.215 mandates special appraisal of certain non-exempt property used for low-income or moderate-income housing.

Sec. 23.22 requires that the appraisal of property where land use is restricted by a governmental entity consider the effect of the restriction.

Sec. 23.24 prohibits separately appraising personal property that is already included in the appraisal of real property for which the income approach to value was used.

Special appraisal provisions are required as follows : (1) Agricultural land Sec. 23.41 (2) Open space land Sec. 23.52 (3) Timber land Sec. 23.59 and Sec. 23.73 (4) Restricted timberland Sec. 23.9803.

Sec. 23.83 and 23.93 require special appraisal of restricted land.

Under Sec.23.23 of the Texas Property Tax Code, certain residence homesteads are eligible to receive a limitation on the amount the appraised value of the property may increase from one year to the next. The limitation takes effect on January 1 of the tax year following the first year the property owner qualifies for any homestead exemption and expires on January 1 of the first tax year that neither the owner nor the owner's spouse qualifies for a homestead exemption.

The appraised value of a qualified residence homestead may not exceed the lessor of :

- (1) The market value of the property for the most recent year that the property was determined by the appraisal office; or
- (2) The sum of (a) 10% of the appraised value of the property for the preceding tax year (b) the appraised value of the property for the preceding tax year; and (c) the market value of all new improvements to the property.

The homestead cap is administered according to the GCAD guidelines for determining and calculating increases in value to residential homesteads subject to the homestead cap.

## **DETAILED DESCRIPTION OF APPRAISAL ACTIVITIES**

### **VACANT REAL PROPERTY**

The plan calls for biennial reappraisal of vacant real properties with 2015 being a reappraisal year and 2016 being a non re-appraisal year.

Identifying properties to be appraised: Vacant real properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Subject property data is verified through previously existing records and through information provided by other reliable sources.

Defining market areas in the district: The diversity of vacant real properties in the district requires the use of market areas. Market areas are defined by the physical, economic, governmental, and social forces that influence property values. The effects of these forces are used to identify, classify and delineate or stratify similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes. Delineations can involve the establishment of physical boundaries or stratification based on attribute analysis. Characteristics such as location, size, price range and physical characteristics may be considered. During implementation of this plan, new market areas may be identified and existing ones may be modified or eliminated based on changing market patterns and other information that becomes available.

Identifying property characteristics that affect property value in each market area: The appraiser identifies the location and market area of the property; physical attributes of the property such as size, location, physical characteristics, price range; legal and economic attributes; and easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances or legal restrictions, through physical inspection, legal instruments and documents and analysis of data and information from other reliable sources.

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's primary approach to value for vacant real properties is the sales comparison approach because it most directly reflects the actions of the buyers and sellers in the market.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: After considering all three approaches to value (cost, sales comparison, and income) the sales comparison approach is used. The income approach is not used because this type of property does not have adequate income producing ability to attract buyers and the cost approach is not applicable since the properties are vacant.

Reviewing the appraisal results to determine value: To the extent possible, year to year property value changes for the subject property are examined. Sales ratio studies are conducted to determine if the level of appraisal and uniformity of appraisal is acceptable. GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform. Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

### **Description of Valuation Methods for Vacant Real Property**

Acreage properties are valued by using the sales comparison approach. An analysis of land sales is conducted and a series of land tables, based on location, size, physical characteristics, are constructed in the CAMA system. The table values are expressed on a per acre basis and represent a base value with the base being 1.00. Adjustments for road frontage are made by applying the road factors. On properties that are in subdivisions, road factors are not generally applied because the road frontage effect on value is already accounted for in the land table for that particular subdivision. The appropriate land table is selected and applied to the subject property. The table values may be modified for location, access, topography, shape, size, physical characteristics or any individual characteristics affecting a property's value that are not adequately addressed in the GCAD's mass appraisal system.

Subdivision acreage properties are valued by using the sales comparison approach. An analysis of land sales is conducted and a series of land tables, based on factors such as location, size, price range, use type and other characteristics found to affect value, are constructed in the CAMA system. The table values are expressed on a per acre basis and represent a base value with the base being 1.00. On acreage properties that are in subdivisions, road factors are not generally applied because the road frontage effect on value is already accounted for in the land table for that particular subdivision. The table values may be modified for location, access, topography, shape, size, physical characteristics or any individual characteristics affecting a property's value that are not adequately addressed in the GCAD's mass appraisal system

Lots are valued by using the sales comparison approach. An analysis of land sales is conducted and a series of land tables, based on factors such as location, size, price range, use type and other characteristics found to affect value, are constructed in the CAMA system. The table values are expressed on a per lot basis, a square foot basis or a front foot basis and represent a base value with the base being 1.00. The table values may

be modified for location, size, access, topography, shape, physical characteristics, or any individual characteristics affecting a property's value that are not adequately addressed in the GCAD's mass appraisal system.

### Market Area Analysis

The first step in market area analysis is to identify a group of properties that share certain common traits. A market area for analysis purposes is a grouping of properties where the physical, governmental and social forces acting on the properties are generally the same. Once, a market area has been identified, the next step is to delineate its boundaries. Some of the factors for land include location, size, price range and physical characteristics. Analyses are made to note the degree of similarity in these factors and identify points where these characteristics change and note physical and other characteristics that coincide with these points so that market areas may be delineated. Market area adjustments are made on the basis of ratio studies that compare recent sales prices of properties within a delineated market area with the appraised value. The ratios derived from dividing the appraisal district's values by the sales prices will indicate the level of appraisal currently produced. The values for all properties within the market area are adjusted to trend the appraised values to market value. Once the market area values are applied, a second ratio study is conducted to compare the proposed appraised values with the recent sales prices and the final market area values are selected and applied uniformly to all properties within the area. A comparison or ranking of adjustments from similar market areas may be used to select an appropriate adjustment for a subject area where there is insufficient sales data.

The following formula describes the models used for vacant land:

$$\text{ASPCP} / \text{U} = \text{PU}$$

$$\text{Then } \text{MV} = \text{PU} \times \text{SU}$$

Where:

ASPCP =	Adjusted sales prices of comparable properties
U =	Unit of comparison, ( square foot, acre, front foot, etc.)
PU =	Price per unit of comparison
ASPU =	Adjusted sales price per unit of comparison
SU =	Subject property's number of units of comparison

### Highest and Best Use

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 maximally productive. The highest and best use of vacant lots and small acreage tracts is for homesites. The highest

and best uses of larger acreage tracts are for (1) agricultural use (2) recreational use (3) interim use as farm and ranch land with a future highest and best use of being subdivided into smaller tracts for sale and (4) rural homesites. The highest and best use for a relatively small number of vacant lots and small acreages is commercial.

## **SINGLE FAMILY RESIDENTIAL REAL PROPERTY**

The plan calls for biennial reappraisal of single family residential properties with 2015 being a reappraisal year and 2016 being a non-reappraisal year.

Identifying properties to be appraised: Single family residential properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Subject property data is verified through previously existing records and through information provided by other reliable sources.

Defining market areas in the district: The diversity of housing types and geographic areas in the district requires the use of market areas. Market areas are defined by the physical, economic, governmental, and social forces that influence property values. The effects of these forces are used to identify, classify and delineate or stratify similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes. Delineations can involve the establishment of physical boundaries or stratification based on attribute analysis. Characteristics such as location, price range, age of dwelling, quality and condition of dwelling, and square footage of living area may be considered. During implementation of this plan, new market areas may be identified and existing ones may be modified or eliminated based on changing market patterns and other information that becomes available.

Identifying property characteristics that affect property value in each market area: The appraiser identifies the location and market area of the property; physical attributes of the property such as size, age, quality and condition; price range, and legal and economic attributes; and easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances or legal restrictions, through physical inspection, legal instruments and documents and analysis of data and information from other reliable sources

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's primary approach to value for single family residential properties uses a hybrid cost-sales comparison approach that accounts for market area influences.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: After considering all three approaches to value (cost, sales comparison, and income) the hybrid cost sales-comparison approach is chosen because it accounts for market area influences not otherwise specified in the cost approach applied at large. The income approach is not used because single family residential properties are not generally purchased for their ability to produce income.

Reviewing the appraisal results to determine value: To the extent possible, year to year property value changes are examined. Sales ratio studies are conducted to determine if the level of appraisal and uniformity of appraisal are acceptable. GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform. Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

### **Description of Valuation Methods for Single Family Residential Property**

#### **Replacement Cost New**

The cost approach is used to value single family residential properties in the appraisal district.

Residential land values are specified by the sales comparison approach as described in the section of this plan addressing vacant real property.

The approach establishes replacement cost new (RCN) using a comparative unit method --- cost per square foot of living area. RCN is specified by Marshall & Swift for different levels of quality of construction, exterior characteristics, and different sizes is determined. Costs for building additives such as porches and garages are expressed in terms of a square foot cost based on a percentage of the base cost of the living area. Building component costs for items in excess of base cost, such as fireplaces and extra bathrooms, are expressed as a lump sum basis. Heat and air RCN is expressed in terms of square foot cost. For outbuildings and building components with

A local modifier to the Marshall & Swift RCN is determined by analyzing a group of sold properties consisting of new construction and then applied to the Marshall & Swift indicated costs. The final modified costs are set up in a series of cost schedules where properties are classified by quality of construction, type of construction, and size. The scheduled costs may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

#### **Depreciation**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence. Physical depreciation refers to the physical deterioration of a structure and is measured by the cost to cure the defect. Functional obsolescence refers to deficiencies or superadequacies within the structure. Economic obsolescence is loss in value from forces external to the property.

GCAD's residential depreciation tables are based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

Schedules have been developed for improvements with typical economic lives of various lengths. The schedules reflect what is considered typical for a structure at a certain effective age. However, scheduled depreciation may be overridden with a percent good to account for the condition of otherwise similar structures that depreciate at lesser or more rapid rates than what is considered to be typical and that cannot be adequately accounted for in the benchmark depreciation system. Adjustments for functional and economic obsolescence may be made if warranted.

### Market Area Analysis

The district's primary approach to value for residential properties uses a hybrid cost-sales comparison approach that accounts for market area influences not otherwise specified in the cost approach as it is applied at large. Market area adjustments are needed to trend values produced by the cost approach closer to actual sales prices of property within a given market area. The sales used to determine the market area adjustment will reflect the market influences and conditions only for the specified market area.

The first step in market area analysis is to identify a group of properties that share certain common traits. A market area for analysis purposes is a grouping of properties where the physical, governmental and social forces acting on the properties are generally the same. Once, a market area has been identified, the next step is to delineate its boundaries. Some of the factors for single family residential include location, improvement size, price range quality, condition and physical characteristics. Analyses are made to note the degree of similarity in these factors and identify points where these characteristics change and note physical and other characteristics that coincide with these points so that market areas may be delineated.

