



July 18, 2024

Cherokee County Reappraisal Plan 2025-2026

Statutory compliance with §6.05(i) Texas Property Tax Code

2025-2026

REAPPRAISAL PLAN

CHEROKEE CENTRAL APPRAISAL DISTRICT
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2024 - 2025

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SECTION I

INTRODUCTION

Introduction

The Cherokee Central Appraisal District (CCAD) has prepared this Plan in compliance with Sections 6.05 and 25.18 of the Texas Property Tax Code (TPTC). The Plan is developed with the intent to inform and educate the public and taxing authorities as to when and how the District conducts reappraisal operations. It is the intent of this document to illustrate not only when we will be in your area, but also to explain the methods we use in performing appraisals. **This Plan has been adopted by the CCAD Board of Directors following input from a public hearing on July 18, 2024.** While the Board has no input on valuation issues, the Texas Legislature mandated approval of this Plan by the Board. While we realize that this mandate appears to blur the lines of political influence on values, you should be aware that valuation issues are the strict responsibility of the Chief Appraiser. The Board of Directors, taxing unit governing bodies nor the Texas Legislature have any legal authority or input over valuation efforts.

Historical Background

The appraisal district concept was created by Legislative mandate in 1979 to address inequities in the ad valorem tax process. The appraisal district is supposed to provide neutral ground between taxing authorities and property owners. The Legislature set districts up in a manner that insulates the chief appraiser from outside political influences, whether those influences be from voters or from jurisdictions. In this manner, the mandate of appraisal districts can be carried out in a fair and uniform way.

Appraisal district operations and valuations are the responsibility of the Chief Appraiser who is appointed by the Board of Directors. Directors are elected to serve by the various taxing jurisdictions that participate in the CAD. The Board has the following duties:

1. Establish an office
2. Adopt annual budgets
3. Contract for services
4. Hire a chief appraiser
5. Provide advice and consent for agriculture advisory board members
6. Make general policy for CAD operations
7. Develop and approve a biennial reappraisal plan

More information on Board responsibilities may be found in the Comptroller's *Appraisal District Director's Manual*.

Appraisal Districts are charged with the equal and uniform appraisal of all taxable property in the State as of January 1st of each year. By statute, all property is taxable per Section 23.01(a) TPTC unless specifically exempted from taxation. In general, governmental property and personal property not generating income are exempt from property taxation. Appraisals are mandated to be at market value as of January 1st. The TPTC defines market value in Section 1.04(7) as:

"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.

All property is inspected and valued with the goal of obtaining market value. However, there are also other provisions of the TPTC that allow for "special use" appraisals. These most commonly are lands in some type of agricultural production. Additionally, the Texas Constitution along with the TPTC allow for several partial and complete exemptions that are offered in certain cases such as charitable organizations, homesteads and disabled veterans. For more information on these types of exemptions you can contact CCAD or the Texas State Comptrollers Property Tax Assistance Division's Technical Assistance Department at 800-252-9121. Information can also be found in the Taxpayer Rights and Remedies brochure at the CAD or in Chapter 11 of the TPTC. Brochures on these and other topics drafted by CCAD are also available at our office.

This Plan report is segmented into several primary categories by type of property. Within each section we will provide detail concerning the when, why and how relating to appraisal and reappraisal activities performed by CCAD. Please remember that you can always contact us Monday through Friday during regular business hours if you have any questions, comments or concerns.

SECTION II

REAL ESTATE PROPERTY

Reappraisal Activities

General Discussion

When CCAD conducts a reappraisal sweep, we do this in three distinctly different ways. First, we have field appraisers that do come out and visit each property. Often times we have property owners that say we have never been to their place. In reality however, we are performing inspections during business hours when most people are at work themselves.

We try to schedule our mass reappraisal activities in a way that provides for roughly one third of properties to be inspected each year. How do we perform the field work? Our entire appraisal staff is dispatched to various reappraisal areas. In most cases, appraisers will work in teams of two. We knock on doors to announce our presence. Our inspection will consist of a complete ‘walk around’ of structures, when physically possible, looking for physical conditions that impact depreciation and quality classification. The ‘walk around’ also allows us to check our measurement data and amenity make-up of the property. Amenities are open decks, pools, storage buildings and porches for example. We also take a digital photograph of the property. **YOU SHOULD BE AWARE THAT AT NO TIME WILL A CCAD APPRAISER ASK TO ENTER A STRUCTURE.** We conduct all inspections from the exterior. Also, pursuant to state law, photographs and drawings of residential properties are prohibited from being posted on the internet. In addition to standard inspection sweeps, appraisers may also inspect specific properties upon request of the property owner, appraisal staff or tax collection authorities. In these cases, the inspection is typically the same.

Second, under certain circumstances, appraisal staff may reappraise large areas of the county from recent aerial photography. Beginning in 2023, CCAD will implement new procedures for aerial inspection. Every two years CCAD will engage a company to fly the entire county taking 3” resolution aerial photography of the Jacksonville and Rusk municipal areas, as well as 6” resolution aerial photography in the remainder of the county. Utilizing that company’s computer software, aerial imagery from each flight will be digitally compared to notify appraisers of new structures and structures that have changed since the previous flight. This will assist CCAD in picking up new structures or additions in the county. The software application also allows appraisers to measure and inspect all sides of structures. While this will not preclude a site inspection, it will allow our appraisers to perform more work using less resources. For the majority of acreage in the county, aerial inspections will also allow faster inspections for vacant land tracts.

Third, CCAD also performs reappraisals by statistical analysis on an annual basis. This means that we are looking at prices of sold property and comparing that data against our appraisal models to see how we need to adjust our appraisals. In this manner, technically speaking, each property under our jurisdictional area of responsibility is reappraised each and every year. A more detailed explanation of our modeling efforts will be discussed later in this document.

Resources

To accomplish the goal of re-inspection, we anticipate a staff of 15.5 full time employees working toward the mandates set out by the TPTC and goals set by CCAD management. The one half of one employee is a position that works six months of the year in our appraisal division and six months in our tax collection division. The following describes our staffing resources by department:

<u>Department</u>	<u># Fulltime Employees</u>
Support	6.5
Appraisal	5
Executive	4

By Statute, each appraiser must be certified or be in the process of being certified by the Texas Department of Licensing and Regulation (TDLR) in order to hold a license for ad valorem appraisal. The final designation for appraisers by the TDLR is that of Registered Professional Appraiser (RPA). This designation is legal for only ad valorem appraisal work and may not be used for independent appraisals.

To obtain and hold a license, each appraiser is required to complete the education courses set out by the TDLR and the State Comptroller's Office. At the time of this printing, these courses culminate in two State administered license exams; a four hour Level III Exam and an eight hour Level IV Exam. Successful completion of these courses and exams are mandatory for employment. Five years of appraisal experience is required prior to being issued a RPA license. Once the RPA designation has been obtained, appraisers are required to have 30 hours of continuing education (CE) every two years, as well as, complete mandatory USPAP and ethics courses in that same time period. The current licensing status of staff appraisers as of the date of this report is as follows:

<u>Position</u>	<u>TDLR Ranking</u>
Chief Appraiser	RPA, RTA
Deputy Chief/Ag Appraiser	RPA
Deputy Chief/Income Appraiser	RPA
Real Estate/BPP Appraiser	RPA
Real Estate/Commercial Cost Appraiser	RPA
Field Appraiser	RPA
Field Appraiser	Class II
Field Appraiser	Class II

In addition to appraisal staff, in order to complete a reappraisal, we must have sufficient 'in-office' resources. One of those resources is the task of budgeting adequate funds to accommodate this effort. Additionally, we need an adequate system to retain and utilize data collected in the field. To this end, we currently employ computer assessment and mass appraisal (CAMA) software provided by Harris Computer Systems from Ottawa, Ontario. In order to locate and identify property, we continue to maintain aerial photography from EagleView, as well as, utilizing open-source services like Google Earth. Supplementing this are county block maps that are maintained by our Support Department and are constantly updated with current deed information and parcel boundaries provided to us by the Cherokee County Clerk's Office. Finally, transportation to and from the field

is the responsibility of each appraiser. Appraisers use their own vehicles for field work and are compensated for that use with a set monthly allowance.

Schedule of Work

Field activity takes place in the fall, winter and early spring of each year. Because our work encompasses two calendar years at a time, actual field inspections for a tax year begin in the fall of the year prior and run into early spring of the year in question. In this manner we intend to complete mass reappraisal field inspections of real estate by the following time table:

<u>Cycle</u>	<u>Activity</u>
2024-2025	Jacksonville ISD – Complete area sweep Countywide Upkeep; Productive Inspections, BPP Inspections (Real & Personal Property); Model Calibration and Ag Inspections
2025-2026	Rusk ISD – Complete area sweep Countywide Upkeep; Productive Inspections, BPP Inspections (Real & Personal Property); Model Calibration and Ag Inspections

This schedule of inspection is adopted by the Board of Directors with the Reappraisal Plan. However, the Plan and the Board do provide that the Chief Appraiser may alter this schedule of work if deemed necessary due to shortages in qualified staffing, requirements indicated by annual statistical analysis or other exigencies that require a different priority of inspection according to USPAP and IAAO standards. The Chief Appraiser shall notify the Board of such divergences at the earliest possible time.

Appraisal management will determine the actual starting locations of each area and the sequential manner of work flow within each area. Appraisers will use the resources and capabilities of various computerized applications to obtain property record cards and map data necessary for field inspections. They will also coordinate the after-inspection workflow by entering data changes to the CAMA system and archiving all relevant documents whether in electronic or paper form. All field activity is specifically directed by the Department Supervisor and monitored by the Deputy Chief Appraiser. Specific data accumulation goals are set each year by appraisal management after reviewing the needs of the statistical model and CAMA capabilities.

As mentioned earlier, appraisal staff will also make individual inspections during this time at the request of property owners, tax collectors or appraisal management. Additionally, they will inspect property as a result of mechanic liens, building permits or special use applications.

In terms of statistical modeling, as pointed out earlier, we will continue to examine all properties on an annual basis to ascertain the necessary adjustments to maintain market value. This is accomplished using various software applications such as Microsoft Excel and Access, SQL Query Analyzer and the Property Appraisal/Collection Software (PACS) provided by Harris Govern. Statistical modeling is primarily performed by the Chief Appraiser with assistance from the Deputy Chief and Appraisal Engineer.

Data Collection and Types

Types of Data

The primary foundation of mass appraisal is comprised of the type and quality of data that is accumulated and studied. Without the proper types of data, we would not be able to produce the mandated appraisals. We collect data that helps us categorize each property by type, location, quality and condition. A good resource for understanding this process is the video entitled “*Property Valuation Basics*.” That video may be found on CCAD’s YouTube channel.

The starting point for our data comes from ownership deeds and baseline map data of roadways, easements and various jurisdictional boundaries. Each deed describes a particular piece of property in terms of ownership, location, property line boundaries and size of the property. The deed also provides us with the mailing address of relevant parties. **If your address is different from the address shown on your deed, it is your responsibility to contact the CAD in writing to update your information.** Otherwise, the deed address is the only address available to us for delivery of statutory notices and tax statements. Ownership and boundary information is distilled into three primary sources; County Block Maps, the digital Geographic Information System (GIS) and the PACS CAMA software which provide the basis for your tax account.

Once these records have been created with ownership and boundary information, it is the job of the appraisal department to assist in determining values for land and structures. There are several factors that are accumulated for each different category of real estate. The following is a partial list of collected data.

Location is as important to the appraisal process as the old real estate adage of “location, location, location”. We use data about the location of each property to determine how best to group together properties into homogenous neighborhoods. The most prevalent type of location grouping is defined by school district boundary for non-municipal property or city limit lines for municipal property. Further neighborhood dissection is based upon subdivision boundary or appraiser determined boundary by street and city block.

Unit Size of Land is derived from our maps. Depending on the location, use and category of property, the unit of measure will vary from acreage, square footage, front footage or by whole lot pricing.

Unit Size of a Structure most typically is square footage based upon exterior measurements. There are instances however when cubic measurements may be employed when dealing with warehouse or silo storage space.

Quality of a Structure will be examined by observation of architecture, building materials and quality of workmanship in the construction. Quality is not affected by age or condition. Typically, CCAD uses the categories of Poor, Fair, Average, Good, Very Good and Excellent in its breakdown of residential structure quality. Commercial structures are divided into Fair, Average and Good categories.

Type of Structure relates to the type of construction used in the load bearing walls. Residential structures are divided into Frame for stud wall, frame exterior siding construction and Brick Veneer for stud wall, brick exterior siding. Currently, CCAD groups steel stud walls and log houses with the Frame category and pure masonry walls with the Brick Veneer category. Commercial structures are grouped into three categories, steel, frame and masonry.

Type of Amenities for a structure has to do with the additives that are a part of the structure but not part of the heated and cooled living area. These would be items such as porches, pools, fireplaces, decks, garages, etc.

Features are related to structural components like pier and beam or floating slab concrete foundations, hip or gable roof structures, asphalt or metal roof covering, etc.

Sales information for real estate properties is gathered by letters sent to both buyer and seller by our Deeds/Mapping Department after processing a deed. CCAD also acquires data from real estate professionals, multiple listing services, fee appraisals and the Comptroller's Property Tax Assistance Division (PTAD).

Some data types are relevant to only land:

Pricing size is a function of land area and applies to the aggregate size of individual contiguous parcels. Two smaller tracts, owned by the same owner that touch one another will be treated as one tract for valuation purposes. In this manner, a five acre tract and a ten acre tract will be priced as a fifteen acre tract even though each has its own account. The term commonly used for pricing size is 'pricing acreage' or 'pricing square footage'. This principle can also be applied to lots valued based on front footage.

Type of Access is a key location subcomponent of rural land valuation. Parcels may be located in the same area or neighborhood but have significantly different methods of physical access. One may be on the highway and one may be at the end of a dirt road. For these properties, CCAD segregates parcels by landlocked, highway, paved, or dirt road access.

Legal Features of properties are not a direct component of the mass modeling process at this time. These features would be zoning requirements, deed restrictions etc. Typically, these factors may be considered to some extent by classification (landlocked land for instance) within the model. For all other issues, appraisers make individual adjustments on a case by case basis.

Productive Land Features vary from open space pasture or cropland to different features for timberland. These features will be discussed further in the section on timber modeling. Wildlife management specifications are also used for properties that qualify for this type of special use appraisal.

Collection and Retention

Appraisers are trained to collect the necessary data used to build an accurate real estate file and appraisal model. The collection of data usually occurs in the field during inspection but can also take place during formal or informal meetings with property owners. Data is noted on the property record card and digital photographs are taken. Appraisers download and attach photographs to applicable accounts using the CAMA software and update any changes to the computer file. Primary data entry is performed by the appraisal staff with additional data entry by the Support Department if needed. After the noted changes are entered, the property record card is scanned into the CAMA system for that specific parcel.

The information loaded into the CAMA system is readily available to appraisers via printed PRC or by computer access. Each evening, the CAMA database is updated to our website at www.cherokeecad.com.

Markets and Models

General Discussion

Market areas allow for properties in different economic areas to be grouped into homogenous cross sections. **A list of general market areas and associated model codes may be found in Appendix L of this publication.** Models are computerized mathematical equations that allow the CAD to value thousands of properties *en masse* each year. Using these methods, high value areas are not linked to lower value areas in the model. In its basic form, the formula for the market valuation model is as follows:

$$MV = LV + (RCN - AD)$$

Where MV = Market Value; LV = Land Value; RCN = Reconstruction Cost New;
AD = Accumulated Depreciation from all sources of depreciation or obsolescence.

Because market areas and modeling structures are modestly different for each category of real estate, we will divide this discussion into sections for residential structures and land (which includes rural land), commercial structures and land, and then a brief section on the productive model for timber.

Highest and Best Use Analysis

For each category of real estate we will discuss, the highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of appraisal. The highest and best use must be physically possible, legally permissible, financially feasible, and be a use that produces the most profit. The highest and best use of residential property is normally its current use. This is due in part to the fact that residential development, in many areas, through use of deed restrictions and zoning, precludes other land uses. Residential Valuation can be subject to reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. In transition areas, the appraiser must determine the most typical use for property each year by examining the use of recently sold property in that area. Similarly, in mixed areas, the appraiser looks for boundaries created by zoning or recent market sales to determine the highest and best use for that area. **However, in 2009, the voters of Texas authorized a Constitutional**

Amendment that requires *homesteaded* residential property to be appraised based upon residential highest and best use regardless of actual highest and best use.

Residential and Rural Land:

Neighborhood and Market Analysis

The identification of residential neighborhoods can be divided into two categories for Cherokee County: municipal neighborhoods and rural neighborhoods. In each case, the appraiser attempts to localize neighborhoods by geographic boundaries. The determination of what makes a neighborhood comes from physical inspection and market data.

In determining municipal neighborhoods, the appraiser looks for areas of homogenous property. During this examination, physical factors such as maintenance and upkeep of homes and vacant tracts are considered. Conversely, rural neighborhoods are determined in large part on the examination of sales prices as compared with other areas within a geo-political boundary. For example, a particular area in a rural setting may exhibit higher sales prices for improved and vacant property as compared to other areas within a school district that have a similar composition of property types. Municipal neighborhoods are classified with Low, Fair, Average and Good codes while rural neighborhoods are classified with alphanumeric identifiers.

Micro-neighborhoods are also a part of the municipal neighborhood model. Within any particular neighborhood there can exist areas where the market is recognizing a discount or premium as compared with similar areas within the same neighborhood. In these instances, the appraiser still maintains the Low, Fair, Average or Good neighborhood classification but also adds a second identifier for the micro-area. Micro-neighborhoods are defined in large part by plotting sales data geographically and using the plotted geographical points to identify these areas. In each instance, the second identifier contains a percentage adjustment. This adjustment modifies the properties as a discount or premium off of the base schedule value. The adjustment may be applied to land only or improvements only or it may be applied to both.

Description of Residential Improvement Model – Quality Classification

Modeling techniques used by the Cherokee Central Appraisal District allow for specific adjustment to each category of property in the county. To begin, each site built improved residence is classified based upon type of exterior siding. Properties with brick-veneer, stone-veneer or masonry block are classified as type “M” property. Properties with wood, vinyl, fiber cement board, aluminum, log or other non-masonry sidings are classified as type “F” property. Currently, metal sided structures are also classified as type “F”. There are also properties with mixed siding composition. For example, a home may only have a brick veneer front with vinyl siding on the remainder of the house. In this case, the appraiser must make a determination of the predominate siding when classifying the property.

Each type of property as described above is further assigned a numeric code that corresponds to the quality of construction of the improvement. Coding for quality is defined by the following table:

<u>Quality Code</u>	<u>Description of Quality</u>
1	Substandard
2	Low
3	Fair
4	Average
5	Good
6	Very Good
7	Excellent

Further, the model provides for ‘half’ classes for each breakdown denoted as “+”. The ‘half’ classification is used when an appraiser determines that a particular property is somewhat better quality than a specified classification but not quite the quality of the next higher classification. For example, an improvement may be better than fair but not quite average in quality. In this instance, the appraiser would assign a Fair + or “3+” code. These numeric codes are appended to the “F” or “M” code. For example, a brick veneer, good-plus quality home would have a code of “M5+”.

Description of Residential Improvement Model – Location Classification

Following the description of siding type and quality, each code is further delineated by a neighborhood location code. These codes differ for municipal, rural subdivision, lake property and rural properties. The District is planning on moving to new schedules in the Jacksonville ISD area of the county in 2025 and Rusk ISD, Alto ISD, and Wells ISD in 2026. The District will continue using the current schedules until all areas are changed to the new matrixes.

Municipal property: The alpha initial of the city is first used followed by the alpha code for the type of neighborhood. For example, an average neighborhood in the City of Jacksonville would be “JA”. This also denotes a municipal improvement on a lot less than one acre. For municipal improvements on lots over one acre, an additional “A” for acreage is added to the coding. For example, an average neighborhood in the City of Jacksonville would be “JAA”. This additional acreage delineation only applies to municipal schedules. The city codes are as follows:

<u>Code</u>	<u>City Description</u>
A	Alto
B	Bullard
J	Jacksonville
R	Rusk
T	Troup
W	Wells

Quality codes follow a predictive pattern as follows:

<u>Code</u>	<u>Quality Description</u>
L	Low
F	Fair
A	Average
G	Good

Lake property: The location for lake front or lake area properties are typically identified by an “L” and a numeric code corresponding to the particular lake as set out below:

<u>Code</u>	<u>Lake Description</u>
L1	Lake Jacksonville
L2	Lake Striker
L3	Lake Palestine
L6	Club Lake
L8	Pinecrest Lake

There are some instances in the Bullard market area on Lake Palestine where the location identifier is different than “L3”. Many lake properties in that area have a location code that identifies the lake subdivision by name or abbreviated name.

Finally, there are some lake areas that are not contiguous to the waterfront but are considered either water view or “off-water” areas. These are areas that are influenced by their proximity to the lake. Water View will be abbreviated as “WV” with the corresponding “L” code shown above. In like manner, “off-water” properties will be abbreviated “OW” with the corresponding “L” code shown above.

Rural subdivisions: These are platted subdivisions that are not in a municipality. They are identified by the alpha code for the school district followed by an “RS” for rural subdivision then an alpha indicator for Low, Fair, Average or Good neighborhood. In this scheme, a fair quality rural subdivision in Wells ISD would be “WRSF” for Wells Rural Subdivision Fair.

<u>Code</u>	<u>Subdivision Description</u>
A	Alto ISD
B	Bullard ISD
C	Carlisle ISD
J	Jacksonville ISD
R	Rusk ISD
N	New Summerfield ISD
T	Troup ISD
W	Wells ISD

Quality codes follow a predictive pattern as follows:

<u>Code</u>	<u>Quality Description</u>
L	Low
F	Fair
A	Average
G	Good

Rural property: All other rural properties that are not platted subdivisions are classified based upon the type of road access as set out in this table:

<u>Access Code</u>	<u>Access Description</u>
H	State Highway
P	Paved County Road or F.M.
D	Dirt Road
L	Land Locked

Following the Access Code is the numeric indicator for the school district:

<u>School Code</u>	<u>School</u>
08	Wells
21	Alto
23	Bullard
15	Rusk
42	New Summerfield
46	Jacksonville
62	Carlisle
81	Troup

Therefore, a rural improvement in Alto ISD on a dirt road would have a code of “D21”. There is one exception to this rule in Jacksonville ISD. There is a particular code for certain properties that are not in the city limits of Jacksonville but immediately adjacent to the city. This is a type of buffer zone between municipal and rural. This area has a numerical code of “76”.

These location codes are appended to the type and quality code and separated by a dash “-“. The following table contains some examples of residential coding:

<u>Code</u>	<u>Description</u>
F5-RG	Good Quality Frame Exterior Residence in a Good Neighborhood in the City of Rusk
M3+-JFA	Fair Plus Quality Brick Veneer Exterior Residence in a Fair Neighborhood in the City of Jacksonville on more than one acre
F4-ARSA	Average Quality Frame Exterior Residence in an Average Rural Subdivision in Alto ISD
M4-P46	Average Quality Brick Veneer Exterior Residence on a Paved Road in Rural Jacksonville ISD
F3-L1	Fair Quality Frame Exterior Residence on Lake Jacksonville

Each combination is tied to a specific table of value for that code. These tables are referred to by the Cherokee Central Appraisal District as “improvement schedules”. Each schedule contains a value per square foot of living area for individual stratum of square footage. In this manner, the

district is able to modify only schedules for a select group of properties if desired. The down side to this approach is that the district must track and maintain several hundred different schedules.

In addition to the base residential schedules, there are also separate schedules for features and amenities for residential property. These would include items such as porches, decks, attached and detached garages or carports, fireplaces or central heat/air. In most of these cases, the schedule calls for a 'percentage of base' approach to value. For example, a porch would be calculated as 20% of the base schedule square footage price. So if a 1,200 square foot F3-D15 called for \$87.14, porches for that improvement would be based on 20% of \$87.14 or \$17.43 per square foot before depreciation. A table of these codes are as follows:

<u>Amenity Code</u>	<u>Description</u>	<u>% of Base (as %)</u>
1.5	1 1/2 Story	84
2	2nd Story	90
3	3rd Story	90
4	4th Story	84
ADD	Addition	95
AGF	Attached Finished Garage	31
AGU	Attached Unfinished Garage	25
BAS	Basement - General	60
BAS_A	Basement - Average	40
BAS_G	Basement - Good	50
CP	Car Port - Attached	15
DCP	Detached Car Port	22
DGF	Detached Finished Garage	38
DGU	Detached Unfinished Garage	32
FNS	Finished Storage	40
GH	Green House	30
GP	Glass Porch	31
OD	Open Deck	20
OP	Open Porch	23
OS	Open Slab	6
PC	Covered Patio	23
SH	Shed	15
SP	Screened Porch	26
UNS	Unfinished Storage	30

There are a couple of exceptions however to amenities that use a percent of base value for pricing. Fireplaces, central heat/air and swimming pools all call for flat pricing. Fireplaces and pools are set at a certain total dollar amount, while central heat/air is set at a price per square foot of living area. In the case of fireplaces and central heat/air, each quality class will have its own fireplace and central heat/air value table.

<u>Amenity Code</u>	<u>Description</u>
FP_2	Fireplace Low Quality Res
FP_3	Fireplace Fair Quality Res
FP_4	Fireplace Average Quality Res
FP_5	Fireplace Good Quality Res
FP_6	Fireplace Very Good Quality Res
FP_7	Fireplace Excellent Quality Res
CHA_2	Central Heat/Air Low Quality Res
CHA_3	Central Heat/Air Fair Quality Res
CHA_4	Central Heat/Air Average Quality Res
CHA_5	Central Heat/Air Good Quality Res
CHA_6	Central Heat/Air Very Good Quality Res
CHA_7	Central Heat/Air Excellent Quality Res
SWP	Swimming Pool

Description of Residential and Rural Land Models

Land modeling for the District’s residential areas can be divided into categories similar to the neighborhood description just discussed. Land is coded for municipal, rural subdivision, lake lots and for rural land in general. Land is valued primarily based upon acreage or square footage of the lot or tract. However, there are cases in the model where front footage or flat value per lot is utilized.

Municipal property: The alpha initial of the city is first used followed by the alpha code for the type of neighborhood. For example, an average neighborhood in the City of Jacksonville would be “JA”. This also denotes a municipal improvement on a lot less than one acre. For municipal improvements on lots over one acre, an additional “A” for acreage is added to the coding. For example, an average neighborhood in the City of Jacksonville would be “JAA”. This additional acreage delineation only applies to municipal schedules. The city codes are as follows:

<u>Code</u>	<u>City Description</u>
A	Alto
B	Bullard
J	Jacksonville
R	Rusk
T	Troup
W	Wells

Quality codes follow a predictive pattern as follows:

<u>Code</u>	<u>Quality Description</u>
L	Low

F	Fair
A	Average
G	Good

Rural subdivisions: These are platted subdivisions that are not in a municipality. They are identified by the alpha code for the school district followed by an “RS” for rural subdivision then an alpha indicator for Low, Fair, Average or Good neighborhood. In this scheme, a fair quality rural subdivision in Wells ISD would be “WRSF” for Wells Rural Subdivision Fair.

<u>Code</u>	<u>Subdivision Description</u>
A	Alto ISD
B	Bullard ISD
C	Carlisle ISD
J	Jacksonville ISD
R	Rusk ISD
N	New Summerfield ISD
T	Troup ISD
W	Wells ISD

Quality codes follow a predictive pattern as follows:

<u>Code</u>	<u>Quality Description</u>
L	Low
F	Fair
A	Average
G	Good

It is important to also note that appraisers may exercise professional judgment when classifying land in rural subdivisions. If the appraiser determines that property is more marketable as rural land than platted subdivided land the appraiser may use the non-subdivision rural land codes. This exception exists because the legal requirements to plat subdivisions often result in one or two lot subdivisions. In many cases, these are never marketed as a dedicated subdivision and have more in common with vacant rural land tracts.

Lake property: The location for lake front or lake area properties are typically identified by an “L” and a numeric code corresponding to the particular lake as set out below:

<u>Code</u>	<u>Lake Description</u>
L1	Lake Jacksonville
L2	Lake Striker
L3	Lake Palestine
L6	Club Lake
L8	Pinecrest Lake

There are some instances in the Bullard market area on Lake Palestine where the location identifier is different than “L3”. Many lake properties in that area have a location code that identifies the lake subdivision by name or abbreviated name. A list of these follows:

Land Code	Description		Land Code	Description
CH COVE BL	Cherokee Cove SD Back Lots		MEADOW VIE	Meadow View SD
CH COVE WF	Cherokee Cove SD Waterfront Lots		MU-1	Mulilo SD
CH CREK WF	Chimney Creek SD Waterfront Lots		OPALA W F	Opala SD Waterfront
CUM RDG 1	Cumberland Ridge SD Sect 1		PETTY 1	Petty Estates SD Sect 1
CUM RDG 2	Cumberland Ridge SD Sect 2		PETTY 2	Petty Estates SD Sect 2
DAVIS W F	Davis SD Waterfront Lots		PETTY 3	Petty Estates SD Sect 3
E DALE 1	Eastdale SD Sect 1		PETTY W F	Petty Estates SD Waterfront
E DALE 2	Eastdale SD Sect 2		S BRK WF 1	Shadybrook SD Waterfront 1
E DALE WF - F	Eastdale SD Waterfront - Fair		S BRK WF 3	Shadybrook SD Waterfront 3
E DALE WF - G	Eastdale SD Waterfront - Good		S BROOK 5	Shadybrook SD Sect 5
EASTER SHO	Easter Shore SD		S BROOK 1	Shadybrook SD Sect 1
EB-1	Eagles Bluff SD - Section 1		S BROOK 1E	Shadybrook SD Sect 1 East
EB-10	Eagles Bluff SD - Section 10		S BROOK 2	Shadybrook SD Sect 2
EB-11	Eagles Bluff SD - Section 11		S BROOK 3	Shadybrook SD Sect 3
EB-12	Eagles Bluff SD - Section 12		S BROOK 4	Shadybrook SD Sect 4
EB-13	Eagles Bluff SD - Section 13		S BROOK 6	Shadybrook SD Sect 6
EB-17	Eagles Bluff SD - Section 17		S CHIMNY 2	Stone Chimney SD Sect 2
EB-18	Eagles Bluff SD - Section 18		S CHIMNY 3	Stone Chimney SD Sect 3
EB-2	Eagles Bluff SD - Section 2		SD BRK WF2	Shadybrook SD Waterfront 2
EB-3	Eagles Bluff SD - Section 3		ST CHIM FF	Stone Chimney SD Waterfront
EB-4	Eagles Bluff SD - Section 4		SU HILL FF	Sunny Hill SD Waterfront
EB-5	Eagles Bluff SD - Section 5		SUNNY HILL	Sunny Hill SD SQFT
EB-6	Eagles Bluff SD - Section 6		WEAVER EST	Weaver Estates SD
EB-7	Eagles Bluff SD - Section 7		WEAVER FF	Weaver Estates Waterfront
EB-8	Eagles Bluff SD - Section 8		WF_L1A	Waterfront Lake Jacksonville Average
EB-9	Eagles Bluff SD - Section 9		WF_L1F	Waterfront Lake Jacksonville Fair
EB-BH	Eagles Bluff SD – Boat Houses		WF_L1G	Waterfront Lake Jacksonville Good
EB-UNDEV	Eagles Bluff SD - Undeveloped		WF-L2	Waterfront Lake Striker
L3 CHE COV	Cherokee Cove SD SQ lots		WF-L3	Waterfront Lake Palestine
LAK WD 1&2	Lakewood SD Sections 1 & 2		WF-L6	Waterfront Club Lake
LAKEWOOD E	Lakewood East SD		WF-L8	Waterfront Pincrest Lake
LK WOOD FF	Lakewood SD Waterfront		WV_L1A	Water View Lake Jacksonville Average

Finally, there are some lake areas that are not contiguous to the waterfront but are considered either water view or “off-water” areas. These are areas that are influenced by their proximity to the lake. Water View will be abbreviated as “WV” with the corresponding “L” code shown above. In like manner, “off-water” properties will be abbreviated “OW” with the corresponding “L” code shown above.

Rural property: All other rural properties that are not platted subdivisions are classified based upon the type of road access as set out in this table:

<u>Access Code</u>	<u>Access Description</u>
H	State Highway
P	Paved County Road or F.M.
D	Dirt Road
L	Land Locked

Following the Access Code is the numeric indicator for the school district:

<u>School Code</u>	<u>School</u>
08	Wells
21	Alto
23	Bullard
15	Rusk
42	New Summerfield
46	Jacksonville
62	Carlisle
81	Troup

Therefore, a rural improvement in Alto ISD on a dirt road would have a code of “D21”. There is one exception to this rule in Jacksonville ISD. There is a particular code for certain properties that are not in the city limits of Jacksonville but immediately adjacent to the city. This is a type of buffer zone between municipal and rural. This area has a numerical code of “76”.

Final notes: All land is valued based upon the total size of all contiguously controlled tracts of a particular owner. In other words, a person who owns three pieces of property that touch is valued on each individual tract as though it were one tract of the combined size. Consider a person who owns 5 acre, 15 acre and 10 acre tracts. That person would be valued as though all contiguous tracts were combined into one for valuation purposes. In this example, each tract would be valued per acre as though it were one thirty acre tract. This is known as “pricing acres” or “pricing square footage.”

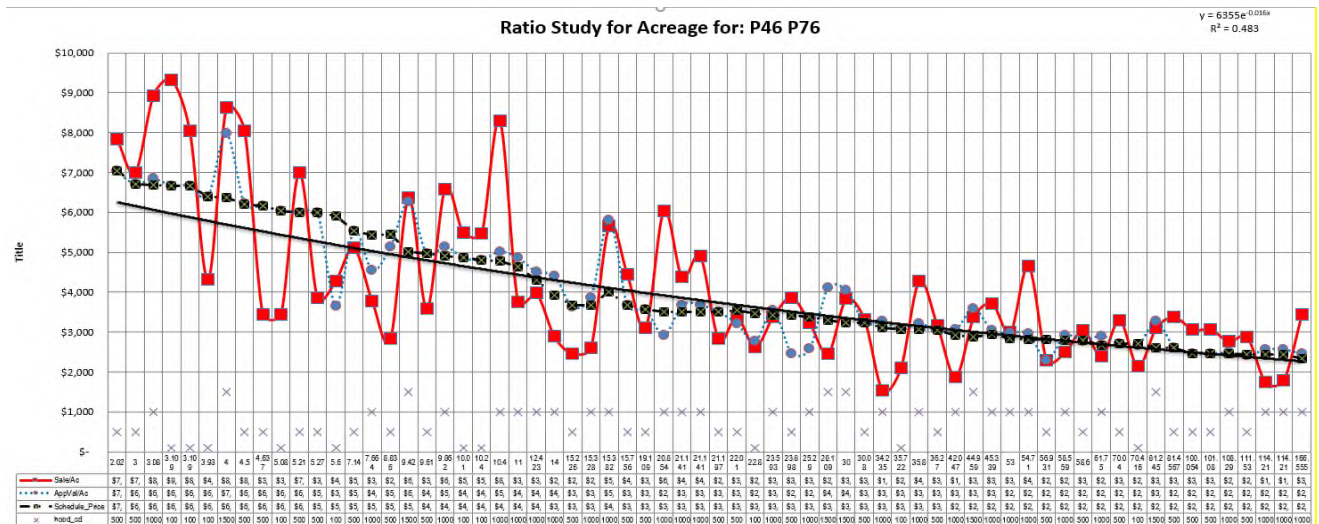
Model Calibration

Each year, the Cherokee Central Appraisal District analyzes sold property as compared to the appraised value of that particular property. The calibration of the model begins here and progresses in two different stages. Land calibration first and followed by improvement calibration.

Land Model Calibration

The first stage in the residential calibration process is to analyze and calibrate all land schedules. This step also sets and calibrates all vacant lots and tracts. Tract and lot sales are obtained through the various means discussed in the section titled “Types of Data”. This information is then analyzed by segregating the various sales into their respective categories identified by the land schedule code for that sold property. For each category that has sufficient sales information, the sales are checked to confirm the total number of acres, square footage, front footage or number of lots involved in

the transaction. The sales price is then divided by the pricing size to arrive at a price per unit. These prices per unit are then arrayed in ascending size and plotted graphically. In this manner, the District has a picture of price per unit plotted against size for a class. In addition to the graph line for sales, the District plots a logarithmic trend line for sales. Over this graph, the District superimposes a graph of appraised value per unit for that particular class as determined by the current class schedule. Using the sales and the sales trend line as compared to the line for the appraisal schedule allows the district to move the appraisal plot in a manner that best fits the sales data. The following is an example of a graphical plot:



Moving the appraisal plot to best fit the sales and sales trend lines will give the district the information needed to adjust the underlying schedule. Calibrating the schedule will result in all properties being revalued for that particular classification of land. In this manner, sold and unsold properties are all reappraised.

Typically, there are never enough sales in each different classification of property to perform the above mentioned process. In these instances, the District will adjust schedules lacking sufficient sales information based upon the adjustments of classifications with sales. For example, if there were sufficient sales to perform an analysis of paved access land in rural Jacksonville ISD (P46) but not enough sales for H46 or D46, the District would use the calibrated P46 schedule as a benchmark and adjust H46 and D46 up or down accordingly. The same is also true of school districts that lack sales activity. Often times, an entire school district market area may have a low volume of sales activity or low volume of reported sales thus prohibiting a valid sales analysis. These school districts will be adjusted based upon the activity of neighboring schools of similar quality. The calibration of schedules or schools with low sales volume based upon similar schedules or schools is referred to by the District as “blending”. When blending schedules or schools, the District recognizes that there exists a certain difference between schedules or areas. For example, the District recognizes that property in Wells ISD is not the same as property in Bullard or Jacksonville ISD’s. Additionally, land locked land is not worth the same as land with highway access. A premium or discount is employed when blending. Consideration is given to the schedules or schools with the most sales volume and further consideration is given as to how other schedules or schools compare to them.

The level of premium or discount is sought from what sales are available in the low volume areas complemented with appraisal experience and judgment.

Once this process is completed for a market area and all relevant schedules calibrated, the CAMA system is recalculated in order to update all relevant parcels with the new appraisal data. Sales ratio reports are again pulled and the sold properties appraised value per unit is double checked against the predicted outcome from the sales plotting discussed above. Attention is also given to the relative change in appraised value for all properties as compared against the percentage change invoked in the calibration process. This allows the District to identify properties or schedules of property that did not change in the manner anticipated by the calibration process. When these tasks are complete, the CAMA system is ready with reappraised land values and therefore ready for the next step which is the calibration of residential improvements.

Improvement Model Calibration

The second stage in the residential calibration process is to analyze and calibrate all improvement schedules. Following the same procedures for data collection and segregation as outlined above, the improvement calibration process analyzes sales ratios by property classification. The sales ratio is found by the following formula:

$$100 * (\text{Appraised Market Value} \div \text{Sales Price}) = \text{Sales Ratio} \%$$

The sales ratio measures the level of appraised market value against a known sales price on a particular parcel of property. Ratios under 100% indicate sold property that is under appraised. Ratios over 100% indicate sold property that is over appraised. The sales ratio is the first step in the analytical process.

Sales ratios are examined by improvement classification. For example, the district will look at all sales ratios for average quality brick veneer homes in an average neighborhood in the City of Rusk (M4-RA). This task is performed for all classifications of sold property. Greater weight is given to those classifications of property that possess adequate numbers of sales for analysis. As this process proceeds, the District will examine those classifications for the influence of several factors such as physical condition, time of sale, size of living area and neighborhood making adjustments as necessary to the analysis. After analyzing and adjusting the sales ratios for these factors, the District calculates a weighted mean ratio for that classification found by the following formula:

$$100 * (\sum \text{Appraised Market Values} \div \sum \text{Sales Prices}) = \text{Weighted Sales Ratio} \%$$

The district also calculates a Coefficient of Dispersion (COD) for that sample by the following formula:

$$100 * (\text{Average Absolute Deviation} \div \text{Median Sales Ratio}) = \text{COD}$$

The average absolute deviation is the mathematical average of the absolute value of the differences between the sales ratio on each parcel as compared to the median ratio for that sample. The COD is used to measure uniformity while the weighted mean ratio is used to measure level of appraisal. The District utilizes these two measurements when analyzing what classifications to use as baseline schedules. Baseline schedules will determine how other schedules that lack adequate sales

information are modified. This is also a blending process as described in the section for land calibration. Blending in the improvement sense will include differing classes of quality, exterior type and neighborhood. The appraiser uses market data and appraisal judgment to apply discount or premium factors to the baseline schedule when adjusting non-baseline schedules.

Performance Testing and Retention

Once all schedules are calibrated and the data entered into the CAMA system, the system is recalculated and sales ratio reports are pulled again for the purpose of seeing how the changes actually affected the system. Modifications to schedule, area or neighborhood factors are examined at this point. Following these adjustments, the District combines all sales ratios for improved property in order to analyze the overall weighted mean ratio and COD. Overall statistics will also be calculated on neighborhood and other market area levels.

The final step in performance analysis is performed by the appraisal staff. Each year following the final phases of calibration, spreadsheets are compiled by school district and sorted based on market percentage and dollar change, appraised value percentage and dollar change, gross market value and by name. The appraisal staff analyzes these spreadsheets to look for any outliers or undesirable trends in the data. Issues are identified, discussed and a remedy is decided upon by appraisal management.

After these items are completed, according to Section 25.19 TPTC, notices are sent to new owners, owners who rendered and who requested a notice and owners with a specified amount of value change from the previous year. It is the responsibility of each property owner to review that notice and notify the CAD of any discrepancies.

Commercial Improvements and Land:

Market Analysis

The identification of market areas typically consists of examining the primary commercial market areas as defined by municipal boundaries. However, the use of other geographic boundaries in certain areas of the county is also utilized.

In determining market areas, the appraiser examines market sales activity. During this examination, physical factors such as maintenance and upkeep of property and vacant tracts are considered. Municipal market areas are classified with Low, Fair, Average and Good codes.

Micro-areas are also a part of municipal market areas. Within any particular area there can exist niches where the market is recognizing a discount or premium as compared with similar areas. In these instances, the appraiser still maintains the Low, Fair, Average or Good market area classification but also adds a second identifier for the micro-area. Micro-areas are defined in large part by plotting sales activities geographically and using this geographical tool to identify these areas. In each instance, the second identifier contains a percentage adjustment. This adjustment modifies the properties as a discount or premium off of the baseline schedule.