Market area adjustments are made on the basis of ratio studies that compare recent sales prices of properties within a delineated market area with the properties values

as determined by the cost approach. The ratios derived from dividing the appraisal district's cost approach values by the sales prices will indicate the level of appraisal currently produced by the at large cost approach. The appropriate market area adjustment, whether upward or downward, is then applied to trend the appraised values to market value. Once the market area adjustment is applied, a second ratio study is conducted to compare the proposed appraised values with the recent sales prices and a final market area adjustment is selected and applied uniformly to all properties within the area. A comparison or ranking of adjustments from similar market areas may be used to select an appropriate adjustment for a subject area where there is insufficient sales data.

The following formula denotes the formula generally used for single family residential:

$$MV = LV + MAA[ (RCN -D)]$$

Where:

MV	=	Market Value
LV	=	Land Value
MAA	=	Market Area Adjustment
RCN	=	Replacement Cost New
D	=	Depreciation

#### Adjustment and Modifiers

If warranted, adjustments and modifiers may be applied to single family residential properties to address the individual characteristics affecting the property's market value that otherwise cannot be adequately accounted for in the benchmark valuation system. For small value improvement components, such as outbuildings, the contributory value of the improvements may be expressed as a lump sum value.

In determining the market value of a residence homestead, the sales of other residential property in the same neighborhood may not be excluded from consideration because the other property (1) was sold at a foreclosure sale in any of the three years preceding the tax year in which the residential homestead is being appraised and was comparable at the time of sale to the subject property; or (2) has a market value that has declined because of a declining economy.

#### Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. The highest and best use of single family residential property is normally its current use. However, under Sec. 23.01 (c), the market value of a residence homestead shall be determined solely on the basis of the property's value as a residence homestead,

regardless of whether the residential use of the property by the owner is considered to be the highest and best use of the property.

### Residential Homesteads Subject To The Homestead Cap

The appraised value of a residence homestead may not exceed the lesser of :

- I. The market value of the property for the most recent year that the market value was determined by the appraisal office; or
- II. The sum of (a) 10 percent of the appraised value of the property for the preceding tax year (b) the appraised value of the property for the preceding tax year; and (c) the market value of all new improvements to the property. The term “new improvement” means an improvement to a residence homestead made after the most recent appraisal of the property that increases the market value of the property and the value of which is not included in the appraised value of the property for the preceding tax year. New improvements do not include repairs to or ordinary maintenance of an existing structure or the grounds or another feature of the property.
- III. If the appraised value for the current year exceeds the limits established by the above criteria, then a homestead cap adjustment is calculated and applied to reduce the appraised value to the allowable level. A review of homestead cap adjustments is made with larger adjustments subject to further review
- IV. The limitation takes effect on January 1 of the tax year following the first year the property owner qualifies for any homestead exemption and expires on January 1 of the first tax year that neither the owner nor the owner’s spouse qualifies for a homestead exemption. When an owner makes application for a homestead exemption, the qualification year is entered into the district’s computer assisted mass appraisal system.
- V. The field appraiser maintains a record of the date of physical inspection, changes made based upon that inspection and determinations as to whether changes constitute new improvement value. Values for new physical additions and further progress of construction work in progress are calculated as new improvement value. Changes in value resulting from ordinary maintenance and remodeling are not considered as new improvements.

### **MULTI-FAMILY RESIDENTIAL REAL PROPERTY**

The plan calls for biennial reappraisal of multi-family residential properties with 2015 being a reappraisal year and 2016 being a non re-appraisal year.



S	V/C	V/C	=	vacancy/collection loss
=	EGR	EGR	=	effective gross rent
+	SI	SI	=	secondary income
=	EGI	EGI	=	effective gross income
S	OPEX	OPEX	=	operating expenses
=	NOI	NOI	=	net operating income
\	CR	CR	=	capitalization rate
=	MV	MV	=	market value

Potential gross income is the amount of annual rent the property is capable of producing at 100 percent occupancy. Market rent is the rate prevailing in the market for comparable properties and is used in the income approach. Potential gross income may be calculated on a square foot basis (of rentable area) or on a per unit basis.

Vacancy and collection loss is the loss of income to unrented space and tenant delinquencies and is expressed as a percentage of potential gross income.

Effective gross rent is the potential gross income less the vacancy and collection loss.

Secondary income is miscellaneous income from sources such as parking, vending machines and laundry facilities.

Effective gross income is the potential gross income, less the vacancy and collection loss plus secondary income.

Operating expenses are the expenses necessary to operate the property so that it will continue to generate income over time. Operating expenses include items such as hazard insurance, utilities, and maintenance. These operating expenses may be expressed as a percentage of the effective gross income. Management expenses are expenses associated with the supervision and the operation of the property and are expressed as a percentage of effective gross income. A reserve for replacement is a provision for components that have shorter economic lives than the property such as heat and air systems. Reserve for replacements are calculated on a straight-line basis where 100% is divided by the number of years in the remaining economic life of the component and then multiplied by the cost of the component. Reserves may also be expressed as a percentage of effective gross income. Depreciation is not an allowable expense since this factor is accounted for in the capitalization rate. Debt service is not an allowable expense because it is a financing issue based on the amount of debt and interest rates and cannot; therefore, be used to estimate property value. Property taxes are not included as operating expenses because they are accounted for in the capitalization rate.

All income and expense data shall be analyzed as if the subject property is being operated under typical management conditions. Expenses shall be allowed only if they are necessary and reasonable for operating the property. Future rental income and expenses shall be projected only from clear and appropriate evidence.

An overall capitalization rate that reflects an appropriate rate of return and recapture of capital is developed in accordance with the GCAD capitalization guidelines. The capitalization rate shall consider the following: safe rate, risk rate, illiquidity rate, investment management rate, recapture rate (if necessary) and effective ad valorem tax rate.

According to Sec. 23.24, in determining the market value of real property on the basis of rental income, the appraisal district may not take into account any personal property valued as a portion of the income of the real property, and the market value of the real property must include the combined value of the real property and the personal property.

The cost approach may also be specified for multi-family property.

Multi-family residential land values are specified by the sales comparison approach as described in the section of this plan addressing vacant real property.

The approach establishes replacement cost new (RCN) using a comparative unit method --- cost per square foot of building area. Since there are insufficient sales of newly constructed multi-family properties to build a local modifier, the local modifier used for single family residential property is applied here. The final modified costs are set up in a series of cost schedules where properties are classified by quality of construction and type of construction. The scheduled costs may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

## Depreciation

GCAD's commercial depreciation is based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation. A percent good is assigned based on observed condition and relative utility of the building. Adjustments for functional and economic obsolescence may be made if warranted.

The following formula denotes the cost approach formula generally used for multi-family residential:

$$MV = LV + [(RCN - D)]$$

Where:

MV	=	Market Value
LV	=	Land Value
RCN	=	Replacement Cost New
D	=	Depreciation

### Adjustments and Modifiers

If warranted, adjustments and modifiers may be applied to multi-family properties to address the individual characteristics affecting the property's market value that otherwise cannot be adequately accounted for in the benchmark valuation system. For small value improvement components, such as outbuildings, the contributory value of the improvements may be expressed as a lump sum value.

### Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. The highest and best use of multi-family residential property is normally its current use.

## COMMERCIAL REAL PROPERTY

The plan calls for biennial reappraisal of commercial real properties with 2015 being a reappraisal year and 2016 being a non re-appraisal year.

Identifying properties to be appraised: Commercial properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Subject property data is verified through previously existing records and through information provided by other reliable sources.

Defining market areas in the district: The diversity of commercial property types and geographic areas in the district requires the use of market areas. Market areas are defined by the physical, economic, governmental, and social forces that influence property values. The effects of these forces are used to identify, classify and delineate or stratify similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes. Delineations can involve the establishment of physical

boundaries or stratification based on attribute analysis. Characteristics such as location, age, and quality and condition may be considered. During implementation of this plan, new market areas may be identified and existing ones may be modified or eliminated based on changing market patterns and other information that becomes available.

Identifying property characteristics that affect property value in each market area: The appraiser identifies the location and market area of the property; use type, physical attributes of the property such as size, age, quality and condition; legal and economic attributes; and easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances or legal restrictions through physical inspection, legal instruments and documents and analysis of data and information from other reliable sources.

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's primary approach to value for commercial properties is the cost approach with the income approach being used for those properties considered to be income producing properties.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: After considering all three approaches to value (cost, sales comparison, and income) the appraiser will reconcile multiple models by selecting the model that best addresses the individual characteristics of the subject property.

Reviewing the appraisal results to determine value: To the extent possible, year to year property value changes for the subject property are examined. Sales ratio studies are conducted to determine if the level of appraisal and uniformity of appraisal is acceptable. GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform. Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

### **Description of Valuation Methods for Commercial Property**

The cost approach is specified for commercial property.

Commercial land values are specified by the sales comparison approach as described in the section of this plan addressing vacant real property.

The approach establishes replacement cost new (RCN) using a comparative unit method --- cost per square foot of building area. Since there are insufficient sales of newly constructed commercial properties to build a local modifier the Marshall & Swift modifier used for residential property is applied here. For commercial properties, improvements are classified by the following since there is a different market for each group: (1) Use types for which they were designed such as office and retail. (2)

Construction types which refer particularly to the materials used in the exterior walls and frame. (3) Quality of construction. The final modified costs are set up in a series of cost schedules where properties are classified by use type, quality of construction, and type of construction. The scheduled costs may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

### Depreciation

GCAD's commercial depreciation is based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation. A percent good is assigned based on observed condition and relative utility of the building. Adjustments for functional and economic obsolescence may be made if warranted.

The cost approach for commercial properties may be specified as follows:

$$MV = LV + MAA [(RCN - D)]$$

Where:

MV	=	Market Value
LV	=	Land Value
MAA	=	Market Area Adjustment
RCN	=	Replacement Cost New
D	=	Depreciation

The income approach is applied to those commercial properties which are viewed by buyers and sellers as income producing properties: multi-tenant office buildings, motels, etc.

Where

PGI	=	potential gross income
S V/C	=	vacancy/collection loss
= EGR	=	effective gross rent
+ SI	=	secondary income
= EGI	=	effective gross income
S OPEX	=	operating expenses
= NOI	=	net operating income
\ CR	=	capitalization rate
= MV	=	market value

Potential gross income is the amount of annual rent the property is capable of producing at 100 percent occupancy. Market rent is the rate prevailing in the market for comparable properties and is used in the income approach. Potential gross income may be calculated on a square foot basis (of rentable area) or on a per unit basis.

Vacancy and collection loss is the loss of income to unrented space and tenant delinquencies and is expressed as a percentage of potential gross income.

Effective gross rent is the potential gross income less the vacancy and collection loss.

Secondary income is miscellaneous income from sources such as parking, vending machines and laundry facilities.

Effective gross income is the potential gross income, less the vacancy and collection loss plus secondary income.