Description of Commercial Improvement Model

The modeling techniques used by the Cherokee Central Appraisal District allow for specific adjustment for each category of property in the county. Commercial classifications roughly follow those set out in the Marshall and Swift Valuation Guide. In 2005, the district attempted to move from a strict numerical classification system with quality grades, to a more descriptive classification code. This move was abbreviated in its implementation due to software restrictions. Because of this, some of the new codes do exist along with the old numeric codes for this year. A brief discussion of both systems is in order.

The numeric classification is the loose result of matching the class to the particular Marshall and Swift section number. While this is predominately accurate to the section number, there are also exceptions to the rule. Following the numeric code, the classification was divided into the type of construction: steel, concrete or wood as noted here:

<u>Construction Code</u>	<u>Description of Construction Code</u>
C	Concrete
D	Wood
S	Steel

Further, the classification is divided into quality groups of good, average and low:

<u>Quality Code</u>	<u>Description of Quality Code</u>
G	Good
A	Average
L	Low

Utilizing this system yields classifications such as:

<u>Commercial Code</u>	<u>Description of Code</u>
10SA	Warehouse Steel Average Quality
21DG	Office Wood Good Quality
62CL	Concrete Low Quality

The District attempted to move from the non-descriptive numeric system to a more descriptive alpha system. In most cases, the District used the first several letters in a class description as the code. The reasoning was to create a code that more easily described the type of structure. For example:

<u>New Code</u>	<u>Code Description</u>
BASMNT	Basement
DEPT_STR	Department Store
DISP	Dispensary
REST_FF	Restaurant – Fast Food

The new codes were not divided into construction type or quality. Each new classification schedule represented the benchmark or median value for that particular structure group. It was intended to use certain new software capabilities to further differentiate the median value for quality and type factors. This software function was not put in place in time for a complete conversion to the new system. Therefore, this will limit the discussion on the new classification codes.

Finally, it is important to note that no market area extensions are present with commercial coding. Instead, all improved commercial property is based upon the same schedule. To differentiate for market areas, the only factor used is a 95% good factor on all commercial property outside of the City of Jacksonville.

Each code combination is tied to a specific table of value for that code. These tables are referred to by the Cherokee Central Appraisal District as “improvement schedules”. Each schedule contains a value per square foot of main improvement area. In this manner, the district is able to modify only schedules for a select group of properties if desired. The down side to this approach is that the district must track and maintain several different schedules.

Description of Land Model

Land modeling for the district’s commercial areas can be divided into categories similar to the residential neighborhooding shown previously in the Residential section. Market areas are defined as good, average, fair and low for the City of Jacksonville. For other cities, the areas are not divided into market areas. In these areas, commercial property is fairly homogenous throughout the municipality and does not warrant different market areas.

City of Jacksonville codes begin with “JC” followed by the market area code for good (G), average (A), fair (F) and low (L). If a particular account is more than one acre, an additional “A” is attached to the end of the code. Therefore, “JCG” would be Jacksonville Commercial Good while “JCFA” would be Jacksonville Commercial Fair Acreage for an account in excess of one acre.

The cities of Rusk, Troup, Alto and Wells have a different composition, beginning with the first letter of the city, followed by “CM1”. An “A” is appended for parcels over one acre. In this manner, “WCM1” is commercial land in the City of Wells under one acre while “TCM1A” would be commercial land over one acre in the City of Troup.

Finally, all land is valued based upon the total size of all contiguously controlled tracts of a particular owner. In other words, a person who owns several contiguous lots in a city block is valued on each individual lot as though it were one lot of the combined size. This is known as “pricing square footage”.

Procedures for Model Calibration

Each year, the Cherokee Central Appraisal District analyzes sold property as compared to the appraised value of that sold property. The calibration of the model begins here and progresses in two different stages. Land calibration first and followed by improvement calibration.

Land Model Calibration

The first stage in the commercial calibration process is to analyze and calibrate all commercial land schedules. Tract and lot sales are obtained through the various means discussed in the section titled “Types of Data”. This information is then analyzed by segregating the various sales into their respective categories identified by the land schedule code for that sold property. For each category that has sufficient sales activity, the sales are checked to confirm the total number of acres, square footage, front footage or number of lots involved in the transaction. The sales price is then divided by the appropriate total number of units to arrive at a price per unit. These prices per unit are then arrayed in ascending size of sale and plotted graphically. In this manner, the District has a picture of price per acre for example for all tracts plotted against size. In addition to the graph line for sales, the District plots a logarithmic trend line for sales. Over this graph, the District superimposes a graph of appraised value per unit for that particular category as determined by the current category schedule. Using the sales and the sales trend line as compared to the line for the appraisal schedule allows the District to move the appraisal plot in a manner that best fits the sales data.

Moving the appraisal plot to best fit the sales and sales trend lines will give the District the information needed to adjust the underlying schedule. Calibrating the schedule will result in all properties being revalued for that particular classification of land. In this manner, sold and unsold properties are all reappraised.

Typically, there are never enough sales in each different classification of property to perform the above mentioned process. In these instances, the District will adjust schedules lacking sufficient sales information based upon the adjustments of classifications with sales. For example, if there were sufficient sales to perform an analysis of average commercial land in Jacksonville (JCA) but not enough sales for JCF, the District would use the calibrated JCA schedule as a benchmark and adjust JCF up or down accordingly as compared to JCA. The same is also true of cities that lack sales activity. Often times, an entire city market area has a low volume of sales thus prohibiting a sales analysis. These cities will be adjusted based upon the activity of neighboring cities. The calibration of schedules or areas with low sales volume based upon similar schedules or cities is referred to by the District as “blending”. When blending schedules or areas, the District recognizes that there exists a certain difference between schedules or areas. For example, the District recognizes that property in Wells is not the same as property in Rusk or Jacksonville. A premium or discount is employed when blending. Consideration is given to the schedules or cities with the most sales volume and further consideration is given as to how other schedules or cities compare to them. The level of premium or discount is sought from what sales are available in the low volume areas complemented with appraisal experience and judgment.

Once these processes are completed for a market area and all relevant schedules calibrated, the CAMA system is recalculated in order to update all relevant parcels with the new appraisal data. Sales ratio reports are again pulled and the sold properties appraised value per unit is double checked against the predicted outcome from the sales plotting discussed above. Attention is also given to the relative change in appraised value for all properties as compared against the percentage change applied in the calibration process. This allows the District to identify properties or schedules of property that did not change in the manner anticipated by the calibration process. When these tasks are complete, the CAMA system is ready with reappraised land values and therefore ready for the next step which is the calibration of commercial improvements.

Improvement Model Calibration

The second stage in the commercial calibration process is to analyze and calibrate all improvement schedules. This can be accomplished in two different methods. First, the Sales Market Approach using sales data that can be obtained may be performed following the same procedures for data collection and segregation as outlined above in the Residential Improvement Calibration process. Second, commercial calibration can also be accomplished utilizing income and expense data from rents or leases via the Income Approach to value.

Sales Market Approach

Under the Sales Market Method, the sales ratio is found by the following formula:

$$100 * (\text{Appraised Market Value} \div \text{Sales Price}) = \text{Sales Ratio} \%$$

The sales ratio measures the level of appraised market value against a known sales price on a particular parcel of property. Ratios under 100% indicate a sold property that is under appraised. Ratios over 100% indicate a sold property that is over appraised. The sales ratio is the first step in the analytical process.

Sales ratios are examined by improvement classification. For example, the district will look at all sales ratios for average quality frame structure offices in the City of Rusk (21DA). This task is performed for all classifications of sold property. Greater weight is given to those classifications of property that possess adequate numbers of sales for analysis. As this process proceeds, the district will examine those classifications for the influence of several factors such as physical condition, time of sale, and market area making adjustments as necessary to the analysis. After analyzing and adjusting the sales ratios for these factors, the District calculates a weighted mean ratio for that classification found by the following formula:

$$100 * (\sum \text{Appraised Market Values} \div \sum \text{Sales Prices}) = \text{Weighted Sales Ratio} \%$$

The District also calculates a Coefficient of Dispersion (COD) for that sample by the following formula:

$$(\text{Average Absolute Deviation} \div \text{Median Sales Ratio}) 100 = \text{COD}$$

The average absolute deviation is the mathematical average of the absolute value of the differences between the sales ratio on each parcel as compared to the median ratio for that sample. The COD is used to measure uniformity while the weighted mean ratio is used to measure level of appraisal. The District utilizes these two factors when giving weight to what classifications to use as baseline schedules. The baseline schedules will determine how other schedules that lack adequate sales information are modified. This is also a blending process as described in the section for land calibration. Blending in the improvement sense will include differing classes of quality, exterior type and neighborhood. The appraiser uses market data and appraisal judgment to apply premium or discount factors to the baseline schedule(s) when adjusting non-baseline schedules.

Once all schedules are calibrated and the data entered into the CAMA system, the system is recalculated and sales ratio reports are pulled again for the purpose of seeing how the changes actually affected the model. Modifications to schedules or to other area or neighborhood factors are examined at this point. Following these adjustments, the District combines all sales ratios for improved property in order to analyze the overall weighted mean ratio and COD.

Income Approach

The Income Approach to value examines the factors typically recognized by investors. In actuality, an investor is purchasing the “income stream” when they purchase a property. This is contrast to buyers who buy property for consumptive or personal use. Because of this, the Income Approach to value is often the best method of valuation for commercial types of real estate. The District primarily uses the Direct Capitalization method in lieu of the Discounted Cash Flow method. This report will focus primarily on the Direct Cap method.

Data collected for the Direct Cap method will be the various rent or lease incomes and the typical expenses necessary to maintain the real property and thereby support the income stream. The collection of expense data requires attention to age and or condition of the property as properties that are older or in below average condition require higher maintenance and upkeep expenses. Additionally, rent or lease income levels are often affected by location factors. For example, retail strip lease rates for Tyler are different from retail lease rates in Rusk for the most part.

Both income and expense metrics will differ not only from location to location, as well as, condition of the property, but also by type of property. Retail strip centers differ from warehouse space and so on. It should be noted however that there are certain types or categories of commercial real estate that have a market area much larger than the immediate geographic area or even larger than the county within which the property is located. These types of properties may be sought after by real estate investors over a very broad market area. For example, mini-storage warehouses may be bought by investors based on a relatively narrow range of income and expense metrics obtained from sales comparables in across many different counties. Other examples of this would be convenience stores, warehouse space, retail strip centers and offices. It is important to determine the market area of a commercial property first when collecting and using income data. If the demand for the property is primarily from local markets, local market data should be used. If the demand for the property can be found across counties, then market data from various comparable counties may be employed.

A third metric is also collected for the Direct Capitalization method. That metric is the capitalization rate. This rate considers investor expectations of return associated with the investment. These are quantified into expectations regarding management, non-liquidity risk, general risk and the return that could be earned from a “safe” investment such as U. S. treasuries. There are many techniques to develop a capitalization rate and these will not be discussed in this report. However, one predominant method is to extrapolate a capitalization rate from a recent sale in which income and expense information may be directly or indirectly determined.

The general formula for the Income Approach to value using the Direct Capitalization Method is:

$$V = \text{NOI} \div R$$

Where NOI = Net Operating Income; R = Capitalization Rate; and V = Market Value

When calibrating the CAMA system using the Income Approach, appraisers will develop spreadsheets to warehouse and value commercial properties by property type. This often leads appraisers to determine value via an Excel spreadsheet and then transfer that value into the CAMA software. Since the Income Approach derives a total property value, the appraiser must allocate the value of the structures apart from the value of the land when loading the spreadsheet value into the CAMA system. The typical method for this is to subtract the CAMA generated land value from the income value in order to obtain the value for the structures. The appraiser may then overwrite that value onto the structure segments in the CAMA account.

Timber Land Modeling:

General Discussion

There are market type areas for timberland here in East Texas. These areas have more to do with the actual soil than any real external economic influence. Timberland is divided into nine primary categories in CCAD. All categories are variations of two factors: Soil class and Timber type.

Description of Timber Model

Soil class is divided into class I, II and III. Soil types were taken from U. S. Soil Conservation Service maps. Timber type is a judgment call by the appraiser utilizing the infrared aerial maps and/or field inspection. Primary timber production is divided into Pine, Hardwood or Mixed. Each of these nine categories carries a different productive value.

<u>Timber Code</u>	<u>Description of Code</u>
PT1	Pine Timber/Soil Class I
PT2	Pine Timber/Soil Class II
PT3	Pine Timber/Soil Class III
HT1	Hardwood Timber/Soil Class I
HT2	Hardwood Timber/Soil Class II
HT3	Hardwood Timber/Soil Class III
MT1	Mixed Timber/Soil Class I
MT2	Mixed Timber/Soil Class II
MT3	Mixed Timber/Soil Class III

Timber also has several other special categories assigned to it by Subchapter H, Chapter 23 of the TPTC. These categories concern reforestation and conservation efforts.

Two methods are available to promote reforestation. First, property owners can plant their pastures in timber and receive a pasture valuation for fifteen years following the planting. The code structure for this model is in the form of the type of timber being planted, followed by a “P” for pasture and then the last two digits of the year. In this manner you have the following examples of code

<u>Code</u>	<u>Code Description</u>
PP05	Pine to Pasture 2005
HP99	Hardwood to Pasture 1999
MP00	Mixed to Pasture 2000

Second, timber owners can replant their tracts that have been harvested and receive a 50% reduction for ten years following the replanting. Finally, there are sections of timberland receiving a 50% valuation in conservation appraisals for critical wildlife habitat (CWH), streamside management zones (SMZ) and aesthetic management zones (AMZ). Critical wildlife habitats are areas where logging is restricted in order to preserve the habitat of endangered species. Streamside management

zones are areas of restricted logging along streams and other waterways to preserve water quality. Aesthetic management zones are composed of bands of unharvested timber along major roadways for the purpose of creating pretty roadsides that may be seen by passing tourists so they will think paper and lumber comes from other planets.

Timber Model Calibration

Each year, the State Comptroller's Property Tax Assistance Division (PTAD) generates a spreadsheet of timber values using the statutory formulas set out in the Comptroller's Timber Appraisal Manual. Basically, the ability of the soil to produce board footage per year with a five year running average of prevailing prices is calculated and then capitalized with a statutory discount rate to arrive at value per acre.

The PTAD uses this figure to compare to our values in their biennial study. Because the State uses their figures as a benchmark, CCAD does not compute in-house values for timber nor do we accumulate production data. We calibrate our model using the values determined by the PTAD.

SECTION III **BUSINESS PERSONAL PROPERTY**

Reappraisal Activities

General Discussion

Business Personal Property (BPP) is comprised of assets held by owners that produce income. The most typical subcategories of BPP are Furniture and Fixtures, Machinery and Equipment, Inventory and Supplies and Vehicles. At times, we also include Leasehold Improvements to an account. Leasehold Improvements are physical improvements made to a leased structure where the improvements belong to the tenant and not the landlord.

CCAD reappraises more than 1,700 BPP accounts in a different manner than Real Estate property. Each year, we conduct a complete sweep of all BPP property that is able to be located. BPP assets that are not readily locatable are leased vehicles and leased equipment. Each year these types of assets are rendered by both lessee and lessor. When conducting a reappraisal sweep for BPP, appraisal staff typically inspects assets by entering a business with the permission of the owner. In situations where safety or security is an issue, CCAD appraisers will make appointments to inspect assets.

Actual valuations are not a result of modeling in the way that real estate is. Currently, we have no computerized method of mass appraisal. Instead, each rendition submitted by a property owner is reviewed. Modifications are made by the appraiser to adjust for depreciation. In instances where no rendition is filed, the appraiser may use good judgment to determine a value by utilizing all reference materials including renditions of similar properties. Finally, the CAD does not analyze any market areas for BPP due to the fact that BPP typically does not lend itself to market segmentation.

Current Status and Goals

Currently, our field inspections encompass a limited amount of data. Basically, we are ascertaining the presence of the assets on the appraisal roll and confirming ownership information. Our goal for the coming two years is to have our appraiser conduct in depth inspections throughout the year of each of the properties gathering much more data than we do at this time. In this manner, we will be able to begin modeling BPP to assist us in maintaining uniformity of values. Additionally, we will begin using the PTAD Field Appraiser's Manual sections on BPP to assist with atypical types of properties.

Resources

Our staff resources are identical to the resources shown in Section I of this Plan. However, there are some differences in application of those resources for BPP. To begin, one appraiser is tasked to actually conduct valuation efforts and one Data Entry/Records clerk is tasked with the data entry for all BPP accounts. All CCAD appraisers do participate in the reappraisal sweep, but only the one appraiser works the accounts for value.

The tools of the trade are also different for BPP reappraisal. The CAMA system is still used for data retention and retrieval but the BPP appraiser has three primary reference services that are used in the valuation effort. The appraiser uses a listing of all commercially registered vehicles in Cherokee County, a listing of aircraft hangered in Cherokee County and NADA "blue book" of passenger vehicle values. The listings assist in discovery, verification and valuation of vehicles and aircraft. In addition to these tools, CCAD utilizes depreciation tables developed by the PTAD. These tables are updated annually and are categorized by type of asset and economic life.

Schedule of Work

Since the reappraisals are performed on an annual basis, there is no alternating schedule for reappraisal. However, for the next two year cycle, we will be focusing on gathering more in depth information and in identifying and valuing those accounts that do not render or render insufficiently. This will also assist us in uniform valuation and enforcement of applicable penalty statutes.

Data Collection and Types

Types of Data

The primary foundation of the BPP reappraisal is the rendition and field inspection. Currently, we do receive renditions from property owners and we have already discussed the need for more in depth field inspections. The following are types of data that we will be or have been accumulating.

Square Footage of retail, warehouse or office space will be determined in order to compare one business to another and assist in creating a baseline for modeling efforts.

Density of Inventory is a manner that allows us to estimate the differences between a highly stocked location versus a location with little stock.

Quality of Inventory will assist us in differentiating high value inventory from low value inventory. The two measurements of Density and Quality will form the primary axis for the valuation model we are working toward.

Asset Listings are developed by businesses in their accounting activities and are useful tools for the appraiser to discover, list and value assets.

Collection and Retention

The data collected by the appraiser will be noted on the PRC for the property as well as individual notes in the BPP file for that location. Additionally, the property owner's confidential rendition is a part of the collection process. The PRC, notes and the rendition are entered by the one specified data entry clerk. Renditions are filed in separate file cabinets, away from non-confidential cabinets, with confidential warnings clearly notated on the cabinet drawer. They are filed in alphabetic order. Records in the CAMA software are not detailed enough to warrant confidential status because they merely list the aggregate values for each major category of asset and not the asset themselves.

SECTION IV
**INDUSTRIAL REAL, OIL & GAS, INDUSTRIAL PERSONAL, UTILITY,
RAILROAD & PIPELINE PROPERTIES**

General Discussion

These categories of property are the contractual responsibility of the outside valuation firm of Capitol Appraisal Group, Inc. (CAGI). CAGI is responsible for the discovery, listing and valuation of all property that falls under this section. As such, we are including the submission by CAGI as a part of this Plan. These items are found in Appendix A thru G of this document.

SECTION V

INDEPENDENT PERFORMANCE REVIEW

General Discussion

Beginning with Legislative changes in 2010, every two years, the PTAD conducts a Property Value Study (PVS) to ensure equity across the State for state aid to school districts. The PVS is mandated by state law and is intended to ensure that appraisal districts are statistically within a 5% margin of error of market value. The PTAD studies only categories of property that make up at least 5% of the total value of the school district. State field reviewers are dispatched to each CAD to gather data, inspect properties and perform appraisals. The information accumulated by the reviewers is then loaded into the State's computerized statistical model and the local value for each school district is compared to a high and low range of value generated by the model. This model creates a 5% statistical confidence interval within which the local value should be. While there are inherent deficiencies in the annual PVS, appraisal districts are still bound by compliance with the study. Study results are released on February 1st of the year following the year of study.

In the event that local value falls outside the interval, the school district and the CAD have the ability to protest the PVS to PTAD staff. If such discussions fail, the protesting parties may appear in a proceeding before the State Office of Administrative Hearings.

If the local test value falls more than 5% outside the upper and lower limits established by the model, the PTAD reports their determined value to the Texas Education Agency (TEA) as the certified value for state financial aid. Otherwise, the PTAD certifies local value to TEA.

In between the years in which the PVS is conducted, the PTAD conducts a Methods and Assistance Program audit that investigates District procedures, documentation and compliance with the Texas Property Tax Code. During those years, local value is certified to TEA provided the District has been found in compliance with the most recent PVS.

The Comptroller publishes the final findings of each PVS on their website:

<http://www.window.state.tx.us/taxinfo/proptax/>

Appendix A
CAGI Procedures for Identifying
New Properties & Evaluation

CAGI Procedure for Identifying New Property

Industrial Properties - General

Appraisal of industrial properties is limited to those properties indicated in the contract with the appraisal district unless the appraisal district requests the appraisal of other properties. Newly discovered properties will be discussed with the appraisal district to confirm they are to be appraised by Capitol Appraisal.

Industrial Real Property

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.

Industrial Personal Property

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 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.

Utility, Railroad and Pipeline Property

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.

Oil and Gas Property

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, CAG uses the following procedure:

1. Obtain a list from the Texas Railroad Commission of all leases currently producing or permitted in the CAD. Obtain permit plat for leases contained within the county.
2. Obtain a list of leases currently producing or permitted in neighboring counties with common borders and map relative location of leases to county's border. Obtain permit plat to determine if leases may have lease boundaries extending into county.
3. Using plats of leases with partial or all lease boundaries within the county, create a list of potential additional property to be added to the appraisal roll.
4. Compare list of potential leases with all currently producing leases in the CAD on January 1st of current tax year to determine any lease duplication.
5. Check to see if the lease was completed prior to January 1st or producing before January 1st of current tax year.
6. If lease has not previously been added to the CAD's appraisal roll, do so and obtain ownership.

Procedure for Evaluating Results of Contractor's Property Discovery for all property other than Oil and Gas

1. Review renditions and compare to appraisal roll.
2. Review local news articles.
3. Have chief appraiser or another appraiser ride with contract personnel during inspection process.
4. Meet with contract personnel and go over any discrepancies.
5. Stay aware of what is going on in the area and meet with contractor about new projects
6. Review contractor's appraisal roll and discuss any discrepancies.

Procedure for Evaluating Results of Contractor's Oil and Gas Property Discovery

1. Obtain a list from the Texas Railroad Commission of all new leases currently producing in the CAD.
2. Choose a sample of leases or if time permits list all new leases producing on January 1st, of current tax year.
3. Check to see if the lease was completed prior to January 1st or producing before January 1st of current tax year.
4. Compare to list of new leases currently producing or completed prior to January 1st of current tax year. If discrepancies exist contact contractor to discover why lease may be left off tax rolls. Some reasons may include but are not limited to: incorrect RRC reporting data, lease being listed under its permit number on current tax roll, or lease being currently listed under a prior RRC lease number.

5. If contractor has accounted for all new production and leases, the CAD has complied with the MAP requirement.

Procedure for CAD Verification of Services Provided by Appraisal Contractor

1. Verify lists of properties provided by the contractor agree with CAD's lists.
2. Verify appropriate methods of appraisal are used for each type of property [market, cost, income].
 - a. Inquire if there has been any change in agreed appraisal methodology or application.
 - b. Any variations from USPAP guidelines shall be documented and reviewed the following year.
3. Verify that complete and correct data resources, including market data, are used appropriately for each type of property.
 - a. Inquire if there are added or deleted sources.
 - b. If so, document reason for change and track affected properties.
4. Verify that contractor follows laws and statues applicable for all properties being appraised, including rendition compliance.
 - a. Verify that Property Tax Code [P. T. C.] 1.04 (7) is met for all relevant properties such that both the appraisal approach and its conclusions meet the definition of fair market value.
 - b. For minerals verify compliance with P. T. C 23.175 for mineral properties:
 - Use of Comptroller's Manual for Discounting Oil and Gas Income
 - Use of average product prices for the year prior to Jan 1
5. Verify agreed scheduling of:
 - a. Preliminary appraisal report summarizing progress in completing the year's appraisals.
 - b. Mail dates:
 - Notices of Appraisal
 - Last date to file a protest
 - ARB meeting dates
 - c. Compilation of Certified Estimate of Value in accordance with P. T. C. 26.01 (e)
 - d. copies of all appraisal and supporting data in agreed format
6. Verify timely receipt and correct format of following information:
 - a. Value
 - preliminary appraised value
 - preliminary appraisal roll
 - certified roll including all documentation
 - b. Reports
 - new property listing
 - list of renditions
 - protests and waives of protest
 - pending protest list
 - value change report

Appendix B
CAGI Plans for Periodic
Reappraisal of Property

2025-2026

CAGI Plan for Periodic Reappraisals

Industrial Personal Property

Subsections (a) and (b), Section 25.18, Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
- (b) The plan provides for annual reappraisal of all industrial personal property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.
 - (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.

Industrial Real Property

Subsections (a) and (b), Section 25.18, Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).

- (b) The plan provides for annual reappraisal of selected industrial property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.
- (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 the 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.

Utility, Railroad and Pipeline Property

Subsections (a) and (b), Section 25.18, Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
- (b) The plan provides for annual reappraisal of all utility, railroad and pipeline property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.
 - (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 Division of the Texas Comptroller's Office through their annual Property Value Study.

Oil and Gas Property

In accordance with Section 25.18 of the Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property as approved by the board of directors under Section 6.05 (i).
- (b) The plan provides for annual reappraisal of all oil and gas property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, LLC (CAGL) to appraise these properties for the CAD.
 - (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 expands the review process.

Appendix C
CAGI Mass Appraisal
Procedures and Timelines

Mass Appraisal Procedures and Timelines

Industrial Personal Property

Although valuation is set for either January 1 of the tax year or September 1 of the previous calendar year prior to the current tax year, the appraisal process begins in September of the previous year and continues through August of the tax year.

September 1 of previous year to March 31 of the current tax year

Discovery and listing. This includes physical inspection of existing properties to appraise and discovery of potential new properties to appraise. New potential properties are reported to the appraisal district to determine if Capitol Appraisal will value the property for the current tax year.

April 1 until complete

Appraisal of properties both market value and taxable value. Deadlines for completion of appraisals and sending out value notices are based upon individual deadlines set by the appropriate appraisal district. Every effort is made to appraise every property timely so that values can be included in certification. Properties not included in certification are reported to the appraisal district and the appraisal process continues until the final value is reached. Supplementing the tax roll with those properties is based upon the timeline established by the appraisal district.

July 25

Appraisal roll is certified. Every effort is made to ensure all properties have a final valuation by this date. Exceptions may include properties with late renditions, extensions, or other allowable justifications which preclude final valuation by July 25.

July 26 to August 31

Review current tax year methods and procedures and begin general property classification research for the next tax year. Special reports for the appraisal districts are created at this time as requested.

Industrial Real Property

Although valuation is set for either January 1 of the tax year or September 1 of the previous calendar year prior to the current tax year, the appraisal process begins in September of the previous year and continues through August of the tax year.

September 1 of previous year to March 31 of the current tax year

Discovery and listing. This includes physical inspection of existing properties to appraise and discovery of potential new properties to appraise. New potential properties are reported to the appraisal district to determine if Capitol Appraisal will value the property for the current tax year.

April 1 until complete

Appraisal of properties both market value and taxable value. Deadlines for completion of appraisals and sending out value notices are based upon individual deadlines set by the appropriate appraisal district. Every effort is made to appraise every property timely so that values can be included in certification. Properties not included in certification are reported to the appraisal district and the appraisal process continues until the final value is reached. Supplementing the tax roll with those properties is based upon the timeline established by the appraisal district.

July 25

Appraisal roll is certified. Every effort is made to ensure all properties have a final valuation by this date. Exceptions may include properties with late renditions, extensions, or other allowable justifications which preclude final valuation by July 25.

July 26 to August 31

Review current tax year methods and procedures and begin general property classification research for the next tax year. Special reports for the appraisal districts are created at this time as requested.

Utility, Railroad and Pipeline Property

Although valuation is set for either January 1 of the tax year or September 1 of the previous calendar year prior to the current tax year, the appraisal process begins in September of the previous year and continues through August of the tax year.

September 1 of previous year to March 31 of the current tax year

Research and capitalization rate development. For properties valued via the income approach data is obtained and analyzed for calculation of a capitalization rate appropriate to a specific property type.

October to December

Submission of appraisals to the Property Tax Assistance Division (PTAD) of the Comptroller's office and preparation of value defense for any properties included in their ratio study. Defense documentation and appraisal analysis of the PTAD appraisal is prepared and submitted to the appraisal district or the representative of the taxing jurisdictions whichever is appropriate.

April 1 until complete

Appraisal of properties both market value and taxable value. Deadlines for completion of appraisals and sending out notice of value are based upon individual deadlines set by the appropriate appraisal district. Every effort is made to appraise every property timely so that values can be included in certification. Properties not included in certification are reported to the appraisal district and the appraisal process continues until the final value is reached. Supplementing the tax roll with those properties is based upon the timeline established by the appraisal district.

July 25

Appraisal roll is certified. Every effort is made to ensure all properties have a final valuation by this date. Exceptions may include properties with late renditions, extensions, or other allowable justifications which preclude final valuation by July 25.

July 26 to August 31

Review current tax year methods and procedures and begin general property classification research for the next tax year. Special reports for the appraisal districts are created at this time as requested.

Oil and Gas Property

Capitol Appraisal Group, LLC (CAGL) contracts with Appraisal Districts and other governmental entities to appraise all oil and gas subsurface, producing, mineral interests within the purview of the law.

October-December:

SEC 10(k) data gathered for use in discount rate study.

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 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 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. This analysis is calibrated with a WACC for the same companies that are used in the stock and debt analysis. Management determines an appropriate base discount rate to be used.

January:

Discount rate study finalized.

November-March:

The appraiser commences the annual appraisal cycle with identification of new property and determination of situs.

"Minerals in place" and an estate or interest in the same, are classified by the state of Texas as real property. 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 minerals in place and estates or interests in the same. CAGL obtains monthly oil and gas lease production information from the Railroad Commission of Texas [RRC] and compares it to existing oil and gas properties already identified and appraised. New properties are identified in this process by comparing existing data to new information obtained from the RRC.

The appraiser determines the validity of new properties and then determines the situs of these new properties by obtaining plats, W-2/G-1 records obtained from the RRC, and using in-house mapping resources.

January-March:

Appraisers begin entering detailed new property information.

Along with RRC lease specific information, the appraiser enters the lease's legal description, its situs, and detailed lease information obtained from the RRC. This process of discovery and entry into the appraisal system

continues year-round to identify assessable properties that are obtained because of delays in the RRC reporting system.

February:

Comptroller's 23.175 pricing data and market condition factors are obtained and incorporated into the appraisal system.

February-April:

Properties are appraised and values are posted on the CAG web site for clients, operators and agents to review and submit information.

Appraiser(s) access production declines for leases to be appraised. Based on the appraiser's decline rate analysis and review of previous year's appraisal parameters and current Comptroller pricing data, the estimated value for the current appraisal year is determined.

Preliminary appraised values are available from the CAG web site www.cagi.com following appraiser and supervisor review.

April-May:

Preliminary appraisals reviewed.

Appraisers review operating expenses, product prices, new or revised information about production submitted by operators and agents before Notifications of Value are mailed to taxpayers.

May-July:

Notified values formally & informally reviewed.

Appraisers work with taxpayers following Notification of Value and continue to review information submitted by royalty owners, operators and agents.

Appendix D
CAGI Calibration
Testing Procedures

Model Calibration & Testing

Properties Appraised by Capitol Appraisal Group, LLC.

Business Personal Property

Review and Testing: Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process. A computer-assisted statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance and are used when possible. However sales for some types of personal property are very infrequent. Furthermore, many market transactions occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Lastly, Capitol Appraisal Group's industrial appraisal methods and procedures for real and personal property are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review as well as appraisal-to-sale ratios and comparisons with single-property appraisals indicate the validity of the models and the calibration techniques employed. Commercial personal property appraised by Capitol Appraisal Group, LLC is not subject to a methods and procedures review however it is included in the Property Tax Division's annual ratio study with satisfactory results.

Industrial Property

Review and Testing: Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process. A computer-assisted statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance, however sales are very infrequent. Furthermore, market transactions normally occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Lastly, Capitol Appraisal Group's industrial appraisal methods and procedures are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review as well as comparisons with single-property appraisals indicate the validity of the models and the calibration techniques employed.

Utility, Railroad & Pipeline Properties

Review and Testing: Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process. A computer-assisted statistical review of property value changes is also conducted.

Appraisal to sales ratios are the preferred method for measuring performance, however sales are very infrequent. Furthermore, market transactions normally occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Appraisal results are tested annually by the Property Tax Division of the Texas Comptroller's Office. The Comptroller's review as well as comparisons with single-property appraisals indicate the validity of the models as well as the calibration techniques employed.

Oil & Gas Reserves

Review and Testing: Each year we review the estimated market value for each mineral property appraised according to its year-to-year value change and also to industry expected payouts and income indicators. We also examine income projected to be received with the previous year's income and test that income against the lease's appraised value. Market value for income producing properties is a multiple of its monthly or annual income. Our experience through the years indicates that values typically vary within a range of 2-5 times income, provided all appropriate income factors have been appropriately identified. Periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser also contribute to the review process.

Application of appraisal-to-sales ratios is another method for measuring performance. However, single property sales or sales of interest(s) within a property remain difficult to obtain due to Texas' disclosure laws. Furthermore, many market transactions are normally for multiple properties in multiple areas and include both real and personal property, tangible and intangible. We access licensed databases providing statistical data for company and property sales to compare our efforts. We also measure our performance through comparison of valid single-property market transactions, if any, that are submitted for staff review. Lastly, Capitol Appraisal's mineral appraisal values are subject to review each year in the Property Value Study conducted by the Property Tax Division of the Texas Comptroller of Public Accounts. The Property Tax Division's review as well as comparisons to industry transactions and to single-property market value sales (when available), indicate the validity of the models, techniques and assumptions used.

Appendix E
CAGI Samples of Delivered
Documentation

Documents 9A-J

Contractor's Appraisal Documentation Delivered to the CAD

Note: Appraisal formats subject to change

Industrial

Unit Pipeline	9A
Investor-owned Electric	9B
Investor-owned telephone8	9C
Electric Coop	9D
Telephone Coop	9E
Plant Summary	9F

Oil and Gas

Oil lease #1	9G
Oil lease #2	9H
Gas Property #1	9I
Gas Property #2	9J

2010

DOCUMENT 9A

SAMPLE PIPELINE COMPANY

UNIT APPRAISAL

10/5/2010

INCOME APPROACH

YEAR	AFTER TAX NOI	NET PLANT IN SERVICE		NOI / AVG of prev yr and current yr NPIS
2004	18,111,707	84,791,838		
2005	18,726,411	497,538,026		0.0643
2006	56,177,093	535,687,803		0.1087
2007	66,740,951	851,292,542		0.0962
2008	84,283,848	1,236,732,019		0.0807
2009	146,430,277	1,820,553,365	1.472067786	0.0958

PROJECTIONS OF NOI

MOST RECENT YEAR				146,430,277
FIVE YEAR AVERAGE				74,471,716
FIVE YEAR WEIGHTED AVERAGE				93,372,682
TREND ON 3 YR RETURN ON NPIS			0.0907	165,117,335
LINEAR REGRESSION ON NOI	CORR. COEFF. =		0.96	159,526,062
LIN. REGRESS. ON NOI/NPIS	CORR. COEFF. =		0.98	200,947,084
PROJECTED TYPICAL NET OPERATING INCOME				120,000,000
NET INCOME ATTRIBUTABLE TO CWIP (SEE P. 3)				24,277,319
TOTAL NET INCOME TO CAPITALIZE				144,277,319
CAPITALIZATION RATE				0.1085
VALUE INDICATED BY INCOME APPROACH				1,329,202,314

NET INCOME ATTRIBUTABLE TO
CONSTRUCTION WORK IN PROGRESS
NOT IN THE RATE BASE

TOTAL CONSTRUCTION WORK IN PROGRESS				364,645,300
CONSTRUCTION WORK IN PROGRESS IN RATE BASE				0
CONSTRUCTION WORK IN PROGRESS NOT IN RATE BASE				364,645,300
DISCOUNTED FOR	3	YEAR(S) AT A RATE OF :	0.1085	267,677,257
PROJECTED NET INCOME FROM CWIP				24,277,319

COST APPROACH

UTILITY PLANT	1,904,925,695
CONSTRUCTION WORK IN PROGRESS	364,645,300
TOTAL UTILITY PLANT	2,269,570,995
ACCUMULATED DEPRECIATION AND AMORTIZATION	93,270,899
NET UTILITY PLANT	2,176,300,096
GAS STORED - BASE GAS	0
SYSTEM BALANCING GAS	0
GAS STORED UNDERGROUND - NON-CURRENT	0
GAS STORED - SYSTEM GAS	0
GAS STORED - CURRENT	7,453,749
PLANT MATERIAL AND OPERATING SUPPLIES & STORES EXPENSE UNDISTRIBUTED	1,444,820
NET BOOK VALUE	2,185,198,664
ECONOMIC OBSOLESCENCE (SEE BELOW)	874,079,466
VALUE INDICATED BY COST APPROACH	1,311,119,199

CALCULATION OF ECONOMIC OBSOLESCENCE

HISTORICAL RATE OF RETURN (5 YEAR AVG.)	0.0907
CURRENT DESIRED RATE OF RETURN	0.1085
INDICATED FRACTION NON-OBSOLESCE	0.8356
MOST RECENT RATE OF RETURN	0.0958
CURRENT DESIRED RATE OF RETURN	0.1085
INDICATED FRACTION NON-OBSOLESCE	0.8825
PROJECTED RATE OF RETURN	0.0659
CURRENT DESIRED RATE OF RETURN	0.1085
INDICATED FRACTION NON-OBSOLESCE	0.6073
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCE	0.6000
FRACTION OBSOLETE	0.4000
ECONOMIC OBSOLESCENCE	874,079,466

CORRELATION

INCOME INDICATOR OF VALUE	1,329,202,314
COST INDICATOR OF VALUE	1,311,119,199
CORRELATED UNIT VALUE	1,315,000,000
MARKET VALUE /ORIGINAL COST	0.5771
MARKET VALUE/NET BOOK VALUE	0.6018
REPLACEMENT COST NEW OF SOFTWARE	0
MARKET VALUE OF SOFTWARE	0
MARKET VALUE TO ALLOCATE	1,315,000,000
MARKET VALUE /ORIGINAL COST (EXCLUDING SOFTWARE)	0.5771
MARKET VALUE/NET BOOK VALUE (EXCLUDING SOFTWARE)	0.6018

ALLOCATION

PLANT IN SERVICE

NET PLANT IN SERVICE	1,811,654,796
NET BOOK VALUE	2,185,198,664
PERCENT TO PLANT IN SERVICE	0.8291
CORRELATED UNIT VALUE	1,315,000,000
PERCENT TO NET UTILITY PLANT	0.8291
UNIT VALUE OF PLANT IN SERVICE	1,090,210,284

TEXAS PLANT IN SERVICE

	TEXAS	TOTAL CO.	% TO TEXAS
NET PLT IN SRVC	1,811,654,796	1,811,654,796	1.0000
GRS PLT IN SRVC	1,904,925,695	1,904,925,695	1.0000
CONCLUSION			1.0000
UNIT VALUE OF PLANT IN SERVICE			1,090,210,284
PERCENT TO TEXAS			1.0000
UNIT VALUE OF TEXAS PLANT IN SERVICE			1,090,210,284

TEXAS GATHERING & TRANSMISSION PIPE

	TEXAS PIPE	TEXAS PLANT IN SERVICE	% TO PIPE
NET INVESTMENT	1,343,744,175	1,811,654,796	0.7417
GROSS INVESTMENT	1,397,895,771	1,904,925,695	0.7338
		CONCLUSION	0.7378
UNIT VALUE OF TEXAS PLANT IN SERVICE			1,090,210,284
% TO PIPE			0.7378
UNIT VALUE OF TEXAS PIPE			804,332,157
REPLACEMENT COST NEW LESS DEPRECIATION OF TEXAS PIPE			970,647,820
CORRELATED MARKET VALUE OF TEXAS PIPE			800,000,000
PTD's SCHEDULE 1 VALUE OF TEXAS PIPE			640,872,407
RATIO OF CORRELATED VALUE TO SCHEDULE VALUE (ENS)			1.2483

-

2010

DOCUMENT 9B

SAMPLE ELECTRIC IOU COMPANY

UNIT APPRAISAL

Appraiser

INCOME APPROACH

YEAR	NET OPERATING INCOME*	NET PLANT IN SERVICE*		NOI/NPIS OF PRV. YR. & CURRENT YR.
2004	68,027,209	685,658,796		
2005	61,265,796	706,760,852	1.030776	0.0894
2006	56,814,104	685,850,642	0.970414	0.0804
2007	32,745,832	732,197,728	1.067576	0.0477
2008	50,477,347	749,480,314	1.023604	0.0689
2009	46,565,398	824,721,310	1.100391	0.0621

*INCLUDES M&S AND STORED GAS.