Operating expenses are the expenses necessary to operate the property so that it will continue to generate income over time. Operating expenses include items such as hazard insurance, utilities, and maintenance. These operating expenses may be expressed as a percentage of the effective gross income. Management expenses are expenses associated with the supervision and the operation of the property and are expressed as a percentage of effective gross income. A reserve for replacement is a provision for components that have shorter economic lives than the property such as heat and air systems. Reserve for replacements are calculated on a straight-line basis where 100% is divided by the number of years in the remaining economic life of the component and then multiplied by the cost of the component. Reserves may also be expressed as a percentage of effective gross income. Depreciation is not an allowable expense since this factor is accounted for in the capitalization rate. Debt service is not an allowable expense because it is a financing issue based on the amount of debt and interest rates and cannot; therefore, be used to estimate property value. Property taxes are not included as operating expenses because they are accounted for in the capitalization rate.

All income and expense data shall be analyzed as if the subject property is being operated under typical management conditions. Expenses shall be allowed only if they are necessary and reasonable for operating the property. Future rental income and expenses shall be projected only from clear and appropriate evidence.

An overall capitalization rate that reflects an appropriate rate of return and recapture of capital is developed in accordance with the GCAD capitalization guidelines. The capitalization rate shall consider the following: safe rate, risk rate, illiquidity rate, investment management rate, recapture rate (if necessary) and effective ad valorem tax rate.

On some properties, such a motels, a gross income multiple is used instead of the above described income approach where

AGI		AGI = Annual Gross Income
X	GIM	GMI = Gross Income Multiplier
=	MV	MV = Market Value

According to Sec. 23.24, in determining the market value of real property on the basis of rental income, the appraisal district may not take into account any personal property valued as a portion of the income of the real property, and the market value of the real property must include the combined value of the real property and the personal property.

### Adjustments and Modifiers

If warranted, adjustments and modifiers may be applied to commercial properties to address the individual characteristics affecting the property's market value that otherwise cannot be adequately accounted for in the benchmark valuation system. For small value improvement components, such as outbuildings, the contributory value of the improvements may be expressed as a lump sum value.

### Market Area Analysis

Market area adjustments are needed to trend values produced by the cost approach closer to actual sales prices of property within a given market area. The sales used to determine the market area adjustment will reflect the market influences and conditions only for the specified market area.

The first step in market area analysis is to identify a group of properties that share certain common traits. A market area for analysis purposes is a grouping of properties where the physical, governmental and social forces acting on the properties are generally the same. Once, a market area has been identified, the next step is to delineate its boundaries. Some of the factors for commercial include use type, location, improvement size, price range quality, condition and physical characteristics. Analyses are made to note the degree of similarity in these factors and identify points where these characteristics change and note physical and other characteristics that coincide with these points so that market areas may be delineated.

Market area adjustments are made on the basis of ratio studies that compare recent sales prices of properties within a delineated market area with the properties' value as determined by the cost approach. The ratios derived from dividing the appraisal district's cost approach values by the sales prices will indicate the level of appraisal currently produced by the at large cost approach. The appropriate market area adjustment, whether upward or downward, is then applied to trend the appraised values to market

value. Once the market area adjustment is applied, a second ratio study is conducted to compare the proposed appraised values with the recent sales prices and a final market area adjustment is selected. A comparison or ranking of adjustments from similar market areas may be used to select an appropriate adjustment for a subject area where there is insufficient sales data.

### Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. The highest and best use of commercial real property is normally its current use.

### MOBILE HOME PROPERTY

The plan calls for biennial reappraisal of mobile properties with 2015 being a reappraisal year and 2016 being a non-reappraisal year.

Identifying properties to be appraised: Mobile home properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Subject property data is verified through previously existing records and through information provided by other reliable sources.

Defining market areas in the district: The market area for mobile homes is countywide in nature; therefore, no market areas are established for this type of property.

Identifying property characteristics that affect property value in each market area: The appraiser identifies physical attributes such as size, age and condition.

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's primary approach to value for mobile home properties uses the cost approach.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: After considering all three approaches to value (cost, sales comparison, and income) the cost approach is chosen. The income approach is not used because mobile home properties are not generally purchased for their ability to produce income.

Reviewing the appraisal results to determine value: To the extent possible, year to year property value changes are examined. Sales ratio studies are conducted to determine if the level of appraisal and uniformity of appraisal are acceptable. GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform. Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

## **Description of Valuation Methods for Mobile Home Property**

### **Replacement Cost New**

The cost approach is used to value mobile properties in the appraisal district.

Mobile home land values are specified by the sales comparison approach as described in the section of this plan addressing vacant real property.

The approach establishes replacement cost new (RCN) using a comparative unit method --- cost per square foot of living area. Costs for building additives such as porches and garages are expressed in terms of a square foot cost based on a percentage of the base cost of the living area. Building component costs for items in excess of base cost, such as fireplaces and extra bathrooms, are expressed as a lump sum basis. RCN as specified by Marshall & Swift for different levels of quality of construction, exterior characteristics, and different sizes is determined.

A local modifier is determined by analyzing a group of sold properties consisting of new construction and then applied to the Marshall & Swift indicated costs. The final modified costs are set up in a series of cost schedules where properties are classified by quality of construction, type of construction, and size. The scheduled costs may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

### **Depreciation**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence. Physical depreciation refers to the physical deterioration of a structure and is measured by the cost to cure the defect. Functional obsolescence refers to deficiencies or superadequacies within the structure. Economic obsolescence is loss in value from forces external to the property.

GCAD's mobile home depreciation tables are based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization

will have an effective age less than the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

Schedules have been developed for improvements with typical economic lives of various lengths. The schedules reflect what is considered typical for a structure at a certain effective age. However, scheduled depreciation may be overridden with a percent good to account for the condition of otherwise similar structures that depreciate at lesser or more rapid rates than what is considered to be typical and that cannot be adequately accounted for in the benchmark depreciation system. Adjustments for functional and economic obsolescence may be made if warranted.

The following formula denotes the formula generally used for mobile home properties:

$$MV = LV + [(RCN - D)]$$

Where:

MV	=	Market Value
LV	=	Land Value
RCN	=	Replacement Cost New
D	=	Depreciation

#### Adjustment and Modifiers

If warranted, adjustments and modifiers may be applied to mobile properties to address the individual characteristics affecting the property's market value that otherwise cannot be adequately accounted for in the benchmark valuation system. For small value improvement components, such as outbuildings, the contributory value of the improvements may be expressed as a lump sum value.

#### Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. The highest and best use of a mobile home property is normally its current use. However, under Sec. 23.01 (c), the market value of a residence homestead shall be determined solely on the basis of the property's value as a residence homestead, regardless of whether the residential use of the property by the owner is considered to be the highest and best use of the property.

## Residential Homesteads Subject To The Homestead Cap

The appraised value of a residence homestead may not exceed the lesser of:

- II. The market value of the property for the most recent year that the market value was determined by the appraisal office; or
- II. The sum of (a) 10 percent of the appraised value of the property for the preceding tax year (b) the appraised value of the property for the preceding tax year; and (c) the market value of all new improvements to the property. The term “new improvement” means an improvement to a residence homestead made after the most recent appraisal of the property that increases the market value of the property and the value of which is not included in the appraised value of the property for the preceding tax year. New improvements do not include repairs to or ordinary maintenance of an existing structure or the grounds or another feature of the property.
- III. If the appraised value for the current year exceeds the limits established by the above criteria, then a homestead cap adjustment is calculated and applied to reduce the appraised value to the allowable level. A review of homestead cap adjustments is made with larger adjustments subject to further review
- IV. The limitation takes effect on January 1 of the tax year following the first year the property owner qualifies for any homestead exemption and expires on January 1 of the first tax year that neither the owner nor the owner’s spouse qualifies for a homestead exemption. When an owner makes application for a homestead exemption, the qualification year is entered into the district’s computer assisted mass appraisal system.
- V. The field appraiser maintains a record of the date of physical inspection, changes made based upon that inspection and determinations as to whether changes constitute new improvement value. Values for new physical additions and further progress of construction work in progress are calculated as new improvement value. Changes in value resulting from ordinary maintenance and remodeling are not considered as new improvements.

## **RURAL LAND WITH MISCELLANEOUS IMPROVEMENTS**

The plan calls for biennial reappraisal of miscellaneous rural improvement properties with 2015 being a reappraisal year and 2016 being a non re-appraisal year.

Identifying properties to be appraised: Miscellaneous rural improvement properties are identified as part of the appraiser’s physical inspection process each year,

through data submitted by the property owner, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Subject property data is verified through previously existing records and through information provided by other reliable sources.

Defining market areas in the district: The market area for miscellaneous rural improvements is county-wide in nature; therefore, no separate market areas are established for this type of property.

Identifying property characteristics that affect property value in each market area: Since no market areas are established for this type of property, market area characteristics are not identified.

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's primary approach to value for miscellaneous rural improvement properties is the cost approach.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: After considering all three approaches to value (cost, sales comparison, and income) the appraiser will reconcile multiple models by selecting the model that best addresses the individual characteristics of the subject property.

Reviewing the appraisal results to determine value: To the extent possible, year to year property value changes for the subject property are examined. Sales ratio studies are conducted to determine if the level of appraisal and uniformity of appraisal is acceptable. GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform. Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

### **Description of Valuation Methods for Rural Land With Miscellaneous Improvements**

The cost approach is specified for rural miscellaneous improvement property

Land values are specified by the sales comparison approach as described in the section of this plan addressing vacant real property.

The approach establishes replacement cost new (RCN) using a comparative unit method -- cost per square foot of building area. For rural miscellaneous improvement properties, the following are considered: use types, construction types, quality of construction and square footage. For small value improvement components, such as outbuildings, the contributory value of the improvements may be expressed as a lump sum value.

The cost approach for miscellaneous rural improvement properties may be specified as follows:

$$MV = LV + [(RCN - D)]$$

Where:

MV	=	Market Value
LV	=	Land Value
RCN	=	Replacement Cost New
D	=	Depreciation

### Depreciation

GCAD's rural miscellaneous improvement depreciation is based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation. A percent good is assigned based on observed condition and relative utility of the building. Adjustments for functional and economic obsolescence may be made if warranted.

### **SPECIAL VALUATION PROPERTIES**

The plan calls for the reappraisal of special valuations properties on an annual basis.

Identifying properties to be appraised: Special valuation properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner on applications for special use valuation, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Subject property data is verified through previously existing records and through information provided by other reliable sources.

Defining market areas in the district: The market area for special use properties is regional in scope; therefore, no separate market areas are defined for this type of property.

Identifying property characteristics that affect property value in each market area: The appraiser identifies the physical attributes such as the different categories of land and the number of acres in each category.

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's approaches to value for special use properties are the income approaches specified in Sec. 23 Texas Property Tax Code.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: Since the income approaches to special use properties are required by statute, no other methods were considered or used.

Reviewing the appraisal results to determine value: To the extent possible, year to year property value changes for the subject property are examined. Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

### **Description of Valuation Methods for Special Valuation Properties**

Special valuation properties include the following categories: agricultural land, timber land and restricted timberland. Special use valuation properties must meet the qualifications set forth in Sec. 23 Texas Property Tax Code in order to receive special use valuation. All special use properties are also appraised at market value according to the methodology described in the foregoing section of valuation of vacant real property.

#### **AGRICULTURAL LAND**

Agricultural land is valued in accordance with Sec. 23 Texas Property Tax Code. Land is classified into categories such as native pasture and improved pasture. The categories may be further divided based on factors that influence the productive capacity of the category. For each category, a net-to-land is determined. Net to land means the average annual net income derived from the use of open space land that would have been earned from the land during the five year period preceding the year before the appraisal by an owner using ordinary prudence in the management of the land and the farm crops or livestock produced or supported on the land and, in addition, any income received from hunting or recreational leases. The net-to-land is calculated by considering the income that would be due the landowner under a cash lease (which is the typical lease arrangement for all categories of agricultural land in the area) and all expenses directly attributable to the agricultural use of the land. The net income remaining after expenses are deducted from gross income is then capitalized at the capitalization rate specified in

Sec. 23.53 to arrive at the productivity value. Cash leases are based on the results of an ongoing cash lease survey conducted by the district. Expenses include: property taxes, fencing expenses, and management expenses. Property taxes are determined by the actual taxes levied by the county's taxing units on agricultural land. Fencing expenses are based on Marshall & Swift costs and the most current agricultural census data available. Management costs are those costs incurred in the supervision and monitoring of the lease arrangement.

The model for agricultural land may be shown as follows:

Year 1	Year2	Year3	Year 4	Year 5
GL	GL	GL	GL	GL
+HL	+HL	+HL	+HL	+HL
=GI	=GI	=GI	=GI	=GI
Less:	Less:	Less:	Less:	Less:
PT	PT	PT	PT	PT
FE	FE	FE	FE	FE
ME	ME	ME	ME	ME
=NTL	=NTL	=NTL	=NTL	=NTL
Then:				
$(\text{NTL Year 1} + \text{NTL Year 2} + \text{NTL Year 3} + \text{NTL Year 4} + \text{NTL Year 5}) / \text{CR} = \text{PV}$				

Where:

GL = Grazing Lease  
 HL = Hunting Lease  
 GI = Gross Income  
 PT = Property Taxes  
 FE = Fencing expense  
 ME = Management Expense  
 NTL = Net to land  
 CR = Capitalization rate  
 PV = Productivity value (Rounded)

## TIMBERLAND

The appraisal of timberland is governed by provisions of the Sec. 23 Texas Property Tax Code which directs the State Comptroller to develop a manual for appraising timberland and requires appraisal districts to use the appraisal methodology set forth in the manual. Sec. 23.71 requires the appraisal district to use information from only four sources: United States Department of Agriculture, Natural Resources Conservation Service, Texas Forest Service, and Texas colleges and universities.

Timberlands are classed by forest type ( hardwood, pine, and mixed) and soil types (Class I, II, III, and IV), resulting in 12 categories such as Pine I, Pine II, Mixed II, Mixed III, etc.

A net to land is determined for each classification. Net to land means the average net income that would have been earned by a category of land over the preceding five years by a person using ordinary prudence in the management of the land and the timber produced on the land. The net to land for each year is determined by multiplying the land's potential average annual growth rate, expressed in tons, by the stumpage value, expressed in price per ton, of large pine sawtimber, small pine sawtimber, pine pulpwood, hardwood sawtimber, hardwood pulpwood, and any other significant timber product and by then subtracting from the product reasonable management costs and other reasonable expenses directly attributable to the production of timber. Stumpage prices are determined by using information collected for all types of timber sales including cutting contract and gatewood sales. The net-to-land for each category is capitalized at the capitalization rate specified in Sec. 23.74.

A summary of the timberland appraisal methodology follows:

- (1) Classify timber into three forest types — pine, mixed and hardwood.
- (2) Classify timberland into four soil types based on productive capacity — I, II, III, IV
- (3) Estimate average annual average timber growth rate
- (4) Convert growth rates to the same scale in which forest products selling prices are reported.
- (5) Estimate average annual timber prices — Texas Forest Service Reports
- (6) Estimate average annual potential gross income of timber growth.
- (7) Estimate average annual costs of producing timber — Texas Forest Service for State Comptroller
- (8) Estimate net income of timber growth.
- (9) Capitalize net income by statutory capitalization rate to arrive at per acre timber value. (Rounded)

#### RESTRICTED TIMBERLAND

The same procedures utilized for timberland are also used in the valuation of restricted timberland except that the timberland valuation is multiplied by 50% to arrive at the restricted timberland valuation.

## Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. Sec.23 Texas Property Tax Code requires that special valuation properties be appraised based on their current use.

## INVENTORY RESIDENTIAL

The plan calls for annual re-appraisal of inventory residential properties.

Identifying properties to be appraised: Inventory residential properties are identified as part of the appraiser's physical inspection process each year, through data submitted by the property owner, or by other reliable means of identification, including deeds or other legal documentation, photographs, maps and property sketches.

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Subject property data is verified through previously existing records and through information provided by other reliable sources.

Defining market areas in the district: The diversity of subdivision types and geographic areas in the district requires the use of market areas. Market areas are defined by the physical, economic, governmental, and social forces that influence property values. The effects of these forces are used to identify, classify and delineate or stratify similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes. Delineations can involve the establishment of physical boundaries or stratification based on attribute analysis. Characteristics such as location, price range and land size may be considered. During implementation of this plan, new market areas may be identified and existing ones may be modified or eliminated based on changing market patterns and other information that becomes available.

Identifying property characteristics that affect property value in each market area: The appraiser identifies the location and market area of the property; physical attributes of the property such as size and location; legal and economic attributes; and easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances or legal restrictions, through physical inspection, legal instruments and documents and analysis of data and information from other reliable sources.

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's primary approach to value for special inventory residential properties uses the discounted cash flow method of the income approach since these

properties are purchased for their ability to produce income . However, if reliable cost or market data is available, the cost or market approach may be used.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: After considering all three approaches to value (cost, sales comparison, and income) the appraiser will reconcile multiple models by selecting the model that best addresses the individual characteristics of the subject property.

Reviewing the appraisal results to determine value: Year to year property value changes for the subject property are examined. GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform.

### **Description of Valuation Methods for Inventory Residential Property**

The district uses the discounted cash flow method of the income approach to determine the values for residential inventory properties. Since there are generally insufficient sales of residential inventories, the sales comparison approach is not used. If reliable and accurate cost data is available, the cost approach may be used.

The following outlines the income approach to residential inventory:

- (1) Project the number of years which will be required to sell all of the lots and the number of lots which will be sold each year during that period.
- (2) For each year, estimate the sales prices of the lots that will be sold and multiply the estimated sales price by the projected number of lots that will be sold to arrive at a gross income.
- (3) For each year, estimate the taxes, management costs and sales expenses.
- (4) Deduct the total expenses from the gross income to arrive at a net income.
- (5) Apply an appropriate discount rate to the stream of projected net incomes to arrive at market value.

### **Market Area Analysis**

The first step in market area analysis is to identify a group of properties that share certain common traits. A market area for analysis purposes is a grouping of properties where the physical, governmental and social forces acting on the properties are generally the same. Once, a market area has been identified, the next step is to delineate its boundaries. Some of the factors for residential inventory include location, size, price range and physical characteristics. Analyses are made to note the degree of similarity in

these factors and identify points where these characteristics change and note physical and other characteristics that coincide with these points so that market areas may be delineated. The values for all properties within the market area are determined using the above described methodology and final market area values are selected and applied uniformly to all properties within the area.

### Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. The highest and best use of special inventory residential property is normally its current use.

### **BUSINESS PERSONAL PROPERTY**

The plan calls for annual re-appraisal of business personal property.

Identifying properties to be appraised: Business personal property assets are identified through renditions or other data filed by property owners or by other reliable public and private means of identification including, but not limited to the previous year's appraisal roll, vehicles listing services, business directories, public and private records, Internet research, and as part of the appraiser's physical inspection process each year,

Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process and through information provided by the owner in renditions or other reports. Subject property data is verified through previously existing records, public records, service provided records, and through information provided by other reliable sources.

Defining market areas in the district: The market area for business personal property is regional in scope; therefore, no separate market areas are established for this type of property in the district.

Identifying property characteristics that affect property value in each market area: The appraiser identifies factors such as physical attributes, use type, age and condition,

Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: The district's primary approach to value for business personal property uses a cost approach.

Applying the conclusions reflected in the model to the characteristics of the properties being appraised: After considering all three approaches to value (cost, sales comparison, and income) the cost approach is selected. The sales comparison approach and income approach are generally not used due to inadequate data.

Reviewing the appraisal results to determine value: Year to year property value changes for the subject property are examined. GCAD also conducts office reviews on a limited basis that determine the appropriateness of appraised values and compares unit values and percentage changes on similar properties to verify that the CAMA values are accurate and uniform. Properties are subject to review by the Property Tax Assistance Division of the State Comptroller's Office through its property value study.

### **Description of Valuation Methods for Business Personal Property**

The district's primary approach to the valuation of business personal property is the cost approach.

Business personal property is valued at its current level of trade. The valuation of business personal property recognizes three distinct levels of trade: manufacturing, wholesale and resale. Incremental costs are added to a product as it advances from one level of trade to the next, increasing its value along the way.

Business personal property is generally classified according to use types to identify businesses having common attributes such as convenience stores, auto parts stores, etc. Then the property is grouped into two principal categories: (1) furniture, fixtures and equipment (FFE) and (2) inventory. Other categories may include leased equipment, supplies, consigned goods, and vehicles.

If the cost information is not provided by the owner in a business personal property rendition, the cost is estimated using costs reported for similar assets or other generally accepted sources of costs data. . Costs may be expressed on a category basis or in terms of individual assets. A cost override may be applied, if in the appraiser's judgment, such override is warranted. The district is beginning to implement, on a limited basis, use of a schedule of per unit costs organized by business type and quality and density levels.

The district uses the most current version of the business personal property depreciation table used by the Property Tax Assistance Division of the State Comptroller's Office as a basis for depreciating business personal property. The table establishes a schedule of economic lives for assets that can be applied against a specific asset or a category of FFE such as convenience store or fast food. The appropriate economic life is selected and the percent good for the year of acquisition is applied so that  $RCN \times \text{Percent Good} = \text{Market Value}$ . A depreciation override may be applied if the condition or effective age of a property cannot be adequately accounted for in the benchmark depreciation system. Also, adjustments for functional and economic obsolescence may be made if warranted.

If the RCN of FFE is not provided on the rendition, but a good faith estimate of market value is provided, the appraiser considers the validity of the estimate in accordance with the rendition procedures in the appraisal manual. If the property owner

does not file a rendition and the business type is not identified in the schedule of per unit costs, the appraiser may assign a value to the FFE based on a comparison or ranking of other businesses as well as any other reliable sources.