PROJECTIONS OF NOI

MOST RECENT YEAR				46,565,398
THREE YEAR AVERGAE				43,262,859
FIVE YEAR AVERAGE				49,573,695
THREE YEAR WEIGHTED AVERGAE				45,566,120
FIVE YEAR WEIGHTED AVERAGE				47,191,192
FIVE YR. AVG. RETURN ON NPIS			0.0697	57,492,045
LINEAR REGRESSION ON NOI	CORR. COEFF. =		(0.71)	38,852,429
LIN. REGRESS. ON NOI/NPIS	CORR. COEFF. =		(0.00)	49,560,383
PROJECTED TYPICAL NET OPERATING INCOME				48,000,000
NET INCOME ATTRIBUTABLE TO CWIP (SEE P. 3)				2,258,138
TOTAL NET INCOME TO CAPITALIZE				50,258,138
CAPITALIZATION RATE				0.0994
VALUE INDICATED BY INCOME APPROACH				505,450,487

NET INCOME ATTRIBUTABLE TO
CONSTRUCTION WORK IN
PROGRESS
NOT IN THE RATE BASE

TOTAL CONSTRUCTION WORK IN PROGRESS			82,283,128
CONSTRUCTION WORK IN PROGRESS - MAINTENANCE			46,669,321
CONSTRUCTION WORK IN PROGRESS NOT IN RATE BASE			35,613,807
DISCOUNTED FOR	1	YEAR(S) AT A RATE OF :	0.0994
PROJECTED NET INCOME FROM CWIP			2,258,138

COST APPROACH

UTILITY PLANT	1,357,257,700
CONSTRUCTION WORK IN PROGRESS	82,283,128
TOTAL UTILITY PLANT	1,439,540,828
NET NUCLEAR FUEL	0
ACCUMULATED DEPRECIATION AND AMORTIZATION	552,521,228
NET UTILITY PLANT	887,019,600
MERCHANDISE	0
FUEL STOCK	9,645,377
PLANT MATERIAL AND OPERATING SUPPLIES	10,339,461
LIQUIFIED NATURAL GAS HELD FOR PROCESSING	0
NET BOOK VALUE	907,004,438
ECONOMIC OBSOLESCENCE (SEE BELOW)	380,941,864
VALUE INDICATED BY COST APPROACH	526,062,574

CALCULATION OF ECONOMIC OBSOLESCENCE

HISTORICAL RATE OF RETURN (5 YEAR AVG.)	0.0697
CURRENT DESIRED RATE OF RETURN	0.0994
INDICATED FRACTION NON-OBSOLESCE	0.7011
MOST RECENT RATE OF RETURN	0.0621
CURRENT DESIRED RATE OF RETURN	0.0994
INDICATED FRACTION NON-OBSOLESCE	0.6248
PROJECTED RATE OF RETURN	0.0582
CURRENT DESIRED RATE OF RETURN	0.0994
INDICATED FRACTION NON-OBSOLESCE	0.5853
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCE	0.5800
FRACTION OBSOLETE	0.4200
ECONOMIC OBSOLESCENCE	380,941,864

STOCK AND DEBT APPROACH

EQUITY	
NO. SHARES	403,554,634
\$ / SHARE	30.26
EQUITY VALUE	12,211,563,225
PERCENT TO COMPANY	0.0816
ALLOCATED EQUITY VALUE	995,860,423
LONG -TERM DEBT	368,964,682
TOTAL STOCK AND DEBT VALUE	1,364,825,105

CORRELATION

INCOME INDICATOR OF VALUE	505,450,487
COST INDICATOR OF VALUE	526,062,574
STOCK & DEBT INDICATOR OF VALUE	1,364,825,105
DISCOUNTED CASH FLOW INDICATOR OF VALUE	591,713,506
APPRAISER'S OPINION OF MARKET VALUE	510,000,000
MARKET VALUE /ORIGINAL COST	0.3494
MARKET VALUE/NET BOOK VALUE	0.5623
TOTAL VALUE OF TRANSMISSION AND DISTRIBUTION	343,397,389

ALLOCATION

ORIGINAL COST OF DIST. SYSTEM INCL. INVEST IN GENERAL PLANT	624,524,151
ORIGINAL COST OF TRANSMISSION SYSTEM	411,838,471
ORIGINAL COST OF PRODUCTION PLANT	295,065,069
ORIGINAL COST OF INTANGIBLE PLANT	22,895,904
TOTAL ORIGINAL COST	1,354,323,595

DISTRIBUTION PLANT

ORIGINAL COST OF DIST. SYSTEM INCL. INVEST IN GENERAL PLANT	624,524,151
ORIG. COST OF LAND AND LAND RIGHTS	1,103,824
ORIG. COST OF STRUCTURES AND IMPROVEMENTS	111,337
ORIG. COST OF STATION EQUIPMENT	74,929,157
ORIG. COST OF LAND AND LAND RIGHTS IN GENERAL PLANT	1,876,687
ORIG. COST OF STRUCTURES AND IMPROVEMENTS IN GENERAL PLANT	24,144,259
ORIGINAL COST OF INTANGIBLES	387,073
DIST. PLANT EXCL. SUBSTATIONS AND LAND	521,971,814
MARKET VALUE/ ORIGINAL COST	0.3494
MARKET VALUE OF DIST. EXCL. SUBSTATIONS AND LAND	182,391,876
TOTAL METERS	192,937
MARKET VALUE PER METER	945

TRANSMISSION PLANT

ORIGINAL COST OF TRANSMISSION SYSTEM	411,838,471
ORIG. COST OF LAND AND LAND RIGHTS	11,235,765
ORIG. OF STRUCTURES AND IMPROVEMENTS	1,365,537
ORIG. COST OF STATION EQUIPMENT	189,158,884
ORIG. COST OF LAND AND LAND RIGHTS IN GENERAL PLANT	570,685
ORIG. COST OF STRUCTURES AND IMPROVEMENTS IN GENERAL PLANT	7,342,067
ORIGINAL COST OF INTANGIBLES	6,962,453
TRANS. PLANT EXCL. SUBSTATIONS AND LAND	195,203,080
MARKET VALUE/ ORIGINAL COST	0.3494
MARKET VALUE OF TRANS. EXCL. SUBSTATIONS AND LAND	68,209,538

	LINE TYPE	ORIG. COST	M.V./O.C.	MARKET VALUE	NO. MILES	MKT. VAL. PER MILE
	——	——			——	
	69 KV	73,552,521	0.3494	25,701,354	2,619.35	9,812
	138 KV	81,868,172	0.3494	28,607,080	1,458.78	19,610
	345 KV	39,801,908	0.3494	13,907,925	222.53	62,499
	115 KV	0	0.3494	0	0.00	0
	161 KV	0	0.3494	0	0.00	0
TOTALS		195,222,601		68,216,359	4,300.66	

SUBSTATIONS

ORIGINAL COST DIST. SUBSTATIONS	75,040,494
ORIGINAL COST TRANS. SUBSTATIONS	190,524,421
TOTAL ORIGINAL COST OF SUBSTATIONS	265,564,915
MARKET VALUE/ ORIGINAL COST	0.3494
MARKET VALUE OF SUBSTATIONS	92,795,975
TOTAL SUBSTATION KVA CAPACITY	9,279,606
VALUE PER KVA	10.00
Total T & D Value	343,397,389

* ACKNOWLEDGEMENT OF NEW VALUE FOR AD VREM TAXATION *

THE ABOVE LISTED NEW VALUES ARE RECOMMENDED BY TAP PRaiser FOR THE DISTRICT AND ACCEPTED BY THE AGENT/OWNER FOR THEXPAYER AS 2008 VALUES. THE AGENT/OWNER HEREBY WITHDRAWS PROTEST AND WAIVTHE RIGHT TO FURTHER NOTIFICATION OF VALUES.

TO BE VALID THIS SIGN-OFF MUST BE EXECUTED AND RRNED TO CAPITOL BY MIDNIGHT PRIOR TO YOUR ARB HEARING.

DISTRICT	CAPITOL	TAXPAYER/AGENT	BRA
Date	Date	Date	Date

APPENDIX A

DISCOUNTED CASH
FLOW
2010

ASSUMPTIONS:		NOI	46,565,398
		Income Taxes - Federal (409.1)	10,992,511
FIT RATE :	0.35000	EBFIT (NOI + INCOME TAXES)	57,557,909
DISC RATE:	0.09943		
GROWTH RA	0.04355	Interest on Long-Term Debt (427)	19,501,675
		Depreciation Expense (403)	42,404,799
		UTILITY PLANT	1,357,257,700
		Capital Expenditures %	3.00%
		Capital Expenditures	40,717,731

(000'S)

	2009	2010	2011
EBFIT (LESS DEPREC)	57,558	60,064	62,680
INTEREST	19,502	19,502	19,502
EARN. BF. TAX	38,056	40,563	43,179
FED INC TAX	(13,320)	(14,197)	(15,112)
NET INC AFTER FIT	24,737	26,366	28,066
INTEREST	(19,502)	(19,502)	(19,502)
DEPREC	42,405	42,405	42,405
CAP EXP	(40,718)	(40,718)	(40,718)
CASH FLOW	45,925	47,555	49,255
DISC FACT	0.95371	0.86746	0.78900
P.W.	43,799	41,251	38,862
	2012	2013	2014
EBFIT (LESS DEPREC)	65,410	68,258	71,231
INTEREST	19,502	19,502	19,502
EARN. BF. TAX	45,908	48,757	51,729
FED INC TAX	(16,068)	(17,065)	(18,105)
NET INC AFTER FIT	29,840	31,692	33,624
INTEREST	(19,502)	(19,502)	(19,502)
DEPREC	42,405	42,405	42,405
CAP EXP	(40,718)	(40,718)	(40,718)
CASH FLOW	51,029	52,881	54,813
DISC FACT	0.71765	0.65274	0.59371
P.W.	36,621	34,517	32,543

	2015	2016	2017
EBFIT (LESS DEPREC)	74,333	77,570	80,948
INTEREST	19,502	19,502	19,502
EARN. BF. TAX	54,831	58,068	61,447
FED INC TAX	(19,191)	(20,324)	(21,506)
NET INC AFTER FIT	35,640	37,745	39,940
INTEREST	(19,502)	(19,502)	(19,502)
DEPREC	42,405	42,405	42,405
CAP EXP	(40,718)	(40,718)	(40,718)
CASH FLOW	56,829	58,933	61,129
DISC FACT	0.54001	0.49117	0.44675
P.W.	30,689	28,947	27,310

2018

EARN. BF. TAX	84,473
INTEREST	19,502
EARN. BF. TAX	64,972
FED INC TAX	(22,740)
NET INC AFTER FIT	42,232
INTEREST	(19,502)
DEPREC	42,405
CAP EXP	(40,718)
CASH FLOW	63,420
DISC FACT	0.40635
P.W.	25,771

	RVRSN	TOTAL PW
EBFIT (LESS DEPREC)		
INTEREST		
EARN. BF. TAX		
FED INC TAX		
NET INC AFTER FIT		
INTEREST		
DEPREC		
CAP EXP		
CASH FLOW	618,690	
DISC FACT	0.40635	
P.W.	251,404	\$ 591,714

SAMPLE TELEPHONE COMPANY
DOCUMENT 9C

1/1/10 APPRAISAL

Appraiser

CAPITOL APPRAISAL GROUP, LLC

INCOME APPROACH

	ADJUSTED NOI excludes Pension Gains & Equip Sales		NPIS		NOI/NPIS
2004	27,609,661		213,294,189		0.129444
2005	31,403,708	114%	198,144,756		0.158489
2006	31,663,733	101%	181,767,566	92%	0.174199
2007	30,279,656	96%	166,977,937	92%	0.181339
2008	34,468,837	114%	152,788,425	92%	0.225598
2009	40,010,863	116%	136,460,682	89%	0.293204
		144.92%			
1.	Prior Year		40,010,863		40,010,863
2.	Simple 3 Year Average		34,919,785		34,919,785
3.	Weighted 3 Year Average		219,249,919		36,541,653
4.	Adjusted Weighted 3 Year Average		34,007,885		31,777,005
			34,047,670		34,391,486
			34,053,193		
5.	Linear Regression on NOI			0.81	39,571,184
6.	Linear Regression on NOI/NPIS			(0.81)	37,606,141
7.	Typical Return on Plant				39,582,694
8.	Linear regression on NOI vs. Access Lines			(0.85)	38,158,859
	PROJECTION less allowance for equipment sales:				35,000,000
	INCOME ATTRIBUTED TO CWIP				0
	Total Income to be Capitalized				35,000,000

INCOME APPROACH

SUBSCRIBER
ACCESS LINES

20043	167,000	
2005	162,000	97%
2006	156,489	97%
2007	151,717	97%
2008	147,248	97%
2009	139,353	95%
		83.44%

Market Value Estimate -- Income Approach



	Projection		Cap. Rate		Market Value	
Tangible NOI	27,465,176	/	0.1146	=	239,718,500	
Less V. S.	5,706,117	/	0.1146	=	49,803,501	0.16
Less DSL	1,828,707	/	0.1146	=	<u>15,961,115</u>	
System NOI	35,000,000	/	0.1146	=	305,483,115	

COST APPROACH

Plant in Service	\$566,897,345
Construction WIP	2,998,765
Non-Op Plant	
Subtotal	569,896,110
Miscellaneous Physical Property	0
Materials and Supplies	643,038
Total Operating Property	570,539,148
Less Depreciation Reserve:	
Depreciation & Amortization Reserve	430,436,663
Amortization Reserve	0
Depreciation Reserve	0
Total Depreciation Reserves & Plant Adjustments	430,436,663
NET BOOK	140,102,485
LESS: Software @ Net	0
INDICATED OBSOLESCENCE	150,000,000
COST APPROACH INDICATOR (INCLUDING INTANGIBLES)	290,102,485
Other Intangibles (trade name from D&T Appraisal)	9,300,000
Work Force	5,000,000
Buildings	24,099,934
COST APPROACH (EXCLUDING INTANGIBLES)	251,702,551

FINAL VALUE ESTIMATE

Income Approach Estimate (Excluding Intangibles)	\$239,718,500
Cost Approach Estimate (Excluding Intangibles)	251,702,551
AUS RCNLD STUDY	\$240,679,972
Income Approach System (Include Intangibles)	\$305,483,115
Cost Approach (Including Intangibles)	290,102,485

After careful consideration of this information, the total system value of SAMPLE COMPANY A excluding intangibles is as follows:

FINAL VALUE ESTIMATE	\$240,000,000
FINAL VALUE ESTIMATE SYSTEM (Including Intangibles)	\$305,483,115
MARKET VALUE TO COST	42.07%
MARKET VALUE TO NB	171.30%

REM TAXATION *
 APPRAISER FOR THE
 PAYER AS 2010 VALUES.
 THE RIGHT TO FURTHER

NOTIFICATION OF VALUES.
 * ACKNOWLEDGEMENT OF NEW VALUE FOR AD VALO
 THE ABOVE LISTED NEW VALUES ARE RECOMMENDED BY THE
 DISTRICT AND ACCEPTED BY THE AGENT/OWNER FOR THE
 BY MIDNIGHT PRIOR TO YOUR ARB HEARING.
 THE AGENT/OWNER HEREBY WITHDRAWS PROTEST AND WAIVES

RNED TO CAPITOL

TO BE VALID THIS SIGN-OFF MUST BE EXECUTED AND RETU

District	Capitol	Taxpayer/Agent	ARB
Date	Date	Date	Date

ALLOCATION

(A)	Total System Value		\$240,000,000
(B)	Texas Utility Plant in Service	\$566,897,345	
(C)	System Gross Utility Plant	\$566,897,345	
(D)	Texas Apportionment Factor (B)/(C)		100.00%
(E)	Texas Net Utility Plant	\$140,102,485	
(F)	System Net Utility Plant	\$140,102,485	
(G)	Texas Apportionment Factor (E)/(F)		100.00%
(H)	Average Apportionment Factor [(D)+(G)]/2		100.00%
			-
(I)	Texas Value (H) * Total Market Value		\$240,000,000
(J)			
(K)	Buildings & Land	\$24,099,934	
(L)	Total Land and Buildings (J)+(K)		\$24,099,934
(M)	Original Cost	\$570,539,148	
(N)	Percentage Attributable to Land and Buildings (L)/(M)		4.22%
	Other Intangibles (trade name from D&T Appraisal)		9,300,000
	Work Force		5,000,000
	Value to Allocate [(I)-(I*N)]		\$215,562,248
	Total Rendered Value		171,000,000
	ratio of Value to Allocate to Rendered Value		1.2606
	Ratio of Value to Allocate to Original cost		0.3782

NET OPERATING INCOME ATTRIBUTED TO CONSTRUCTION WORK IN PROGRESS

(A) Total Construction work in progress	\$2,998,765
Less:	
(B) Short term plant in rate base	\$0
(C) Modernization - Long term plant replacing plant in rate base	\$2,998,765
(D) Construction Work in Progress not in rate base	\$0
(E) Capitalization Rate	11.46%
(F) Present value of (D) discounted for one period at capitalization rate	\$0
(G) Net operating income attributed to construction work in progress adjusted for 80% market penetration	\$0

COST APPROACH OBSOLESCENCE

(A)	Total Net Plant In Service	\$136,460,682
(B)	Required Rate of Return	11.46%
(C)	Prior 3 Year's Net Operating Income - Avg.	34,919,785
(D)	Required Net Operating Income (A)*(B)	\$15,634,657
(E)	Income Shortfall (D)-(C)	(\$19,285,128)
(F)	Capitalization Rate	11.46%
(G)	Indicated Obsolescence	(\$168,322,312)

Method 2

(A)	Projected Net Operating Income	35,000,000
(B)	Total Net Plant In Service	\$136,460,682
(C)	Rate of Return (A) / (B)	25.65%
(D)	Expected Rate of Return (Capitalization Rate)	11.46%
(E)	Percent Good (C)/(D)	223.86%
(F)	Percent Obsolescence Equals (100.00%) - (E)	-123.86%
(G)	Total Economic Obsolescence (B)*(F)	(\$169,022,433)

SAY (150,000,000)

Allocation of Capital Charge

Capital Charge - the annual return required on all corporate assets used in the production of the economic income associated with the subject intangible asset.

	Net Plant In Service 144,624,554	Cost of Capital 11.46%	=	Required Return \$ 16,570,014
Vertical Svces Revenue (VS NOI / co. exp ratio)		Total Operating Revenues		Percent of VS Revenue
	14,428,016	172,550,486		8.36%
Allocated Capital Charge on Supporting Assets				\$1,385,522
Estimated Vertical Services NOI				7,091,639
Vertical Services NOI Less Capital Charge				\$5,706,117

2010

DOCUMENT 9D

SAMPLE ELECTRIC COOP COMPANY

UNIT APPRAISAL

Unit #000

Appraiser

DATA YEAR: 2010

INCOME APPROACH

YEAR	NET OPERATING INCOME	NOI GROWTH	NET PLANT IN SERVICE	NPIS GROWTH	NOI/NPIS NOI - CURR YR NPIS - PRV YR
2004	4,625,201		81,787,622		
2005	5,661,681	0.2241	85,798,675	0.0490	0.0692
2006	4,748,314	-0.1613	92,154,509	0.0741	0.0553
2007	4,460,508	-0.0606	100,759,381	0.0934	0.0484
2008	4,928,287	0.1049	109,974,664	0.0915	0.0489
2009	4,458,440	-0.0953	115,898,957	0.0539	0.0405
MOST RECENT YEAR					4,458,440
THREE YEAR AVERAGE					4,615,745
FIVE YEAR AVERAGE					4,851,446
THREE YEAR WEIGHTED AVERAGE					4,615,400
FIVE YEAR WEIGHTED AVERAGE					4,703,012
FIVE YR. AVG. RETURN ON NPIS				0.0525	6,082,869
LIN. REGRESS. ON NOI		CORR. COEFF. =		(0.39)	4,183,493
LIN. REGRESS. ON NOI/NPIS		CORR. COEFF. =		(0.62)	4,261,525
PROJECTED TYPICAL NET OPERATING INCOME					3,700,000
NET INCOME ATTRIBUTABLE TO CWIP (SEE BELOW)					0
TOTAL NET INCOME TO CAPITALIZE					3,700,000
CAPITALIZATION RATE					0.1398
VALUE INDICATED BY INCOME APPROACH					26,460,653

INCOME ATTRIBUTABLE TO CONSTRUCTION WORK IN PROGRESS

CONSTRUCTION WORK IN PROGRESS			2009		0
DISCOUNTED AT:	0.1398	FOR	1	YEAR(S)	0
PROJECTED NET INCOME FROM CWIP					0

COST APPROACH

TOTAL UTILITY PLANT IN SERVICE (C1)	146,384,363
CONSTRUCTION WORK IN PROGRESS (C2)	0
TOTAL UTILITY PLANT	146,384,363
DEPRECIATION (C4)	30,485,407
NET UTILITY PLANT	115,898,957
MATERIALS & SUPPLIES (C21)	179,002
NET INVESTMENT	115,719,955
ECONOMIC OBSOLESCENCE (SEE BELOW)	89,821,691
COST APPROACH INDICATOR OF VALUE	25,898,263

CALCULATION OF ECONOMIC OBSOLESCENCE

HISTORICAL RATE OF RETURN (5 YEAR AVG.)	0.0525
CURRENT DESIRED RATE OF RETURN	0.1398
INDICATED FRACTION NON-OBSOLESCE	0.3753
MOST RECENT RATE OF RETURN	0.0405
CURRENT DESIRED RATE OF RETURN	0.1398
INDICATED FRACTION NON-OBSOLESCE	0.2899
PROJECTED RATE OF RETURN	0.0319
CURRENT DESIRED RATE OF RETURN	0.1398
INDICATED FRACTION NON-OBSOLESCE	0.2283
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCE	0.2250
FRACTION OBSOLETE	0.7750
ECONOMIC OBSOLESCENCE	89,821,691

CORRELATION

INCOME APPROACH INDICATOR OF VALUE	\$26,460,653
COST APPROACH INDICATOR OF VALUE	\$25,898,263
APPRAISER'S OPINION OF MARKET VALUE	\$26,000,000
MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE/ NET BOOK VALUE	0.2243

* ACKNOWLEDGEMENT OF NEW VALUE FOR AD VALOREM TAXATION *** *
THE ABOVE LISTED NEW VALUES ARE RECOMMENDED BY THE APPRAISER FOR THE DISTRICT AND ACCEPTED BY
THE AGENT/OWNER FOR THE TAXPAYER AS 2010 VALUES. THE AGENT/OWNER HEREBY WITHDRAWS
PROTEST AND WAIVES THE RIGHT TO FURTHER NOTIFICATION OF VALUES.