Inventory values are based on information reported by property owners in business personal property renditions. If the property owner does not file a rendition and the business type is not identified in the schedule of per unit costs, the appraiser may assign a value to the inventory based on a comparison or ranking of other businesses as well as any other reliable sources.

Inventories may include raw materials, goods in progress and finished goods or goods held for resale. Inventory is basically the price the property would sell for as a unit to a purchaser who would continue the business. The district is beginning to implement, on a limited basis, use of a schedule of per unit costs organized by business type and quality and density levels. A cost override for inventory may be applied, if in the appraiser's judgment, such override is warranted. Adjustments may be made for factors such as shrinkage or obsolescence.

Vehicle values are based on values provided by an outside vendor and property owner rendition information. Overrides for cost and depreciation on vehicles may be applied, if in the judgment of the appraiser, such override is warranted.

Business personal property defined as "special inventory" is appraised in accordance with the statutory requirements of Sec. 23 Texas Property Tax Code.

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 maximally productive. The highest and best use of business personal property is generally its current use.

According to Sec. 23.24, if real property is appraised by a method that takes into account the value of furniture, fixtures and equipment in or on the real property, the furniture, fixtures and equipment shall not be subject to additional appraisal as personal property.

## **INDUSTRIAL REAL PROPERTY**

The plans calls for annual re-appraisal of selected industrial real properties through professional services contract with a valuation engineering firm, Capitol Appraisal Group, LLC.

- (1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal.

Industrial properties are identified as part of the appraiser's physical inspection process each year and through submitted data by the property owner. The appraiser may also refer to legal documents, photography and other descriptive items.

- (2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Confidential rendition, assets lists and other confidential data also provide additional information. Subject property data is verified through previously existing records and through published reports.
- (3) Defining market areas in the district: Market areas for industrial properties tend to be regional, national and sometimes international. Published information such as prices, financial analysis and investor services reports are used to help define market area.
- (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: Among the three approaches to value (cost, income and market), industrial properties are most commonly appraised using replacement/reproduction cost new less depreciation models because of readily available cost information. If sufficient income or market data are available, those appraisal models may also be used.
- (5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property and that are based on the most reliable data when multiple models are used. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process.

### **Description of Valuation Methods for Industrial Real Property**

Industrial properties are appraised using replacement/reproduction cost new less depreciation models. Replacement costs are estimated from published sources, other publicly available information, and comparable properties. Reproduction costs are based on actual investment in the subject or comparable properties adjusted for typical changes in cost over time. Depreciation is calculated on the age/life method using typical economic lives and depreciation rates based on published sources, market evidence, and

the experience of knowledgeable appraisers. Adjustments for functional and economic obsolescence may be made if utilization and income data for the subject property justify such. Income Approach models (direct capitalization and discounted cash flow) are also used when economic and/or subject property income information is available. Capitalization and discount rates are based on published capital costs for the industry of the subject property. A market data model based on typical selling prices per unit of capacity is also used when appropriate market sales information is available.

Because cost information is the most readily available type of data, the cost approach model is always considered and used. If sufficient data is available either of both of the other two models may also be considered and used. The market data and income approach models may need to be reduced by the value of the land in order to arrive at a value of improvements and personal property.

Model calibration in the cost approach involves the selection of the appropriate service life for each type or class of property. Further calibration can occur through the use of utilization or through-put data provided by the owner or agent. Income approach calibration involves the selection of the cost of capital or discount rate appropriate to the type of property being appraised as well as adjusting the projected income stream to reflect the individual characteristics of the subject property. Model calibration in the market data approach involves adjusting sales prices of comparable properties to reflect the individual characteristics of the subject property.

In reconciling multiple model results for a property the appraiser considers the model results that best address the individual characteristics of the subject property and that are based on the most reliable data while maintaining equalization among like properties. Final results for each property may be found on the appraisal district's appraisal roll.

#### Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. Land valuation for industrial properties is the responsibility of appraisal district staff as is the highest and best use analysis of the site. Sites are analyzed for highest and best use as though they were vacant. Highest and best use analysis of the improvements is based on the likelihood of the continued use of the improvements in their current and/or intended use.

#### **INDUSTRIAL PERSONAL PROPERTY**

The plan calls for annual re-appraisal of selected industrial personal properties through a professional services contract with a valuation engineering firm, Capitol Appraisal Group, LLC.

- (1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Through inspection the appraiser identifies personal property to be appraised. The appraiser begins with properties from the previous tax year and identifies new properties from visual identification and/or publications, newspaper articles, or information obtained through the interview of property owners. The appraiser may also refer to other documents, both public and also confidential, to assist in identification of these properties. Such documents might include but are not limited to the previous year's appraisal roll, vehicle listing services and private directories.
- (2) Identifying and updating relevant characteristics of each property in the appraisal records: Data identifying and updating relevant characteristics of the subject properties are collected as part of the inspection process through directories and listing services as well as through later submissions by the property owner, sometimes including confidential rendition. These data are verified through previously existing records and through public reports.
- (3) Defining market areas in the district: Market areas for industrial personal property are generally either regional or national in scope. Published price sources are used to help define market areas.
- (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics. Personal property is appraised using replacement/reproduction cost new less depreciation models. Income approach models are used when economic and/or subject property income is available, and a market data model is used when appropriate market sales information is available.
- (5) Comparison and Review: The appraiser reconciles multiple models by considering the model that best addresses the individual characteristics of the subject property. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a

more experienced appraiser also contributes to the review process.

### **Description of Valuation Methods for Industrial Personal Property**

Industrial personal properties are appraised using replacement/reproduction cost new less depreciation models. Replacement costs are estimated from published sources, other publicly available information, and comparable properties. Reproduction costs are based on actual investment in the subject or comparable properties adjusted for typical changes in cost over time. Depreciation is calculated on the age/life method using typical economic lives and depreciation rates based on published sources, market evidence, and the experience of knowledgeable appraisers. Adjustments for functional and economic obsolescence may be made if utilization and income data for the subject property justify such. Income Approach models (direct capitalization and discounted cash flow) are also used when economic and/or subject property income information is available. Capitalization and discount rates are based on published capital costs for the industry of the subject property. A value estimated derived from an income approach model in which the operating income of a business was capitalized must be reduced by the value of any real property in order to arrive at the value of the operating personal property. A market data model based on typical selling prices per unit or per item of capacity is also used when appropriate market sales information is available. In the case of some personal property types, such as licensed vehicles, market data from published pricing guides is used to construct a market value model. In other cases, models are based on sales information available through published sources or through private sources.

Because cost information is the most readily available type of data, the cost approach model is always considered and used. If sufficient data is available either of both of the other two models may also be considered and used. The market data and income approach models may need to be reduced by the value of the land in order to arrive at a value of improvements and personal property.

Model calibration in the cost approach involves the selection of the appropriate service life for each type or class of property. Further calibration can occur through the use of utilization or through-put data provided by the owner or agent. Income approach calibration involves the selection of the cost of capital or discount rate appropriate to the type of property being appraised as well as adjusting the projected income stream to reflect the individual characteristics of the subject property. Model calibration in the market data approach involves adjusting sales prices of comparable properties to reflect the individual characteristics of the subject property.

In reconciling multiple model results for a property the appraiser considers the model results that best address the individual characteristics of the subject property and that are based on the most reliable data while maintaining equalization among like properties. Final results for each property may be found on the appraisal district's appraisal roll.

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

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. Highest and best use analysis of industrial personal property is based on the likelihood of the continued use of the property in its current and/or intended use.

## UTILITIES

The plan calls for annual re-appraisal of utility properties through a professional services contract with a valuation engineering firm, Capitol Appraisal Group, LLC.

- (1) Identifying properties to be appraised: Appraisal of properties is limited to those indicated in the contract with the appraisal district, unless additionally requested by the appraisal district. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal. Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and also confidential to assist in identification of these properties. Due to the varied nature of utility, railroad, and pipeline properties there is no standard data collection form or manual. New permitting documents on record with the Railroad Commission of Texas provide a source to identify potential new pipeline projects but does not provide indication if the project was actually started, completed, or a distinct location of the proposed project. Every effort is made to discover new utility, railroad, and pipeline properties through personal observation combined with permitting documents.
- (2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through data collected as part of the inspection process and through later submissions by the property owner, sometimes including confidential rendition. Additional data are obtained through public sources, regulatory reports and through analysis of comparable properties.
- (3) Defining market areas in the district: Market areas for utility, railroad and pipeline property tend to be regional or national in scope. Financial analyst and investor services reports are used to help define market areas.
- (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: For all

three types of property, the appraiser must first form an opinion of highest and best use. Among the three approaches to value (cost, income and market), pipeline value is calculated using a replacement/reproduction cost new less depreciation model [RCNLD]. In addition to the RCNLD indicator, a unit value model may also be used if appropriate data are available. Utility and railroad property are appraised in a manner similar to pipeline except that the RCNLD model is not used.

- (5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property when multiple models are used. Year-to year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process. These types of property are also subject to review by the Property Tax Assistance Division of the Texas Comptroller's Office through its Property Value Study.

### **Description of Valuation Methods for Utility Properties**

For all pipelines a value is calculated using a Replacement Cost New Less Depreciation (RCNLD) model. This involves first calculating the cost of building a new pipeline of equal utility using current prices. The Replacement Cost New (RCN) is a function of location, length, diameter, and composition. Depreciation is then subtracted from RCN to produce the final value estimate. Depreciation is defined as the loss of value resulting from any cause. The three common forms of depreciation are physical, functional, and economic. Physical depreciation is accounted for on the basis of the age of the subject pipeline. Functional and economic obsolescence (depreciation) can be estimated through the use of survivor curves or other normative techniques. Specific calculations to estimate abnormal functional and/or economic obsolescence can be made on the basis of the typical utilization of the subject pipeline.

After deductions from RCN have been made for all three forms of depreciation the remainder is the RCNLD or cost approach model indicator of value.

In addition to the RCNLD indicator, a unit value model may also be used for those pipelines for which appropriate income statements and balance sheets are also available. Generally, this model is used for those pipelines that by regulation are considered to be common carriers. The unit value model must be calculated for the entire pipeline system.

The unit value model typically involves an income approach to value and a rate base cost approach. The income approach is based on a projection of expected future typical net operating income (NOI). The projected NOI is discounted to a present worth

using a current cost of capital that is both typical of the industry and reflective of the risks inherent in the subject property. The unit value model cost approach is typically an estimation of the current rate base of the subject pipeline (total investment less book depreciation allowed under the current form of regulation). An additional calculation is made to detect and estimate economic obsolescence. Any economic obsolescence is deducted from the rate base cost less book depreciation to achieve a final cost indicator. The unit value model may also include a stock and debt approach in lieu of a market data approach. The stock and debt approach involves finding the total value of the owner's liabilities (equity and debt) and assuming that they are equal to the value of the assets. The two (or three, if the stock and debt approach is included) unit value indicators are then reconciled into a final unit appraisal model indicator of value. The unit value must then be reconciled with the RCNLD model indicator of value for the entire pipeline system being appraised. The final correlated value of the system can then be allocated among the various components of the system to determine the tax roll value for each pipeline segment.

Utility and railroad properties are appraised in a manner similar to pipeline except the RCNLD model is not used. For all three types of property (utility, railroad, and pipeline) the appraiser must first form an opinion of highest and best use. If the highest and best use of the operating property is the current use under current regulation, the unit value model is considered highly appropriate. If the highest and best use is something different, then the RCNLD model may be more appropriate.

Compressor stations, pump stations, improvements, and related facilities are appraised using a replacement cost new less depreciation model.

Model calibration in the RCNLD model involves the selection of the appropriate service life for each type or class of property. Further calibration can occur through the use of utilization or through-put data provided by the owner or agent. Model calibration in the unit value cost approach involves the selection of the appropriate items to include in the rate base calculation and selection of the best measure of obsolescence, if any. Income approach calibration involves the selection of the cost of capital or discount rate appropriate to the type of property being appraised as well as adjusting the projected income stream to reflect the individual characteristics of the subject property. Model calibration in the stock and debt approach involves allocating sales prices of debt and equity to reflect the contribution to value of the operating property of the subject company.

In reconciling multiple model results for a property the appraiser considers the model results that best address the individual characteristics of the subject property while maintaining equalization among like properties. Final results for each property may be found on the appraisal district's appraisal roll.

Land valuation for utility and pipeline properties is the responsibility of appraisal district staff as is the highest and best use analysis of the site.

The rate-base cost approach, stock and debt approach, and income approach models must be reduced by the value of the land in order to arrive at a value of improvements, personal property, and other operating property.

#### Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and maximally productive. Sites are analyzed for highest and best use as though they were vacant. Highest and best use analysis of the improvements is based on the likelihood of the continued use of the improvements in their current and/or intended use. Railroad corridor land is included in the appraisal of the operating property. The highest and best use of railroad corridor land is presumed to be as operating property.

### **OIL AND GAS PROPERTIES**

The plan calls for annual reappraisal of minerals interests through professional services contract with a valuation engineering firm, Capitol Appraisal Group, LLC.

- (1) Identification of new property and its situs. As subsurface mineral properties lie within the earth, they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, CAGL obtains monthly oil and gas lease information from the Railroad Commission of Texas [RRC] to compare against oil and gas properties already identified. The situs of new properties is determined using plats and W-2/G-1 records from the RRC, as well as CAGL's in-house map resources.
- (2) Identifying and updating relevant characteristics of all oil and gas properties to be appraised. Relevant characteristics necessary to estimate value of remaining oil or gas reserves are production volume and pattern, product prices, expenses borne by the operator of the property, and the rate at which the anticipated future income should be discounted to incorporate future risk. CAGL obtains information to update these characteristics annually from regulatory agencies such as the RRC, the Comptroller of Public Accounts, submissions from property owners and operators, as well as from published investment reports, licensed data services, service for fee organizations and through comparable properties, when available.
- (3) Defining market areas in the district and identifying property characteristics that affect property value in each market area. Oil

and gas markets are regional, national and international. Therefore they respond to market forces beyond defined market boundaries as observed among more typical real properties.

- (4) Developing an appraisal approach that best reflects the relationship among property characteristics affecting value and best determines the contribution of individual property characteristics. Among the three approaches to value (cost, income and market), the income approach to value is most commonly used in the oil and gas industry. Through use of the discounted cash flow technique in particular, the appraiser is able to bring together relevant characteristics of production volume and pattern, product prices, operating expenses and discount rate to determine an estimate of appraised value of an oil or gas property.
- (5) Comparison and Review. Use of the income approach is the first step in determining an estimate of market value. After that the appraiser reviews the estimated market value compared to its previous certified value and also compares it to industry expected payouts and income indicators. The appraiser examines the model's value with its previous year's actual income, expecting value to typically vary within in a range of 2-5 times actual annual income, provided all appropriate income factors have been correctly identified. Finally, periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser further expand the review process.

### **Description of Valuation Methods for Oil and Gas Properties**

The Income Method of Appraisal, as described in Section 23.012 of the Texas Property Tax Code, is the principal appraisal method used. The Market Data Comparison Method of Appraisal (section 23.013) and the Cost Method of Appraisal (section 23.011) are considered. Industry averages of reserve replacement cost and acquisition cost are used for comparative purposes. The non-disclosure nature of the laws of Texas makes market data comparison unreliable. However, if within the scope of Capitol's work assignment market sales disclosures on interests are available, then those data is considered. The nearly exclusive reliance on the income approach, using the discounted cash flow (DCF) technique adjusted for specific property risk and market conditions, is typical of the oil and gas industry. Fee for service organizations are used for survey data with respect to price expectations and discount rates, and licensed data services are used for Industry indicators detailing costs, income, acquisitions costs in dollars per barrel of oil equivalent (\$/BOE), finding and development costs (\$/BOE) and reserve replacement costs (\$/BOE) for over 100 E&P companies.

Due to the demands of Section 23.175 of the Texas Property Tax Code and the Texas Constitution, Capitol Appraisal Group, LLC takes great care to not appraise properties in excess of their fair market value. We analyze a segment of the Petroleum Producing E&P market, determining the impact on their stock and debt value of the pricing requirements of Sec. 23.175 and also the pricing that could be reasonably anticipated from the market. Capitol Appraisal Group LLC's opinion of oil and gas prices is guided by the market's anticipation of those prices through the futures market, oil and gas stock prices and oil and gas industry indexes. A base discount rate is developed using the Securities and Exchange Commission (SEC) 10k Standard Measure of Value, Before Federal Income Tax (BFIT), for a grouping of 20 Exploration and Production (E&P) companies, and then matching their 10k Standard Measure of Value (BFIT), reserves and costs, through a discounted cash flow (DCF) technique. This reserve and cost match is used with Capitol's developed pricing scenario and Section 23.175 pricing directives to determine a discount rate necessary to equal the stock and debt value of the companies, as of January 1 for a given tax year.

The Weighted Average Cost of Capital (WACC) technique is also performed for a subset of these companies grouped according to the Petroleum Producing Industry Exploration and Production companies used in the *The Valueline Investment Survey*. These separate pricing scenarios and the resulting discount rates derived from using the aforementioned stock and debt techniques are applied to the universe of oil and gas properties we appraise. In seeking to avoid appraising any oil and gas property **above** its fair cash market value, Capitol Appraisal employs a market adjustment factor (MAF) to its base discount rate in order to apply property specific risk(s). These factors, which create a wide range of discount rates for the properties that Capitol appraises, are necessary to equitably evaluate disparate leases with respect to remaining reserves, price and costs. By performing two DCF income approach appraisals on each property, Capitol Appraisal provides clients with our opinion of market value, while always endeavoring to guard against appraising a mineral lease at greater than its fair cash market value. [A **jurisdictional exception** to the Discounted Cash Flow technique, as this process is described in the Statement on Appraisal Standards #2, 2003 edition of the Uniform Standards of Professional Appraisal Practice, must be taken. Section 23.175(a) of the Texas Property Tax Code both specifies the directives concerning oil and gas pricing that appraisal districts in Texas must follow and also that each appraisal district must adhere to procedure and methodology contained in manuals developed by the Property Tax Assistance Division (PTAD) of the Texas Comptroller of Public Accounts. Because adherence to this Property Tax Code directive, without discretion, can result in values greater than fair cash market value, we must express caution.]

The resulting oil and gas lease value is then allocated to each owner on the lease based upon his fractional mineral ownership interest. Royalty and working interests have different impacts on their respective values, since only working interests bear the costs of lease operation. Therefore royalty mineral interest owner's values are allocated from 100% of the appraised royalty value of the lease, according to their fractional royalty interest, while the working interest owner's value(s) are allocated from 100% of the

determined working interest value of the lease, according to their fractional working interest.

## **VALUE DEFENSE –OVERVIEW**

The following value defense issues apply to all property types.

Regardless of the nature of the protests or the type of property, the district attempts to resolve all protests in informal meetings before they are scheduled for an appraisal review board hearing. Informal hearings are conducted by phone, mail, e-mail or in person.

Informal hearings are seen as an opportunity to accomplish the following objectives:

- (1) To explain the basic reasons for the change in value
- (2) To correct simple errors and insure that the appraisal records are correct
- (3) To insure that properties are equitably valued
- (4) To insure that the appraisal takes into account all pertinent factors
- (5) To identify and address specific issues the owner is concerned about
- (6) To ascertain the owner's opinion of property value
- (7) To increase the owner's understanding of assessment administration

In the informal meetings, the appraiser explains the basic reasons for the change in value and presents a general explanation of the appraisal and the approach to value that was used, sales data, data specific to the subject property and considers information presented by the owner. In cases involving unequal appraisal issues, the appraiser may present ratio studies or a comparison of other properties. No confidential information shall be disclosed unless the property owner has requested information under Sec. 41.461. If this information is furnished to the property owner, the owner must sign an affidavit stating that the information is confidential and shall not be disclosed to other parties.

If the property owner and the appraiser agree to settle an issue, they should sign the GCAD waiver and settlement agreement, and the owner should be provided a copy.

If the appraiser and the property owner are unable to resolve the issue, a formal appraisal review board hearing is conducted. When taxpayers are scheduled for a formal hearing, they are provided at least a 15 day notice of the time, date and place of the hearing including all materials required by law. For formal hearings, the district follows the rules and procedures adopted by the Appraisal Review Board.

The appraisal district may be subject to three standards of proof in formal hearings.

Sec.41.43 Texas Property Tax Code places the burden of proof on the appraisal district in protests regarding over - appraisal of property and unequal appraisal of property. Evidence to be used by the appraisal district to meet its burden of proof for market value and equity protests in formal appraisal review board hearings is specified and tested.

Sec. 41.43 (a)1 increases the appraisal district's burden of proof on property that has a market or appraised value of \$1 million or less, for which the property owner submits an appraisal that meets the specific statutory requirements of Sec. 41.42. If those requirements are met, then the appraisal district must prove its assertion by "clear and convincing evidence" which is a higher standard than "a preponderance of the evidence."

Sec. 23.01 (c) increases the burden of proof on property where the value was lowered in the previous year by requiring that the appraisal district must prove its assertion to increase the value by "substantial evidence."

In formal hearings the district assigns the most qualified and knowledgeable staff member available to represent the district in the hearings. The validity of the appraisal model and the final value resulting from the model are reviewed and verified. All evidence is reviewed and verified for accuracy and completeness before it is presented to the board. All evidence presented by appraisal district staff members in formal hearings is presented under oath. The district makes available all information required by Sec. 41.461 if requested by the property owner. No confidential information is disclosed at a formal hearing unless such disclosure is authorized by law.