TO BE VALID THIS SIGN-OFF MUST BE EXECUTED AND RETURNED TO CAPITOL
BY MIDNIGHT PRIOR TO YOUR ARB HEARING.

DISTRICT	CAPITOL	TAXPAYER/AGENT	ARB
DATE	DATE	DATE	DATE

Capitol Appraisal Group, LLC

ALLOCATION

DISTRIBUTION PLANT

ORIGINAL COST OF DISTRIBUTION SYSTEM (E14E)	122,565,286
ORIGINAL COST OF LAND AND LAND RIGHTS (E1E)	123,409
ORIGINAL COST OF STRUCTURES AND IMPROVEMENTS (E2E)	916,416
ORIGINAL COST OF STATION EQUIPMENT (E3E)	11,720,471
DIST. PLANT EXCL. SUBSTATIONS AND LAND	109,804,991
MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE OF DIST. EXCL. SUBSTATIONS AND LAND	19,502,969

TYPE	MARKET VALUE	NO. UNITS		MKT VAL/UNIT
METERS	19,502,969	31,056	(R10L)	\$628
MI. OF LINE	19,502,969	4,217	(B6B+B7B)	\$4,625

TRANSMISSION PLANT

ORIGINAL COST OF TRANSMISSION SYSTEM (E33E)	11,818,671
ORIGINAL COST OF LAND & LAND RIGHTS (E26E)	16,336
ORIGINAL COST OF STRUCTURES AND IMPROVEMENTS (E27E)	170,820
ORIGINAL COST OF STATION EQUIPMENT (E28E)	4,458,909
TRANS. PLANT EXCL. SUBSTATIONS AND LAND	7,172,606
MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE OF TRANS. EXCL. SUBSTATIONS AND LAND	1,273,960
MILES OF TRANSMISSION LINE (B5B)	104
MARKET VALUE PER MILE OF LINE	\$12,281

SUBSTATIONS

ORIGINAL COST OF SUBSTATIONS - DIST.	12,636,887
ORIGINAL COST OF SUBSTATIONS - TRANS.	4,629,729
ORIGINAL COST OF SUBSTATIONS - TOTAL	17,266,616
MARKET VALUE/ ORIGINAL COST	0.1776
MARKET VALUE OF SUBSTATIONS	3,066,803
TOTAL SUBSTATION KVA CAPACITY	269,025
MARKET VALUE PER KVA	\$11

CAP RATE

COST OF EQUITY					
MODIFIED DCF - DIVIDEND YIELD	$K_e = (Div/P) + G$	0.1630			
DIVIDEN / PRICE = ((CASH PATRONAGE + REDEMPTIONS) / TOTAL PATRONAGE CAPITAL)		0.1571			
GROWTH RATE = [1 - (CASH PATRONAGE / NET INCOME)] * (NET INCOME / PATRONAGE CAPITAL)		-0.0570			
GROWTH RATE - GROWTH OF NPIS		0.0724			
GROWTH RATE - GROWTH OF NOI		0.0023			
CALCULATED GROWTH RATE		0.0059			
CASH PATRONAGE		7,000,090			
REDEMPTIONS		0			
TOTAL PATRONAGE CAPITAL		44,570,184			
NET INCOME		4,458,440			
MODIFIED DCF - EARNINGS	$K_e = (E/P) + G$	0.1059			
NET INCOME		4,458,440			
TOTAL PATRONAGE CAPITAL		44,570,184			
CALCULATED GROWTH RATE		0.0059			
BUILD UP METHOD		$K_e = R_f + R_p + \text{SIZE PREMIUM}$			
RISK FREE RATE (TREASURY)		0.1570			
EQUITY RISK PREMIUM (PRATT / WASATA)		0.0400			
SIZE PREMIUM (IBBITSONS)		0.0550			
		0.0620			
MODIFIED CAPM	$K_e = R_f + (b * ERP)$	0.1391			
RISK FREE RATE (TREASURY)		0.0400			
EQUITY RISK PREMIUM (PRATT / WASATA)		0.0550			
BETA (SEE BELOW)		1.8024			
BETA					
RETURN ON ASSETS		0.0525			
S & P AVERAGE RETURN ON ASSETS		0.0946			
CALCULATED BETA		1.8024			
AVERAGE COST OF EQUITY		0.1413			
OPINION OF COST OF EQUITY		0.1413			
COST OF DEBT					
ELECTRIC UTILITY BOND		0.0818			
COST OF DEBT		0.0818			
CAPITAL STRUCTURE					
TOTAL DEBT		61,388,492			
TOTAL ASSETS		133,029,617			
PERCENT DEBT		0.4615			
PERCENT EQUITY		0.5385			
WEIGHTED COST OF CAPITAL					
	CAPITAL STRUCTURE	COST	WEIGHTED COST	FLOTATION COST	ADJ WEIGHTED COST
EQUITY	0.5385	0.1413	0.0761	0.0360	0.0789
DEBT	0.4615	0.0818	0.0377	0.0150	0.0383
					0.1173

**2010
DOCUMENT 9E
SAMPLE TELEPHONE COOP COMPANY**

APPRAISAL

UNIT # 000

Appraiser

CAPITOL APPRAISAL GROUP

DATA YEAR: 2010

INCOME APPROACH

NOI PROJECTION NO. 1		
NET OPERATING REVENUES (B7B)	2009	\$3,585,327
NET OPERATING REVENUES (B7B)	2008	\$3,606,611
NET OPERATING REVENUES (B7B)	2007	\$3,263,862
PROJECTED NET OPERATING REVENUES		
		\$3,485,267
TYPICAL INVESTOR-OWNED TELEPHONE CO. EXPENSE RATIO		0.8100
PROJECTED EXPENSES		\$2,823,066
PROJECTED NOI BASED ON TYPICAL INVESTOR-OWNED EXP. RATIO		\$662,201

NOI PROJECTION NO. 2		
NET PLANT IN SERVICE	2010	\$7,324,320
TYPICAL INVESTOR-OWNED TEL. CO. RETURN RATE ON NPIS		0.1010
PROJECTED NOI BASED ON INVESTOR-OWNED RETURN RATE		\$739,756

NOI PROJECTION NO. 3		
NET OPERATING REVENUES (B7B)	2010	\$3,585,327
TOTAL OPERATION & MAINTENANCE EXPENSE (B14B)		\$2,873,408
TOTAL OPERATING TAXES (B20B)		\$74,428
NET OPERATING INCOME BEFORE FED. INCOME TAXES	2010	\$637,491
NET OPERATING INCOME BEFORE FED. INCOME TAXES	2009	\$861,211
NET OPERATING INCOME BEFORE FED. INCOME TAXES	2008	\$1,848,531
PROJECTED NOI BEFORE FEDERAL INCOME TAXES		\$1,354,871
PROJECTED EFFECTIVE FEDERAL INCOME TAX RATE		0.00
PROJECTED NOI AFTER FEDERAL INCOME TAXES		\$1,354,871

INCOME PROJECTIONS

NOI PROJECTION NO. 1	\$739,756
NOI PROJECTION NO. 2	\$739,756
NOI PROJECTION NO. 3	\$1,354,871
APPRAISER'S OPINION	\$900,000
INCOME ATTRIBUTABLE TO CWIP (SEE BELOW)	\$0
TOTAL INCOME TO CAPITALIZE	\$900,000
CAPITALIZATION RATE	0.1322
INCOME APPROACH INDICATOR OF VALUE	\$6,807,893

INCOME ATTRIBUTABLE TO CONSTRUCTION WORK IN PROGRESS

CONSTRUCTION WORK IN PROGRESS	2010	\$0
DISCOUNTED AT: 0.1322 FOR 1 YEAR(S)		\$0
TYPICAL INVESTOR-OWNED ELECTRIC CO. RETURN RATE ON NPIS		0.1010
PROJECTED NET INCOME FROM CWIP		\$0

CAPITOL APPRAISAL GROUP

COST APPROACH

TELECOMMUNICATIONS PLANT-IN-SERVICE (A20)	\$12,539,923
PROPERTY HELD FOR FUTURE USE (A21)	\$0
CONSTRUCTION WORK IN PROGRESS (A22)	\$0
TOTAL UTILITY PLANT	\$12,539,923
DEPRECIATION (A24)	\$5,215,603
NET UTILITY PLANT	\$7,324,320
MATERIALS AND SUPPLIES (A7+A8)	\$200,601
NET INVESTMENT	\$7,524,921
PERCENT NON-OBSOLETE (SEE BELOW)	0.9000
COST APPROACH INDICATOR OF VALUE	\$6,772,429

CALCULATION OF ECONOMIC OBSOLESCENCE

RETURN RATE BASED ON NOI PROJECTION NO. 1	0.1010
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	0.7640
RETURN RATE BASED ON NOI PROJECTION NO. 2	0.1010
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	0.7640
RETURN RATE BASED ON NOI PROJECTION NO. 3	0.1850
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	1.3993
RETURN RATE BASED ON PROJECTED NOI	0.1229
CURRENT DESIRED RATE OF RETURN	0.1322
INDICATED FRACTION NON-OBSOLETE	0.9295
CO-OP'S NET PLANT / ORIG COST	0.5841
TYPICAL I.O.U. NET PLANT / ORIG COST	0.6230
CO-OP'S IOU-ADJUSTED NET PLANT / ORIG COST	0.9375
TYPICAL I.O.U. NET PLANT / MARKET VALUE	0.8250
CO-OP'S I.O.U.-ADJUSTED FRACTION NON-OBSOLETE	0.7735
TYPICAL INVESTOR-OWNED ELECTRIC PERCENT NON-OBSOLETE	0.8250
COMPTROLLER'S PERCENT NON-OBSOLETE PRIOR YEAR	1.1375
APPRAISER'S OPINION OF FRACTION NON-OBSOLESCE	0.9000

CAPITOL APPRAISAL GROUP

CORRELATION

INCOME APPROACH INDICATOR OF VALUE	\$6,807,893
COST APPROACH INDICATOR OF VALUE	\$6,772,429
APPRAISER'S OPINION OF MARKET VALUE	\$6,800,000
MARKET VALUE/ ORIGINAL COST	0.5337
MARKET VALUE/ NET BOOK VALUE	0.9037

CAPITOL APPRAISAL GROUP

ALLOCATION

CENTRAL OFFICE EQUIPMENT

ORIGINAL COST OF CENTRAL OFFICE SWITCHING (D2E)	\$1,1
93,274	
ORIG. COST OF OPERATOR SYSTEMS (D3E)	
\$0	
ORIG. COST OF CENTRAL OFFICE TRANSMISSION (D4E)	\$
683,810	
ORIGINAL COST OF CENTRAL OFFICE EQUIPMENT	\$1,8
77,084	
ALLOCATED CWIP	
\$0	
TOTAL ORIGINAL COST	\$1,8
77,084	
MARKET VALUE/ ORIGINAL COST	
0.5337	
MARKET VALUE OF CENTRAL OFFICE EQUIPMENT	\$1,0
01,856	
NO. CENTRAL OFFICE EQUIPMENT ACCESS LINES (GET+GFT)	
2,907	
VALUE PER COE ACCESS LINE	
\$345	

MAIN STATIONS

ORIGINAL COST OF INFOR ORIG/TERM ASSETS (D5E)	
\$0	
ORIG. COST OF CABLE & WIRE FACILITIES (D6E)	\$10,3
80,881	
ORIGINAL COST OF OTHER TANGIBLE ASSETS (D7E)	
\$0	
TOTAL OUTSIDE PLANT ORIGINAL COST	\$10,3
80,881	
ALLOCATED CWIP	
\$0	
TOTAL ORIGINAL COST	\$10,3
80,881	
MARKET VALUE/ ORIGINAL COST	
0.5337	
MARKET VALUE OF OUTSIDE PLANT	\$5,5
40,588	
TOTAL NO. MAIN STATIONS (C4C)	
2,907	
MARKET VALUE PER MAIN STATION	
\$1,906	

Document 9F

V A L U A T I O N O P I N I O N

2010 PRELIMINARY REPORT

OF

FACILITIES AT

ABC LARGE INDUSTRIY COMPANY

V A L U A T I O N S U M M A R Y

REALTY IMPROVEMENTS	17,389,600
PERSONAL PROPERTY	17,623,800
	=====
TOTAL PRESENT WORTH, EXCLUDING LAND	35,013,400

CERTIFICATION: THIS APPRAISAL IS INTENDED TO REFLECT THE FAIR MARKET VALUE OF THE REALTY IMPROVEMENTS AND PERSONAL PROPERTY FOR SUBJECT PROPERTY, EXCLUDING LAND, AS OF JANUARY 1, 2010. THIS OPINION IS TO BE USED BY OUR CLIENT, TEXAS APPRAISAL DISTRICT, ITS CHIEF APPRAISER AND A.R.B., IN THEIR CONSIDERATIONS OF MARKET VALUE FOR PURPOSES OF AD VALOREM TAXATION. OWNERSHIP AND SITUS ARE NOT ASSURED.

APPRAISED BY:

APPRAISER, ENGR.
CAPITOL APPRAISAL GROUP, LLC

PRINTED: 10/08/10 12:04:10

ABC LARGE INDUSTRIY COMPANY
2010 PRELIMINARY REPORT

REALTY IMPROVEMENTS VALUATION SUMMARY

CATEGORY	REPLACEMENT COST	VALUATION FACTOR	PRESENT WORTH
1. PROCESS GROUP	49,590,000	.194	9,598,100
2. UTILITIES	19,340,100	.183	3,539,500
3. RECEIVING, SHIPPING, AND STORAGE	6,942,600	.182	1,261,400
4. SERVICE FACILITIES.	11,681,200	.184	2,144,400
5. GENERAL BUILDINGS	4,408,000	.192	846,200
6. OFF SITE FACILITIES			
7. RESEARCH AND DEVELOPMENT			
	-----		-----
SUB-TOTAL	91,961,900		17,389,600
8. CONSTR. IN PROGRESS			
9. OUT OF SERVICE	22,040,000	.000	
10. NEW UNITS			
	-----		-----
SUB-TOTAL	22,040,000		
	=====		=====
IMPROVEMENTS TOTAL	114,001,900		17,389,600

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ABC LARGE INDUSTRIY COMPANY
2010 PRELIMINARY REPORT

PERSONAL PROPERTY VALUATION SUMMARY

CATEGORY	REPLACEMENT COST	VALUATION FACTOR	PRESENT WORTH
1. AUTOS & TRUCKS	2,360,000	.430	1,014,800
2. FF&E	250,000	.485	121,300
3. COMPUTERS	150,000	.143	21,500
4. SUPPLIES & PARTS	1,026,000	.750	769,500
5. MOB MACH/TOOLS	327,800	.600	196,700
6. INVENTORY	15,500,000	1.000	15,500,000
	=====		=====
PERSONAL PROPERTY	19,613,800		17,623,800

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ABC LARGE INDUSTRIY COMPANY
2010 PRELIMINARY REPORT

THE OPERABLE FACILITY HAS A SERVICE LIFE OF 27.8 YEARS
AND THE DOLLAR AVERAGE REMAINING LIFE IS 1.1 YEARS THE
ESTIMATED INTEREST RATE FOR AN INVESTMENT IN THIS TYPE OF
PLANT IS 8.6%. NORMALLY, A PLANT IN THIS RANGE OF INVEST-
MENT WOULD BE LOCATED ON A SITE VALUED AT \$ 8,110,000.

VALUATION SUMMARY

TYPE VALUE	VALUE	CONSIDERATION
REPLACEMENT	114,001,900	
PHYSICAL	39,900,600	74,101,300
FUNCTIONAL	21,733,500	18,167,100
LOC & EXT OBSO	17,389,600	4,343,900

THE PERSONAL PROPERTY INDEXES FOR THIS PLANT ARE:

CLASSIFICATION	I	B	F
1. AUTOS & TRUCKS	2.3600	1,000.0000	.4300
2. FF&E	.2500	1,000.0000	.4850
3. COMPUTERS	.1500	1,000.0000	.1430
4. SUPPLIES & PARTS	1.2000	.7500	.7500
5. MOB MACH/TOOLS	1.1500	.2500	.6000
6. INVENTORY	15.5000	1,000.0000	1.0000
PROCESS UNITS	20.0000	20.0000	.0000
OVERALL PLANT FACTORS 123-999		1.0000	1.1020
			.8000

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DOCUMENT 9G

OIL LSE Sample #1-Smaller

MAP111
10/06/10 13.55

CAPITOL APPRAISAL GROUP, INC.
DETAILED MINERAL APPRAISAL
INCOME APPROACH: DNCF TECHNIQUE

PAGE 1

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01
FIELD (RES): 99999 999 COUNTY: 777
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3
LEASE NAME: A E SMITH COMMENT: SAMPLE OIL LSE #1-SML MODIFICATION USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 41/10/01

-----RAILROAD COMMISSION PRODUCTION-----						
DATE	OIL (BBL)	GAS (MCF)	WATER(E)-B/D	%WC-WT	FLOW	LIFT WELLS
PRIOR	1123821		162			
1999	16133				6	6
2000	14603				6	6
2001	13668				6	6
2002	10161				6	6
2003	9016				5	5
2004	7720				5	5
2005	8922				5	5
2006	9071				5	5
2007	11892				5	5
2008	13024				5	5
JAN	949				5	5
FEB	673				5	5
MAR	1115				5	5
APR	1063				5	5
MAY	1003				5	5
JUN	936				5	5
JUL	841				6	6
AUG	577				6	6
SEP	791				6	6
OCT	924				7	7
NOV	855				7	7
DEC	1400				7	7
2009	11127				7	7
TOTAL	1249158		162			

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
ANNUAL OIL PRODUCTION: 11127 OIL RESERVE LIMIT:
ANNUAL GAS PRODUCTION: GAS RESERVE LIMIT:
NUMBER OF PRODUCING WELLS: 7 NUMBER OF INJECTION WELLS: 1

DECLINE PARAMETERS:

----CALCULATED PARAMETERS----			----APPRaiser PARAMETERS----			
	OIL	GAS	P	START-RATE	DECL-% N-FACT	MOS
DATE:	07/07/01	07/07/01	O	45.0	25.00	12
DAILY-A:	30.5		B		15.00	
DECL-%:	35.53	35.53				
N-FACT:						

SECONDARY PRODUCT RATIO: SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 Nominator NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: A E SMITH COMMENT: SAMPLE OIL LSE #1-SML MODIFICATION USER: CHAR

ECONOMIC PARAMETERS:
OIL PRICE: 94.09 PRODUCING WELLS: 7 BASE DISCOUNT RATE: 1.1300
OIL GRAVITY: 28.0 INJECTION WELLS: 1 AD VALOREM TAX BURDEN: 2.00
OIL GRAVITY ADJUSTMENT: OPRATING COST (\$/WELL): 6378 DEPTH: 2600 ECONOMIC LIFE: 19
GAS PRICE: 10.04 *** SECTION 22.27 RESTRICTION *** PAYOUT (7/8-1/8): 4.7 4.8
GAS PRICE PARITY: 1.00 EQUIPMENT COST (\$/WELL): 8269 R/P RATIO (OIL-GAS): 6.0

CASH FLOW ANALYSIS:

START DATE	---PRODUCTION---	---PRODUCT PRICES---	-7/8 REVENUE(M\$)-		---OP COST(M\$)---		---UNDISC INCOME---	---DISCOUNTED INCOME---	
DATE	OIL (BBL) GAS (MCF)	OIL NET GAS NET	OIL GAS	DIRECT CAP EXP	7/8(M\$) 1/8(M\$)	7/8(\$)	1/8(\$)	1/8(\$)	
10/01/01	14275	35.19 33.57 6.06 5.61	419	45	375	60	349376	55858	
11/01/01	11372	40.69 38.82 6.61 6.11	386	42	344	55	278830	44746	
12/01/01	9669	50.59 48.26 7.49 6.93	408	42	366	58	257988	41128	
13/01/01	8239	65.98 62.94 8.26 7.64	454	45	409	65	250900	39744	
14/01/01	6984	74.78 71.34 9.36 8.66	436	46	390	62	207980	33205	
15/01/01	5938	83.57 79.73 10.46 9.68	414	47	367	59	170153	27437	
16/01/01	5045	92.37 88.12 10.94 10.12	389	49	340	56	137204	22403	
17/01/01	4301	101.61 96.94 11.24 10.40	365	50	315	52	110322	18270	
18/01/01	3645	105.67 100.81 11.53 10.67	322	52	270	46	82274	14002	
19/01/01	3097	108.84 103.83 11.81 10.92	281	53	228	40	60487	10655	
20/01/01	2635	111.56 106.43 12.09 11.18	245	55	191	35	43937	8080	
21/01/01	2245	113.79 108.56 12.36 11.43	213	56	157	30	31436	6106	
22/01/01	1902	114.93 109.64 12.62 11.67	182	58	124	26	21675	4543	
23/01/01	1617	116.08 110.74 12.87 11.90	157	60	97	22	14676	3392	
24/01/01	1374	117.24 111.85 13.11 12.13	134	62	73	19	9598	2532	
25/01/01	1173	118.41 112.96 13.34 12.34	116	63	52	17	6010	1898	
26/01/01	993	119.59 114.09 13.56 12.54	99	65	34	14	3361	1411	
27/01/01	844	120.79 115.23 13.77 12.74	85	67	18	12	1537	1053	
28/01/01	718	122.00 116.39 13.97 12.92	73	69	4	10	282	787	
86066		<===== SUB-TOTAL =====>	5180	1027	4153	740	2038026	337250	
86066		<===== TOTAL =====>	5180	1027	4153	740	2038026	337250	
				EQUIPMENT ADJUSTMENT:	58		3793		
				VALUE AT BASE DISCOUNT RATE:			2041819	337250	
				VALUE AT MAP ADJUSTMENT:	94/90		1919309	317015	
		IN PLACE DAILY AVG		SECTION 23.175 VALUE:			1764393	288734	
7/8 \$/BBL:	23.43	44810		TOTAL APPRAISED VALUE:			1764393	288734	
7/8 \$/MCF:				AVERAGE ANNUAL ROR:	20	20			
7/8 \$/BOE:	23.43	44810							