The district uses a data processing application to manage administration of appeals. The system tracks informal and formal appeals, scheduling of appeals for hearings, and final disposition of appeals. Statistical records of appeal activity are maintained for budgeting and planning purposes.

### **Value Defense Single Family Residential**

The informal value defense on a single family residential property relies upon a general explanation of the reason for the change in value and a summary of the appraisal and the approach to value that is used. Typically, the reasons for a change in appraised values involve changing sales prices in the market, application of a market area modifier, addition of new construction, completion of partially complete structures, or reappraisal because the previous year's value was inaccurate or unequal. More detailed explanations of the appraisal model may also be conducted. A comparable sales analysis as well as other pertinent data may be used.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of the approach to value. Typically, the following evidence may also be presented: summary sheet, a photograph of the residence (if available), a locational description, a comparable sales analysis, and any

other pertinent data. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

### **Value Defense Multi-Family Residential**

The informal value defense on a multi-family residential property relies upon a general explanation of the reason for the change in value and a summary of the appraisal and the approach to value that is used. Typically changes in valuations of multi-family properties occur because of changes in rents, expenses and/or capitalization rates. The district's income approach to value is generally used as evidence in the informal hearing.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of the approach to value. Typically, the following evidence is also presented: summary sheet, a locational description, detailed income approach and any other pertinent data. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

### **Value Defense Commercial**

The informal value defense on a commercial property relies upon a general explanation of the reason for the change in value and a summary of the appraisal and the approach to value that is used. Typically changes in value occur because of changes in rents, expenses and/or capitalization rates.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of the approach to value. Typically, the following evidence is also presented: summary sheet, a locational description, detailed income approach and any other pertinent data. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

### **Value Defense for Vacant Real Property**

The informal value defense on vacant real property relies upon a general explanation of the reason for the change in value and a summary of the appraisal and the approach to value that is used. Typically, changes in valuation of real vacant property involve changes in sales price or market areas. A general analysis of the district's comparable sales data is also used.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of the approach to value used. Typically, the following evidence is also presented: the summary sheet, a locational description and a comparable sales analysis. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

## **Value Defense Mobile Homes**

The informal value defense on a mobile home property relies upon a general explanation of the reason for the change in value and a summary of the appraisal and the approach to value that is used. Typically, the reasons for a change in appraised values involve changing sales prices in the market, application of a market area modifier, addition of new construction, completion of partially complete structures, or reappraisal because the previous year's value was inaccurate or unequal. More detailed explanations of the appraisal model may also be conducted. A comparable sales analysis as well as other pertinent data may be used.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of the approach to value used.. Typically, the following evidence is also presented: summary sheet, a photograph of the residence (if available), a locational description, a comparable sales analysis, and any other pertinent data. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

## **Value Defense Miscellaneous Rural Improvements**

The informal value defense on a miscellaneous rural improvement property relies upon a general explanation of the reason for the change in value and a summary of the appraisal and the approach to value that is used. Typically, the reasons for a change in appraised values addition of new construction, completion of partially complete structures, or reappraisal because the previous year's value was inaccurate or unequal. More detailed explanations of the appraisal model maybe conducted. Also, a comparable sales analysis as well as other pertinent data may be used.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of the approach to value used. Typically, the following evidence is also presented: summary sheet, a photograph of the residence (if available), a locational description, a comparable sales analysis, and any other pertinent data. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

## **Value Defense for Special Valuation Properties**

The informal value defense on special use valuation properties relies upon a general explanation of the reason for the change in value and a summary of the appraisal process set forth by the statutes. A fact sheet outlining the process is presented along with pertinent income, expense and cap rate data.

At the formal hearing, the district states its opinion of special use value and supports its opinion of value with an explanation and justification of the appraisal model, the approach to value, and the data variables used in the model. Equity evidence is

generated by GCAD using tools it has developed to compare other properties to the subject property.

### **Value Defense Special Inventory Residential Property**

The informal value defense on special inventory residential property generally relies upon a more detailed and complex explanation of the appraisal than other property types since these owners and their representatives are already knowledgeable about the appraisal process. The district's DCF analysis is reviewed with emphasis on lot prices, expenses, absorption rates, discount rates as well as any cost or market data or other pertinent information.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of the DCF analysis as well as presenting any other pertinent information. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

### **Value Defense for Business Personal Property**

The informal value defense on business personal property relies upon a general explanation of the reason for the change in value and a summary of the appraisal and the approach to value that is used. Generally, the district's explanation will focus on issues concerning RCN and the appropriate depreciation that should be assigned.

At the formal hearing, the district states its opinion of market value and supports its opinion of value with an explanation and justification of approach to value used. Equity evidence is generated by GCAD using tools it has developed to compare other properties to the subject property.

### **Value Defense for Industrial Real Property**

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Appraisers may present sales data or data specific to the property in defense of our values. Income, expense and capitalization data are reviewed and presented if available. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Property Taxpayer Remedies* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. Any income and expense information derived from the market is accumulated and developed into charts containing general data. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Equity evidence is generated by Capitol using programs and tools it has developed to compare other properties to the subject property.

Applicable appraisal reports and research data applicable to the property are also included in this packet.

### **Value Defense Industrial Personal Property**

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Appraisers may present general data specific to the property in defense of our values. Renditions other than that of the subject property will not be released. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Property Taxpayer Remedies* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. Capitol provides copies of appraisal reports generated by its Industrial Personal Property System for inclusion in the packet. As previously stated, no confidential renditions of competing properties will be provided as evidence.

### **Value Defense for Utilities**

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Appraisers may present sales data or data specific to the property in defense of our values. Income, expense and unit appraisal data (when applicable) are reviewed and presented if available. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Property Taxpayer Remedies* published by the State Comptroller's Office. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Equity evidence is generated by Capitol using programs and tools it has developed to compare other properties to the subject property. Applicable appraisal reports and research data applicable to the property are also included in this packet.

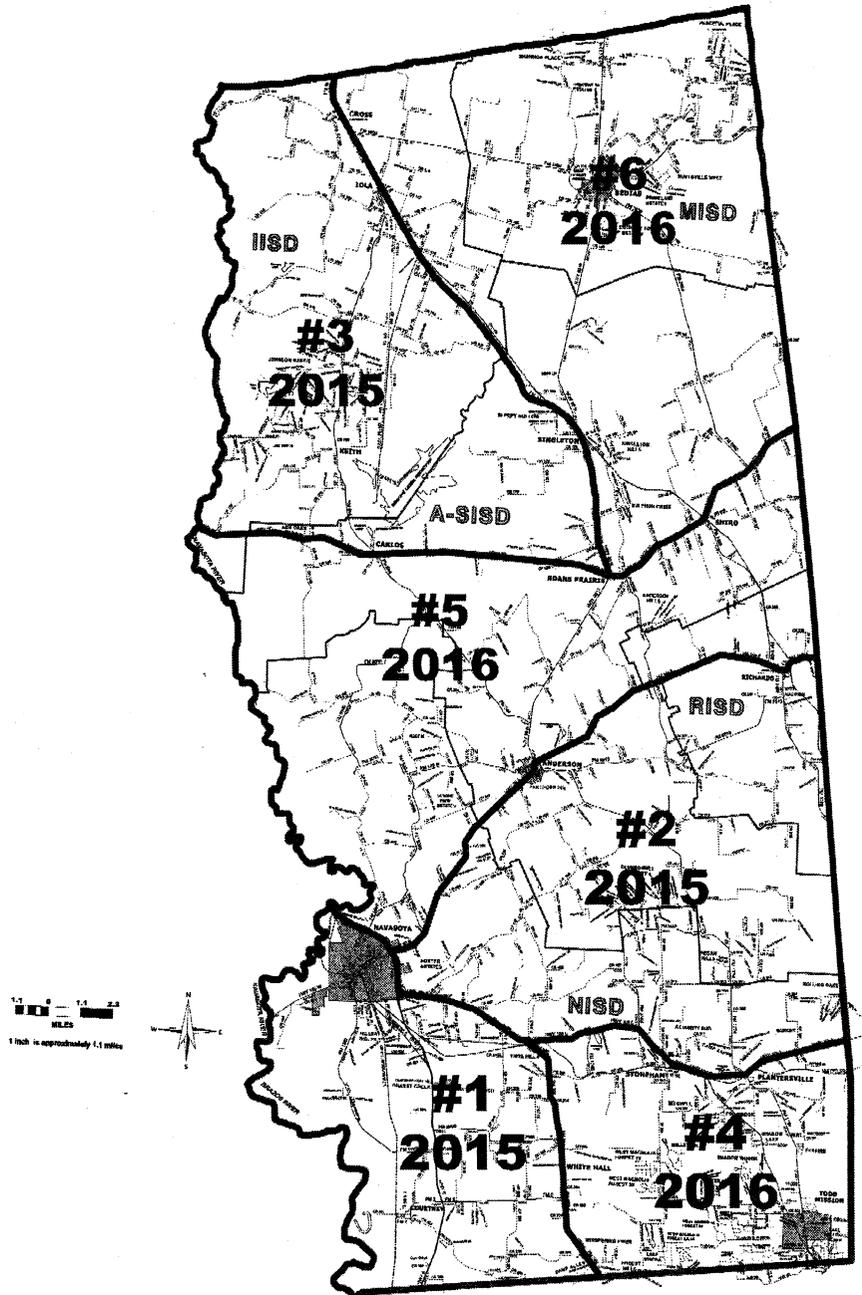
### **Value Defense for Oil and Gas Properties**

Informal hearings are conducted by phone, mail, or in person by Capitol Appraisal Group appraisers. Mineral operators and third party agents with the proper fiduciary in place may also view the parameters used in the appraisal of their oil and gas properties on Capitol's web site at [www.cagi.com](http://www.cagi.com). Other taxpayers with an interest in a mineral lease may request a copy of their appraisals at the same web site. Appraisers

may present recent production data and sales prices to compare with the actual income received by the taxpayer in defense of our values. Income, expense and capital expense data are reviewed and presented if available. If the taxpayer wishes to pursue a dispute further, the appraiser guides them through the initial phase of the formal protest procedures.

When taxpayers are scheduled for formal hearings they receive an ARB procedures pamphlet and a copy of *Property Taxpayer Remedies* published by the State Comptroller's Office. Since oil and gas leases have multiple owners, all owners who pursue a formal protest on the same property will be scheduled at the same time for a hearing. If protest hearing evidence is requested, the appraisal district has 14 days prior to the protest hearing to respond with characteristics and values of comparable properties regarding value disputes. No confidential income, expense or other information received from taxpayers on specific accounts will be released. Capitol uses its MINARB procedure to generate copies of the appraisal reports and product pricing data for the current and prior tax years. These reports are also included in this packet.

REINSPECTION ZONES FOR TAX YEAR 2015 AND 2016



## Re-Inspection Zones for 2015 and 2016

### For 2015:

**Zone #1** consists of those properties in an area bounded:

- (1) On the north by Hwy 6 at Brazos County Line continuing to Hwy 105 at FM 362
- (2) On the east by FM 362 from Hwy 105 to Grimes/Waller County Line
- (3) On the south by the Grimes/Waller County line, and
- (4) On the west by the Brazos and Navasota River

**Zone # 2\*** consists of those properties in an area bounded:

- (1) On the north by Hwy 90 at Navasota continuing to Anderson and then continuing along FM 149 East to the Grimes County Line
- (2) On the east by the Grimes County Line
- (3) On the south by Hwy 105 from the Grimes/Montgomery County Line continuing to the intersection of Hwy105 and Loop 6 at Navasota
- (4) On the west by Loop 6 from its intersection at Hwy 105 to its intersection with Hwy 90

**Zone #3\*\*** consists of those properties in an area bounded:

- (1) On the north by the Grimes County Line from the northwest corner of Grimes County to Hwy 39
- (2) On the east by Hwy 39 from the Grimes County Line to Singleton and continuing on Hwy 90 from Singleton to Roans Prairie.
- (3) On the south by Hwy 30 from Roans Prairie to the Brazos County Line
- (4) On the west by the Navasota River

\* All of the Townsites of Anderson and Richards are to be included in Zone #2.

\*\* All of the Townsites of Carlos and Iola are to be included in Zone #3.

**For 2016:**

**Zone #4\*** consists of those properties in an area bounded:

- (1) On the north by Hwy 105 from its intersection with FM 362 east to the Grimes County Line
- (2) On the east by the Grimes County Line
- (3) On the south by the Waller County Line
- (4) On the west by FM 362 from the Grimes County Line to its intersection with Hwy 105

**Zone #5\*\*** consists of those properties in an area bounded:

- (1) On the north by Hwy 30 from the Brazos County Line to the Walker County Line
- (2) On the east by the Grimes/Walker County Line
- (3) On the south by FM 149 East at the Grimes/Walker County Line to Anderson continuing on Hwy 90 to Navasota and continuing along Loop6 to the Brazos County Line
- (4) On the west by the Navasota River

**Zone #6\*\*\*** consists of those properties in an area bounded:

- (1) On the north by the Grimes /Madison County Line at FM 39 to the northeast corner of Grimes County
- (2) On the east by the Grimes /Walker County Line
- (3) On the south by Hwy 30 from the Grimes/Walker County Line to Roans Prairie
- (4) On the west by Hwy 90 from Roans Prairie to the Grimes/Madison County Line

\* All of the Townsite of Stoneham is to be included in Zone #4

\*\* All of the Townsite of Shiro is to be included in Zone #5

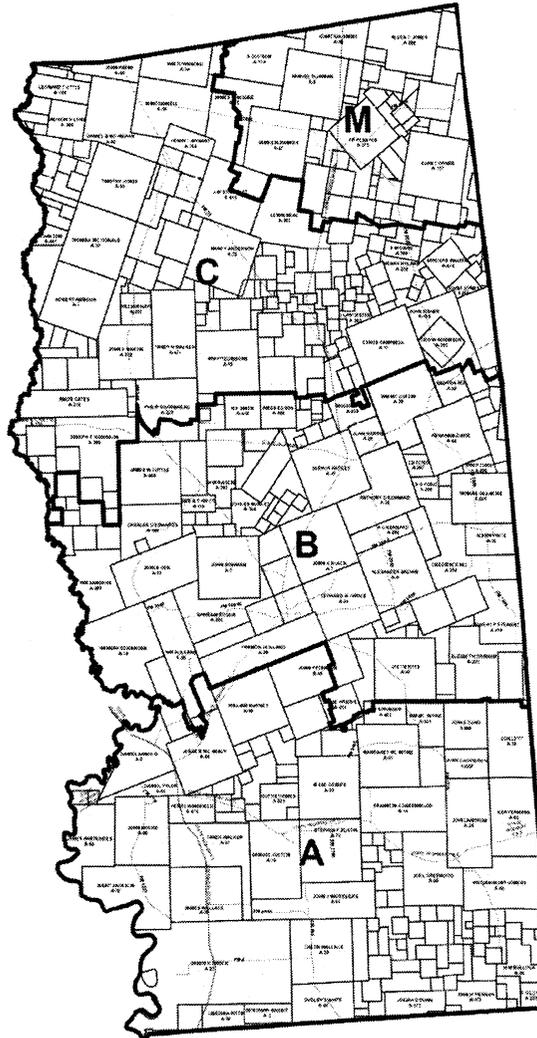
\*\*\* All of the Townsite of Roans Prairie is to be included in Zone # 6.

**MARKET AREAS AND MARKET AREA FACTORS FOR 2015-2016 REAPPRAISAL PLAN\***

<b>Code</b>	<b>Description</b>	<b>Location</b>	<b>Use Type</b>	<b>Physical Characteristics</b>	<b>Price Range</b>	<b>Land Size</b>
Land A	Rural Acreage South	X		X	X	X
Land B	Rural Acreage Mid	X		X	X	X
Land C	Rural Acreage North	X		X	X	X
Land M	Rural Acreage MICSD	X		X	X	X

**\*This a preliminary list of market areas or “neighborhoods” that are anticipated to be used for the 2015 and 2016 tax year. During implementation of this plan, new market areas may be identified and existing ones may be modified or eliminated based on changing market patterns and other information that becomes available.**

GRIMES COUNTY MARKET AREAS FOR TAX YEARS 2015 & 2016



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**CALENDAR OF KEY EVENTS FOR 2015 TAX YEAR\***

<b>KEY EVENTS</b>	<b>PROJECTED STARTING DATE</b>	<b>PROJECTED COMPLETION DATE</b>
Increment Tax Year from 2014 to 2015	July 20, 2014	August 15, 2014
Conduct 2014 Supplemental Processing	August 1, 2014	July 30, 2015
Conduct 2015 Data Entry	August 1, 2014	July 30, 2015
Resume and continue data collection-verification-analysis	August 1, 2014	July 30, 2015
Resume and continue ratio studies	August 15, 2014	July 30, 2015
Resume and continue ownership and property updates (splits/comb/new/other)	August 1, 2014	July 30, 2015
Resume and continue mapping updates	August 1, 2014	July 30, 2015
Conduct real property inspections	September 15, 2014	May 15, 2015
Conduct property inspections for critical January 1st properties	December 1, 2014	January 31, 2015
Perform January 1 data processing functions	December 1, 2014	January 31, 2015
Process exemption applications and special use valuation applications	January 15, 2015	April 30, 2015
Process business personal property renditions	February 15, 2015	April 30, 2015
Review, analyze and define market areas	April 1, 2015	April 30, 2015
Conduct pre-notice ratio studies	March 1, 2015	May 15, 2015
Review, adjust and test models	April 15, 2015	May 15, 2015
Receive and process oil and gas values	May 1, 2015	May 15, 2015
Receive and process industrial and utility values	May 15, 2015	June 15, 2015
Submit preliminary estimates of taxable value to taxing units	April 15, 2015	April 30, 2015
Conduct Informal hearings	May 1, 2015	July 31, 2015
Conduct Formal Hearings	June 20, 2015	July 31, 2015
ARB Approves 2015 Appraisal Records	July 10, 2015	July 31, 2015
Chief Appraiser Certifies 2015 Value to Taxing Units	July 11, 2015	August 3, 2015

**\*Projected starting dates and completion dates are subject to change due to weather, staff availability, and other contingencies.**

**CALENDAR OF KEY EVENTS FOR 2016 TAX YEAR\***

<b>KEY EVENTS</b>	<b>PROJECTED STARTING DATE</b>	<b>PROJECTED COMPLETION DATE</b>
Increment Tax Year from 2015 to 2016	July 20 1,2015	August 15, 2015
Conduct 2015 Supplemental Processing	August 1, 2015	July 30, 2016
Conduct 2016 Data Entry	August 1, 2015	July 30, 2016
Resume and continue data collection-verification-analysis	August 1, 2015	July 30, 2016
Resume and continue ratio studies	August 15, 2015	July 30, 2016
Resume and continue ownership and property updates (splits/comb/new/other)	August 1, 2015	July 30, 2016
Resume and continue mapping updates	August 1, 2015	July 30, 2016
Conduct real property inspections	September 15, 2015	May 15, 2016
Conduct property inspections for critical January 1st properties	December 1, 2015	January 31, 2016
Perform January 1 data processing functions	December 1, 2015	January 31, 2016
Process exemption applications and special use valuation applications	January 15, 2016	April 30, 2016
Process business personal property renditions	February 15, 2016	April 30, 2016
Review, analyze and define market areas	April 1, 2016	April 30, 2016
Conduct pre-notice ratio studies	March 1, 2016	May 15, 2016
Review, adjust and test models	March 1,2016	May 15, 2016
Receive and process oil and gas values	April 15, 2016	May 15, 2016
Receive and process industrial and utility values	May 15, 2015	June 15,2016
Submit preliminary estimates of taxable value to taxing units	April 15, 2016	April 30, 2016
Conduct Informal hearings	May 1, 2016	July 31, 2016
Conduct Formal Hearings	June 20, 2016	July 31, 2016
ARB Approves 2016 Appraisal Records	July 10, 2016	July 31, 2016
Chief Appraiser Certifies 2016 Value to Taxing Units	July 11, 2016	August 3, 2016

**\*Projected starting dates and completion dates are subject to change due to weather, staff availability, and other contingencies.**

**RESOLUTION TO APPROVE BIENNIAL PLAN FOR THE PERIODIC  
REAPPRAISAL OF ALL PROPERTY WITHIN THE GRIMES COUNTY  
APPRAISAL DISTRICT FOR TAX YEARS 2015 AND 2016**

Whereas Sec. 6.05 (i) Texas Property Tax Code requires the Board of Directors of the Grimes County Appraisal District to (1) develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the appraisal district (2) to hold a public hearing to consider the proposed plan (3) to deliver notice to the presiding officer of the governing body of each taxing unit participating in the appraisal district of the time, date and place of the hearing (4) to publish notice of the hearing and (5) to complete its hearings, make any changes, and by resolution approve the plan no later than September 15<sup>th</sup> of each even numbered year, and

Whereas the Board of Directors of the Grimes County Appraisal District has to (1) developed biennially a written plan for the periodic reappraisal of all property within the boundaries of the appraisal district (2) held a public hearing to consider the proposed plan (3) delivered notice to the presiding officer of the governing body of each taxing unit participating in the appraisal district of the time, date and place of the hearing (4) published notice of the hearing and (5) completed its hearings and made any changes; therefore,

Be it resolved by the Board of Directors of the Grimes County Appraisal District:

That the biennial written plan for the periodic reappraisal of all property within the boundaries of the Grimes County Appraisal District for tax years 2015 and 2016 attached hereto is hereby approved.

Approved this the 9<sup>th</sup> day of September 2014.



Chairman  
Board of Directors

ATTEST:



Secretary  
Board of Directors