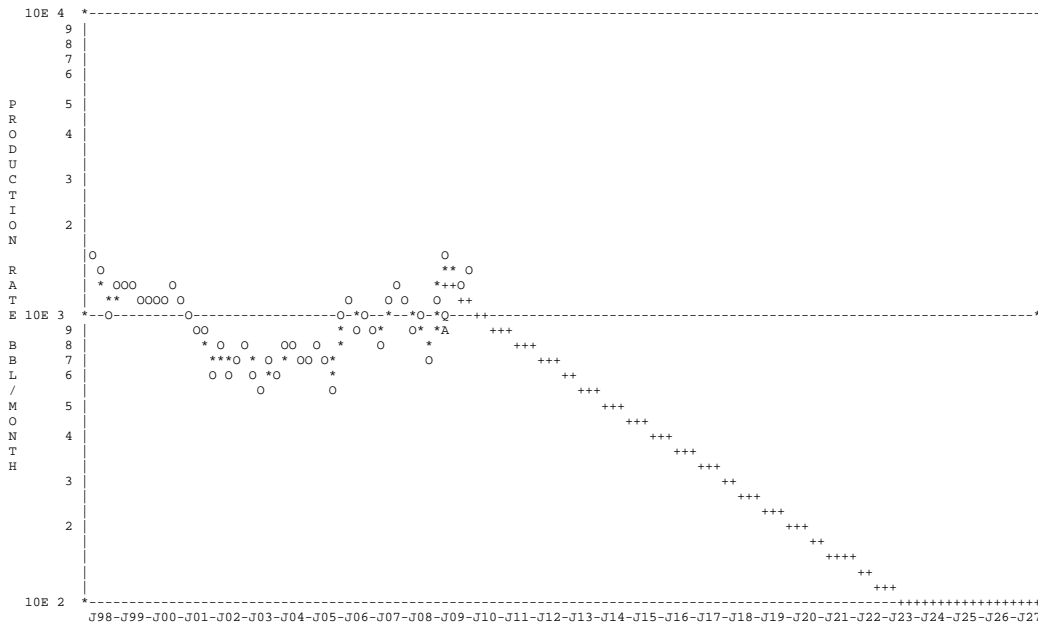
DIVISION ORDER TOTAL WORKING INTEREST & VALUE: .825000 1648900
*** SECTION 22.27 RESTRICTION ***

JURISDICTIONS: SAMPLE COUNTY 1.0000
SAMPLE ISD 1.0000

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: A E SMITH COMMENT: SAMPLE OIL LSE #1-SML MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --
PRIOR	1123821	162		MON OIL(BBL) GAS(MCF) WLS	DATE:	07/07/01	07/07/01	MON OIL(BBL) GAS(MCF) WLS
1999	16133		6	JAN 949	DAILY-A:	30.5		JAN 1544
2000	14603		6	FEB 673	DECL-%:	35.53	35.53	FEB 1484
2001	13668		6	MAR 1115	N-FACT:			MAR 1478
2002	10161		6	APR 1063	----- APPRAISER DECLINE -----			APR 1296
2003	9016		5	MAY 1003	P START-RATE DECL-% N-FACT MOS			MAY 1326
2004	7720		5	JUN 936	O	45.0	25.00	JUN 1227
2005	8922		5	JUL 841	B	15.00		JUL 1267
2006	9071		5	AUG 577				AUG 1268
2007	11892		5	SEP 791				SEP 1352
2008	13024		5	OCT 924				OCT 1440
2009	11127		7	NOV 855				NOV
2010	13682			DEC 1400				DEC



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777011 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01
FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 Nominator NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: A E SMITH COMMENT: SAMPLE OIL LSE #1-SML MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --
PRIOR	1123821	162		MON OIL(BBL) GAS(MCF) WLS	DATE:	07/07/01	07/07/01	MON OIL(BBL) GAS(MCF) WLS
1999	16133		6	JAN 949	DAILY-A:	30.5		JAN 1544
2000	14603		6	FEB 673	DECL-%:	35.53	35.53	FEB 1484
2001	13668		6	MAR 1115	N-FACT:			MAR 1478
2002	10161		6	APR 1063	----- APPRAISER DECLINE -----			APR 1296
2003	9016		5	MAY 1003	P START-RATE DECL-% N-FACT MOS			MAY 1326
2004	7720		5	JUN 936	O 45.0 25.00 12			JUN 1227
2005	8922		5	JUL 841	B 15.00			JUL 1267
2006	9071		5	AUG 577				AUG 1268
2007	11892		5	SEP 791				SEP 1352
2008	13024		5	OCT 924				OCT 1440
2009	11127		7	NOV 855				NOV
2010	13682			DEC 1400				DEC



OIL LSE Sample #2-Larger

MAP111
10/06/10 13.55

CAPITOL APPRAISAL GROUP, INC.
DETAILED MINERAL APPRAISAL

PAGE 1

INCOME APPROACH: DNCF TECHNIQUE

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS

OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION

DATE: IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION

TIME: LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION

USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 48/06/01

-----RAILROAD COMMISSION PRODUCTION-----							
DATE	OIL (BBL)	GAS (MCF)	WATER(E)-B/D	%WC-WT	FLOW	LIFT	WELLS
PRIOR	16008540	3803197					
1999	46797	24076	94965	67	1	4	5
2000	32629	12793	77798	70	1	5	6
2001	31256	13091	33968	52	1	5	6
2002	28777	12535	31046	52	1	5	6
2003	26339	12354	24472	48	1	5	6
2004	27390	13510	31046	53	1	5	6
2005	28852	13754	33238	54	1	5	6
2006	29559	12400	23741	45	1	5	6
2007	20790	11571	1461	7	1	5	6
2008	22477	11550	2557	10	1	5	6
JAN	1694	869			1	5	6
FEB	1541	861			1	5	6
MAR	1566	809			1	5	6
APR	1504	931			1	5	6
MAY	2439	1565			1	5	6
JUN	1875	1169	3	1	1	5	6
JUL	1815	972	8	1	1	5	6
AUG	1932	1214			1	5	6
SEP	1999	740	69	2	1	5	6
OCT	2133	668	13	1	1	5	6
NOV	2446	1210			1	5	6
DEC	3162	1751			1	5	6
2009	24106	12759	33968	58	1	5	6
TOTAL	16327512	3953590					

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
 ANNUAL OIL PRODUCTION: 24106 OIL RESERVE LIMIT:
 ANNUAL GAS PRODUCTION: 12759 GAS RESERVE LIMIT:
 NUMBER OF PRODUCING WELLS: 6 NUMBER OF INJECTION WELLS:

DECLINE PARAMETERS:

----CALCULATED PARAMETERS----			----APPRAISER PARAMETERS----			
	OIL	GAS	P	START-RATE	DECL-% N-FACT	MOS
DATE:	98/01/01	98/01/01	O	75.0	6.00	
DAILY-A:	66.0	34.9				
DECL-%:	6.06	6.06				
N-FACT:						

SECONDARY PRODUCT RATIO: 529 SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION USER: CHAR

ECONOMIC PARAMETERS: PRODUCING WELLS: 6 BASE DISCOUNT RATE: 1.1300
OIL PRICE: 94.09 INJECTION WELLS: AD VALOREM TAX BURDEN: 2.00
OIL GRAVITY: 43.0 DEPTH: 8545 ECONOMIC LIFE: 42
OIL GRAVITY ADJUSTMENT: OPERATING COST (\$/WELL): 15076 P-TO-I (7/8-1/8): 8.0 7.8
GAS PRICE: 10.04 *** SECTION 22.27 RESTRICTION *** PAYOUT (7/8-1/8): 5.8 5.8
GAS PRICE PARITY: 1.00 EQUIPMENT COST (\$/WELL): 14095 R/P RATIO (OIL-GAS): 15.4 15.3

CASH FLOW ANALYSIS:

START DATE OIL (BBL) GAS (MCF) OIL NET GAS NET -7/8 REVENUE (M\$) OP COST (M\$) UNDISC INCOME 7/8 (M\$) DISCOUNTED INCOME 7/8 (\$)

314291 145507 <===== SUB-TOTAL =====> 22934 1228 2226 21937 3452 7353700 1145293
95511 43638 <===== REMAINING =====> 10773 553 4554 6772 1618 1966337 38698
409802 189145 <===== TOTAL =====> 33707 1782 6780 28709 5070 7550337 1183991

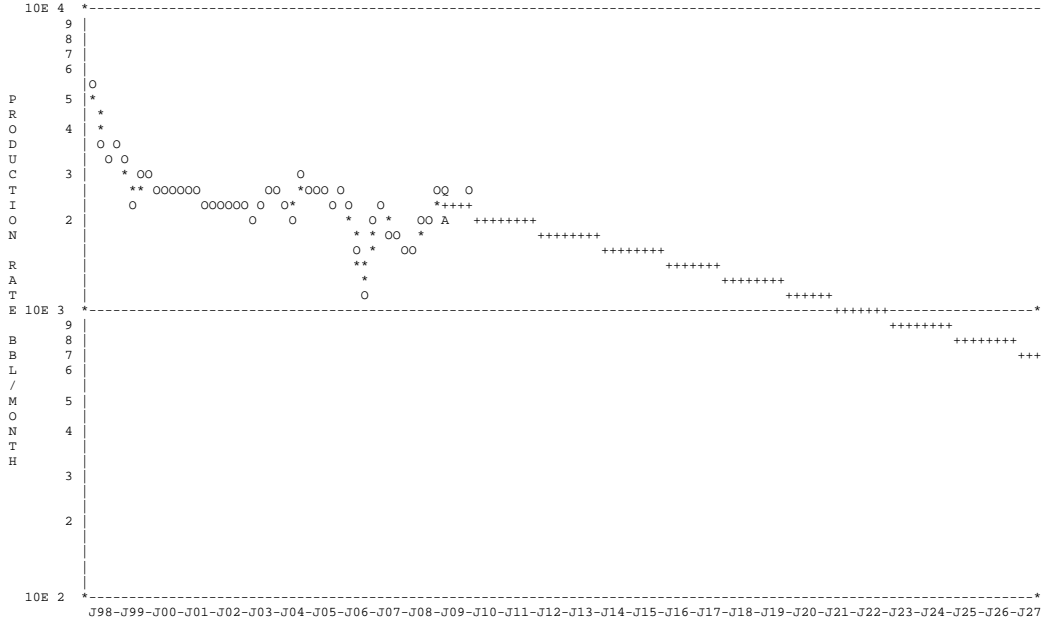
EQUIPMENT ADJUSTMENT: 85
VALUE AT BASE DISCOUNT RATE: 7550560 1183991
VALUE AT MAP ADJUSTMENT: 00/00 7550560 1183991
SECTION 23.175 VALUE: 6026555 940986
TOTAL APPRAISED VALUE: 6026555 940986
AVERAGE ANNUAL ROR: 20 20

DIVISION ORDER TOTAL WORKING INTEREST & VALUE: .825000 5650160
*** SECTION 22.27 RESTRICTION ***

JURISDICTIONS: SAMPLE COUNTY 1.0000
SAMPLE ISD 1.0000

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01
FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION USER: CHAR

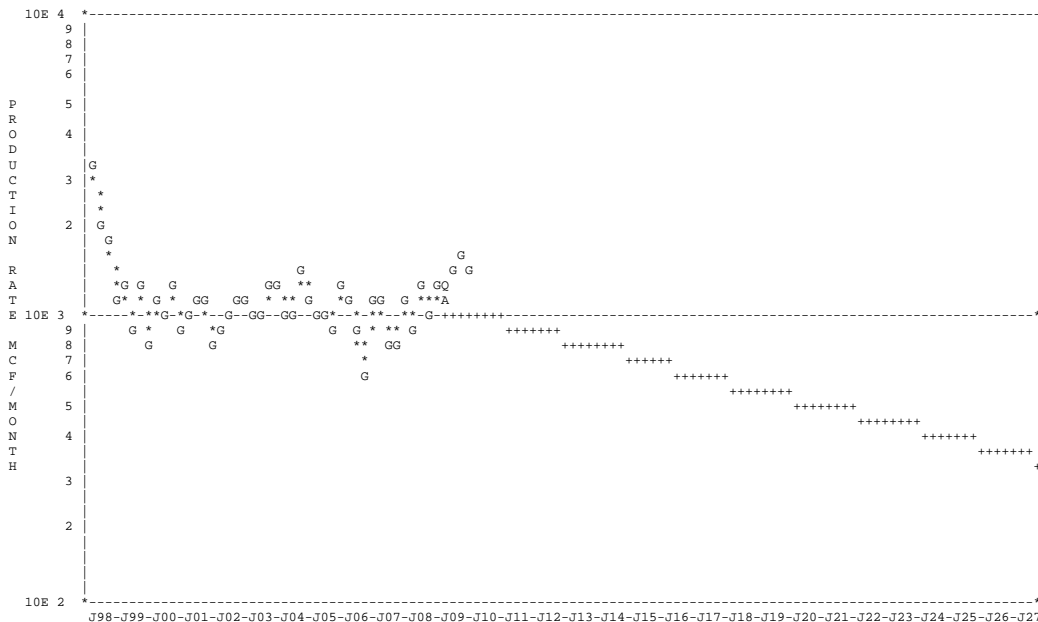
DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --
PRIOR	16008540	3803197		MON OIL(BBL) GAS(MCF) WLS	DATE:	98/01/01	98/01/01	MON OIL(BBL) GAS(MCF) WLS
1999	46797	24076	5	JAN 1694	DAILY-A:	66.0	34.9	JAN 2829 1655 6
2000	32629	12793	6	FEB 1541	DECL-%:	6.06	6.06	FEB 2189 1328 6
2001	31256	13091	6	MAR 1566	N-FACT:			MAR 2309 787 6
2002	28777	12535	6	APR 1504	----- APPRAISER DECLINE -----			APR 2623 1438 6
2003	26339	12354	6	MAY 2439	P START-RATE DECL-% N-FACT MOS			MAY 2364 1359 6
2004	27390	13510	6	JUN 1875	O 75.0 6.00			JUN 2114 1269 6
2005	28852	13754	6	JUL 1815				JUL 2271 1723 6
2006	29559	12400	6	AUG 1932				AUG 2336 1439 6
2007	20790	11571	6	SEP 1999				SEP 2120 1495 6
2008	22477	11550	6	OCT 2133				OCT 2539 1403 6
2009	24106	12759	6	NOV 2446				NOV
2010	23694	13896		DEC 3162				DEC



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777002 WELL: PRIMARY PRODUCT: OIL APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: HUGH KELKER COMMENT: OIL SAMPLE #2 --LG MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --			CALC DECLINE: OIL GAS			-- 2010 MONTHLY PRODUCTION --				
PRIOR	16008540	3803197		MON	OIL(BBL)	GAS(MCF)	WLS	DATE:	98/01/01	98/01/01	MON	OIL(BBL)	GAS(MCF)	WLS
1999	46797	24076	5	JAN	1694	869	6	DAILY-A:	66.0	34.9	JAN	2829	1655	6
2000	32629	12793	6	FEB	1541	861	6	DECL- $\frac{1}{2}$:	6.06	6.06	FEB	2189	1328	6
2001	31256	13091	6	MAR	1566	809	6	N-FACT:			MAR	2309	787	6
2002	28777	12535	6	APR	1504	931	6	----- APPRAISER DECLINE -----			APR	2623	1438	6
2003	26339	12354	6	MAY	2439	1565	6	P START-RATE DECL- $\frac{1}{2}$ N-FACT MOS			MAY	2364	1359	6
2004	27390	13510	6	JUN	1875	1169	6	O	75.0	6.00	JUN	2114	1269	6
2005	28852	13754	6	JUL	1815	972	6				JUL	2271	1723	6
2006	29559	12400	6	AUG	1932	1214	6				AUG	2336	1439	6
2007	20790	11571	6	SEP	1999	740	6				SEP	2120	1495	6
2008	22477	11550	6	OCT	2133	668	6				OCT	2539	1403	6
2009	24106	12759	6	NOV	2446	1210	6				NOV			
2010	23694	13896		DEC	3162	1751	6				DEC			



DOCUMENT 9I

GAS LSE Sample #1-Smaller

MAP111
10/06/10 13.53

CAPITOL APPRAISAL GROUP, INC.
DETAILED MINERAL APPRAISAL
INCOME APPROACH: DNCF TECHNIQUE

PAGE 1

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS

APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3
LEASE NAME: LAZY LINDA

COUNTY: 777
COMMENT: SAMPLE GAS LSE-SML

MODIFICATION DATE:
MODIFICATION TIME:
MODIFICATION USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 86/12/01

-----RAILROAD COMMISSION PRODUCTION-----							
DATE	OIL (BBL)	GAS (MCF)	WATER (B/D)	FTP	FLOW	LIFT	WELLS
PRIOR	98202	14147992					
1999	1476	378102	12	900	1		1
2000	6717	1139201	30	950	1		1
2001	6618	1218292	30	550	1		1
2002	6678	1138126	40	380	1		1
2003	5675	935663	29	252	1		1
2004	4269	795303	51	240	1		1
2005	2876	601597	40	250	1		1
2006	2231	598200	56	100	1		1
2007	1349	477221		140	1		1
2008	1223	472678	37	80	1		1
JAN	22	29304			1		1
FEB	197	36798			1		1
MAR	156	38188			1		1
APR	292	39689			1		1
MAY	84	40934			1		1
JUN	167	36969			1		1
JUL	162	42031			1		1
AUG	134	29926			1		1
SEP	90	10870			1		1
OCT							
NOV	63	12018	13	60	1		1
DEC	228	47049			1		1
2009	1595	363776	13	60	1		1
TOTAL	138909	22266151					

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
ANNUAL OIL PRODUCTION: 1595 OIL RESERVE LIMIT:
ANNUAL GAS PRODUCTION: 363776 GAS RESERVE LIMIT: 1750000
NUMBER OF PRODUCING WELLS: 1 NUMBER OF INJECTION WELLS:

DECLINE PARAMETERS:

----CALCULATED PARAMETERS----				----APPRAISER PARAMETERS----			
	OIL	GAS	P	START-RATE	DECL-%	N-FACT	MOS
DATE:	00/01/01	00/01/01	G	1250.0	15.00		
DAILY-A:	4.8	1086.5					
DECL-%:	14.07	14.07					
N-FACT:							

SECONDARY PRODUCT RATIO: 4 SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: LAZY LINDA COMMENT: SAMPLE GAS LSE-SML MODIFICATION USER: CHAR

ECONOMIC PARAMETERS:		PRODUCING WELLS:	1	BASE DISCOUNT RATE:	1.1300
OIL PRICE:	106.29	INJECTION WELLS:		AD VALOREM TAX BURDEN:	2.00
OIL GRAVITY:	51.0	DEPTH:	11000	ECONOMIC LIFE:	7
OIL GRAVITY ADJUSTMENT:		OPERATING COST (\$/WELL):	20285	P-TO-I (7/8-1/8):	3.5 3.5
GAS PRICE:	10.00	*** SECTION 22.27 RESTRICTION ***		PAYOUT (7/8-1/8):	3.8 3.8
GAS PRICE PARITY:	1.00	EQUIPMENT COST (\$/WELL):	7882	R/P RATIO (OIL-GAS):	4.7 4.5

CASH FLOW ANALYSIS:

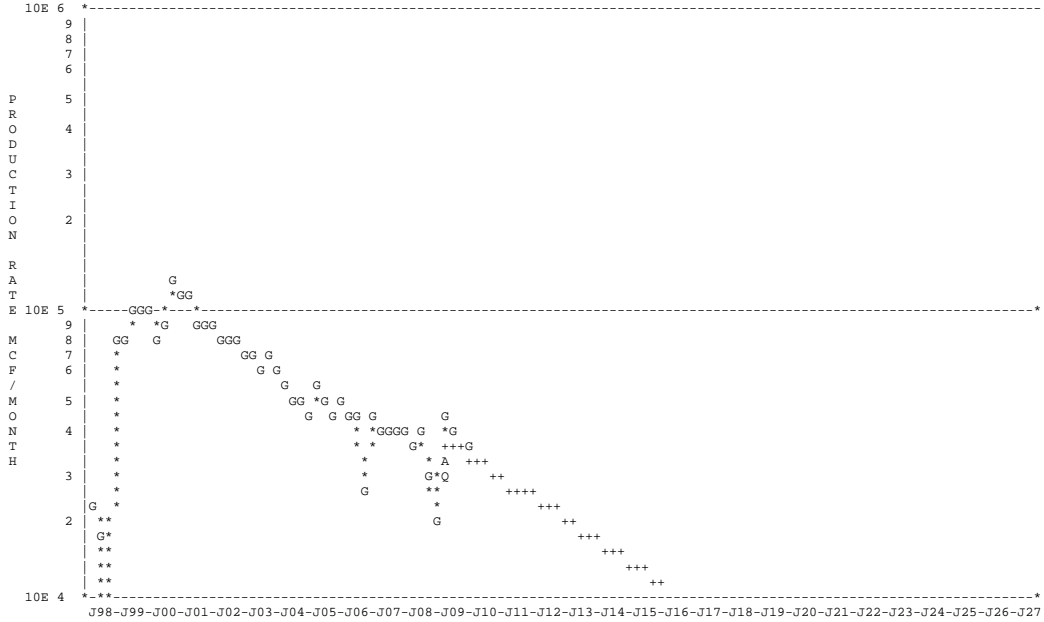
START DATE	---PRODUCTION---		-----PRODUCT PRICES-----				-7/8 REVENUE(M\$)-		---OP COST(M\$)---		--UNDISC INCOME--		--DISCOUNTED INCOME--	
	OIL (BBL)	GAS (MCF)	OIL	NET	GAS	NET	OIL	GAS	DIRECT	CAP EXP	7/8(M\$)	1/8(M\$)	7/8(\$)	1/8(\$)
10/01/01	1625	421127	39.75	37.92	6.04	5.59	54	2060	20		2093	302	1952171	281584
11/01/01	1396	357998	45.97	43.86	6.59	6.10	54	1911	19		1945	281	1577245	227553
12/01/01	1200	304332	57.16	54.53	7.47	6.91	57	1840	19		1878	271	1324229	191118
13/01/01	1035	259364	74.55	71.12	8.24	7.62	64	1729	20		1773	256	1087387	157113
14/01/01	888	219831	84.49	80.60	9.34	8.64	63	1662	21		1704	246	908352	131352
15/01/01	762	186877	94.43	90.09	10.44	9.66	60	1580	21		1618	234	750219	108596
16/01/01	656	158864	104.37	99.57	10.92	10.10	57	1404	22		1439	209	580130	84150

7562	1908393	<===== SUB-TOTAL =====>	409	12185	143	12451	1799	8179733	1181466
7562	1908393	<===== TOTAL =====>	409	12185	143	12451	1799	8179733	1181466
			EQUIPMENT ADJUSTMENT:			8		2763	
			VALUE AT BASE DISCOUNT RATE:					8182496	1181466
			VALUE AT MAP ADJUSTMENT:		90/90			7364247	1063319
		IN PLACE DAILY AVG	SECTION 23.175 VALUE:					7424498	1071908
7/8 \$/BBL:	34.69	54658	TOTAL APPRAISED VALUE:					7364247	1063319
7/8 \$/MCF:	4.27	6523	AVERAGE ANNUAL ROR:		20	20			
7/8 \$/BOE:	28.37	43340	DIVISION ORDER TOTAL WORKING INTEREST & VALUE:		.825000	6938920			

JURISDICTIONS: SAMPLE COUNTY 1.0000
SAMPLE ISD 1.0000
*** SECTION 22.27 RESTRICTION ***

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01
FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: LAZY LINDA COMMENT: SAMPLE GAS LSE-SML MODIFICATION USER: CHAR

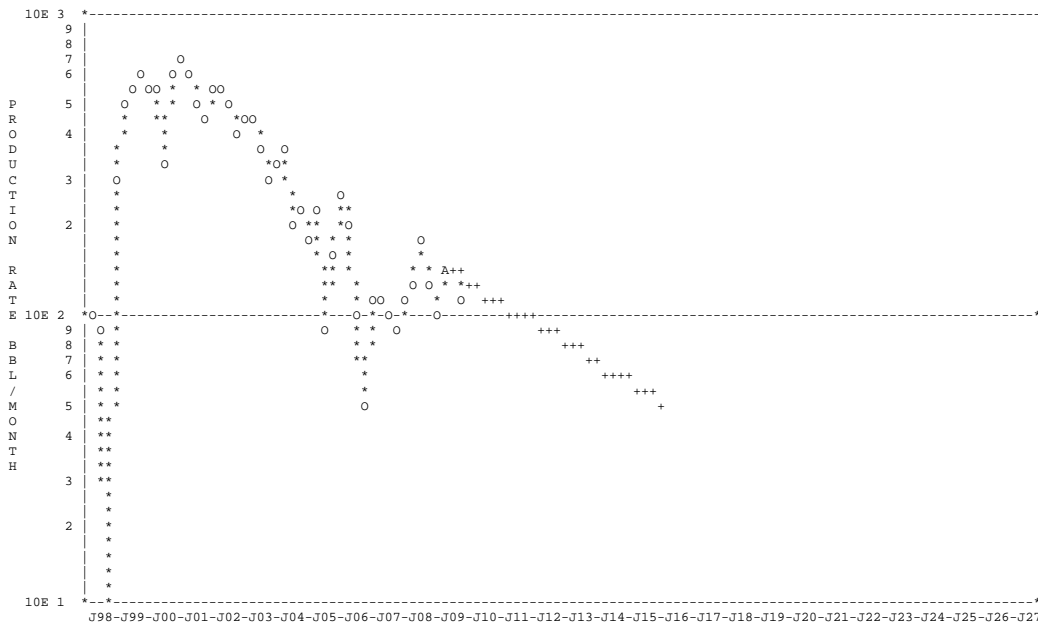
DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --			CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --				
				MON	OIL(BBL)	GAS(MCF)				WLS	DATE:	00/01/01	00/01/01	MON
PRIOR	98202	14147992	1	JAN	22	29304	1	DAILY-A:	4.8	1086.5	JAN	227	46713	1
1999	1476	378102	1	FEB	197	36798	1	DECL-%:	14.07	14.07	FEB	145	39738	1
2000	6618	1218292	1	MAR	156	38188	1	N-FACT:			MAR	32	42709	1
2001	6678	1138126	1	APR	292	39689	1	----- APPRAISER DECLINE -----			APR	167	40399	1
2002	5675	935663	1	MAY	84	40934	1	P START-RATE DECL-% N-FACT MOS			MAY	78	37741	1
2003	4269	795303	1	JUN	167	36969	1	G	1250.0	15.00	JUN	159	40099	1
2004	2876	601597	1	JUL	162	42031	1				JUL	83	37813	1
2005	2231	598200	1	AUG	134	29926	1				AUG	141	37367	1
2006	1349	477221	1	SEP	90	10870	1				SEP	98	35619	1
2007	1223	472678	1	OCT							OCT	125	35437	1
2008	1595	363776	1	NOV	63	12018	1				NOV			
2009	1255	393635	1	DEC	228	47049	1				DEC			
2010								GRL:	1750000					



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777004 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: LAZY LINDA COMMENT: SAMPLE GAS LSE-SML MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	2009 MONTHLY PRODUCTION	2010 MONTHLY PRODUCTION
PRIOR	98202	14147992		MON OIL(BBL) GAS(MCF) WLS	DATE: 00/01/01 00/01/01
1999	1476	378102	1	JAN 22 29304 1	DAILY-A: 4.8 1086.5
2000	6717	1139201	1	FEB 197 36798 1	DECL-%: 14.07 14.07
2001	6618	1218292	1	MAR 156 38188 1	N-FACT:
2002	6678	1138126	1	APR 292 39689 1	----- APPRAISER DECLINE -----
2003	5675	935663	1	MAY 84 40934 1	P START-RATE DECL-% N-FACT MOS
2004	4269	795303	1	JUN 167 36969 1	G 1250.0 15.00
2005	2876	601597	1	JUL 162 42031 1	
2006	2231	598200	1	AUG 134 29926 1	
2007	1349	477221	1	SEP 90 10870 1	
2008	1223	472678	1	OCT	
2009	1595	363776	1	NOV 63 12018 1	
2010	1255	393635		DEC 228 47049 1	



DOCUMENT 9J

GAS LSE Sample #2-Larger

MAP111
10/06/10 13.55

CAPITOL APPRAISAL GROUP, INC.
DETAILED MINERAL APPRAISAL
INCOME APPROACH: DNCF TECHNIQUE

PAGE 1

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01
FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

HISTORICAL PRODUCTION:

DATE OF FIRST PRODUCTION: 86/06/01

-----RAILROAD COMMISSION PRODUCTION-----							
DATE	OIL (BBL)	GAS (MCF)	WATER (B/D)	FTP	FLOW	LIFT	WELLS
PRIOR	253	33236764					
1999		1599264		23	322	1	1
2000	2	1380913		28	288	1	1
2001		1201564		39	306	1	1
2002		758541		14	263	1	1
2003		823634		14	300	1	1
2004	4	591383		11	300	1	1
2005		280666		2	300	1	1
2006		192861		2	300	1	1
2007		183998		3	300	1	1
2008		177500		1	320	1	1
JAN		14132				1	1
FEB		15285				1	1
MAR		14972				1	1
APR		15605				1	1
MAY		12575		3	830	1	1
JUN		11876				1	1
JUL		12207				1	1
AUG		12153				1	1
SEP		10424				1	1
OCT		12252				1	1
NOV		11985				1	1
DEC		11254				1	1
2009		154720		3	830	1	1
TOTAL	259	40581808					

PROJECTION PARAMETERS:

PROJECTION DATE: 11/01/01 LIMIT DATE: 00/00/00
ANNUAL OIL PRODUCTION: OIL RESERVE LIMIT:
ANNUAL GAS PRODUCTION: 154720 GAS RESERVE LIMIT:
NUMBER OF PRODUCING WELLS: 1 NUMBER OF INJECTION WELLS:

DECLINE PARAMETERS:

----CALCULATED PARAMETERS----			----APPRAISER PARAMETERS----				
	OIL	GAS	P	START-RATE	DECL-%	N-FACT	MOS
DATE:	98/01/01	98/01/01	G	400.0	15.00		
DAILY-A:		423.6					
DECL-%:	23.39	23.39					
N-FACT:							

SECONDARY PRODUCT RATIO: SECONDARY PRODUCT RATIO:

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01
FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

ECONOMIC PARAMETERS: PRODUCING WELLS: 1 BASE DISCOUNT RATE: 1.1300
OIL PRICE: 96.27 INJECTION WELLS: AD VALOREM TAX BURDEN: 2.00
OIL GRAVITY: 40.0 DEPTH: 15200 ECONOMIC LIFE: 24
OIL GRAVITY ADJUSTMENT: OPERATING COST (\$/WELL): 13082 P-TO-I (7/8-1/8): 4.1 4.1
GAS PRICE: 7.10 *** SECTION 22.27 RESTRICTION *** PAYOUT (7/8-1/8): 4.5 4.6
GAS PRICE PARITY: 1.00 EQUIPMENT COST (\$/WELL): 6547 R/P RATIO (OIL-GAS): 6.5

CASH FLOW ANALYSIS:

START DATE	-----PRODUCTION-----		-----PRODUCT PRICES-----		-7/8 REVENUE(M\$)-		---OP COST(M\$)---		---UNDISC	INCOME--	--DISCOUNTED INCOME--				
	OIL (BBL)	GAS (MCF)	OIL	NET	GAS	NET	OIL	GAS	DIRECT	CAP EXP	7/8(M\$)	1/8(M\$)	7/8(\$)	1/8(\$)	
10/01/01		134761	36.00	34.34	4.29	3.97		468	13		455	67	424331	62361	
11/01/01		114559	41.63	39.72	4.68	4.33		434	12		422	62	341870	50278	
12/01/01		97385	51.76	49.38	5.30	4.90		418	12		405	60	285646	42058	
13/01/01		82996	67.51	64.40	5.85	5.41		393	13		380	56	232890	34413	
14/01/01		70346	76.51	72.99	6.63	6.13		377	13		364	54	194006	28739	
15/01/01		59802	85.51	81.58	7.41	6.85		358	14		345	51	159761	23740	
16/01/01		50836	94.51	90.16	7.75	7.17		319	14		305	46	122829	18368	
17/01/01		43324	103.96	99.18	7.96	7.36		279	15		264	40	92661	13973	
18/01/01		36721	108.12	103.15	8.17	7.56		243	15		228	35	69436	10578	
19/01/01		31217	111.36	106.24	8.37	7.74		211	16		196	30	51911	8006	
20/01/01		26537	114.14	108.89	8.57	7.93		184	16		168	26	38744	6063	
21/01/01		22614	116.42	111.06	8.76	8.10		160	17		144	23	28812	4589	
22/01/01		19169	117.58	112.17	8.94	8.27		139	17		122	20	21209	3454	
23/01/01		16296	118.76	113.30	9.12	8.44		120	18		103	17	15582	2606	
24/01/01		13852	119.95	114.43	9.29	8.59		104	18		86	15	11341	1960	
25/01/01		11805	121.15	115.58	9.45	8.74		90	19		72	13	8214	1478	
26/01/01		10006	122.36	116.73	9.61	8.89		78	19		59	11	5847	1108	
27/01/01		8505	123.58	117.90	9.76	9.03		67	20		47	10	4113	832	
28/01/01		7232	124.82	119.08	9.90	9.16		58	20		38	8	2836	624	
29/01/01		6163	126.07	120.27	10.04	9.29		50	21		29	7	1911	469	
		864126	<===== SUB-TOTAL =====>					4552	322			4230	650	2113950	315697
		16657	<===== REMAINING =====>					139	90			49	20	2487	955
		880783	<===== TOTAL =====>					4691	412			4279	670	2116437	316652
								EQUIPMENT ADJUSTMENT:				7		213	
								VALUE AT BASE DISCOUNT RATE:						2116650	316652
								VALUE AT MAP ADJUSTMENT:		90/97				2053151	307152
								SECTION 23.175 VALUE:						1846443	275009
								TOTAL APPRAISED VALUE:						1846443	275009
								AVERAGE ANNUAL ROR:		19		19			

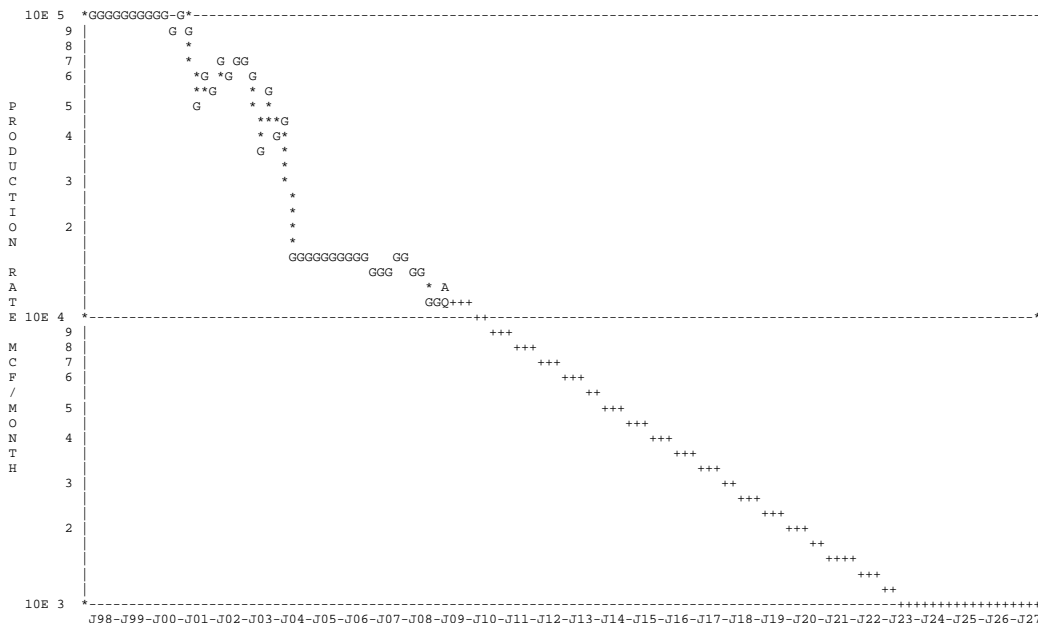
DIVISION ORDER TOTAL WORKING INTEREST & VALUE: .825000 1736440
*** SECTION 22.27 RESTRICTION ***

JURISDICTIONS: SAMPLE COUNTY 1.0000
 SAMPLE ISD 1.0000

CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01

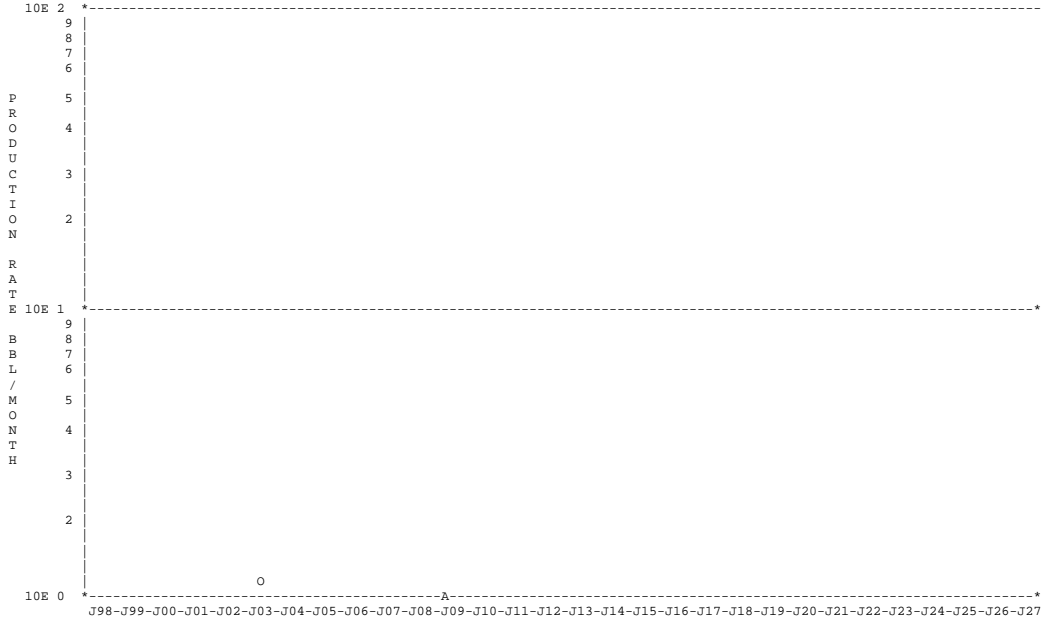
FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	MON	2009 MONTHLY PRODUCTION	WLS	CALC DECLINE:	OIL	GAS	MON	2010 MONTHLY PRODUCTION	WLS
PRIOR	253	33236764	1	JAN	OIL(BBL)	GAS(MCF)	DATE:	98/01/01	98/01/01	JAN	OIL(BBL)	GAS(MCF)
1999		1599264	1	JAN	14132	1	DAILY-A:		423.6	JAN	11602	1
2000	2	1380913	1	FEB	15285	1	DECL-%:	23.39	23.39	FEB	10651	1
2001		1201564	1	MAR	14972	1	N-FACT:			MAR	11644	1
2002		758541	1	APR	15605	1	----- APPRAISER DECLINE -----			APR	10865	1
2003		823634	1	MAY	12575	1	P START-RATE DECL-% N-FACT MOS			MAY	11379	1
2004	4	591383	1	JUN	11876	1	G	400.0	15.00	JUN	11028	1
2005		280666	1	JUL	12207	1				JUL	11516	1
2006		192861	1	AUG	12153	1				AUG	10856	1
2007		183998	1	SEP	10424	1				SEP	11283	1
2008		177500	1	OCT	12252	1				OCT	11193	1
2009		154720	1	NOV	11985	1				NOV		
2010		112017	1	DEC	11254	1				DEC		



CLIENT: 777 SAMPLE COUNTY APPR DIST RRC: 99 777003 WELL: PRIMARY PRODUCT: GAS APPRAISAL AS OF: 10/01/01
FIELD (RES): 99999 999 COUNTY: 777 MODIFICATION DATE:
IND OPERATOR: 9999999 NOMINATOR NOT REQUIRED / SWR 3 MODIFICATION TIME:
LEASE NAME: FLYING ARROW COMMENT: SAMPLE GAS LSE --LG MODIFICATION USER: CHAR

DATE	OIL(BBL)	GAS(MCF)	WLS	-- 2009 MONTHLY PRODUCTION --	CALC DECLINE:	OIL	GAS	-- 2010 MONTHLY PRODUCTION --
PRIOR	253	33236764		MON OIL(BBL) GAS(MCF) WLS	DATE:	98/01/01	98/01/01	MON OIL(BBL) GAS(MCF) WLS
1999		1599264	1	JAN 14132 1	DAILY-A:		423.6	JAN 11602 1
2000	2	1380913	1	FEB 15285 1	DECL-%:	23.39	23.39	FEB 10651 1
2001		1201564	1	MAR 14972 1	N-FACT:			MAR 11644 1
2002		758541	1	APR 15605 1	----- APPRAISER DECLINE -----			APR 10865 1
2003		823634	1	MAY 12575 1	P START-RATE DECL-% N-FACT MOS			MAY 11379 1
2004	4	591383	1	JUN 11876 1	G 400.0 15.00			JUN 11028 1
2005		280666	1	JUL 12207 1				JUL 11516 1
2006		192861	1	AUG 12153 1				AUG 10856 1
2007		183998	1	SEP 10424 1				SEP 11283 1
2008		177500	1	OCT 12252 1				OCT 11193 1
2009		154720	1	NOV 11985 1				NOV
2010		112017		DEC 11254 1				DEC



Appendix F

CAGI Value Defense

Formal and Informal Procedures

General Comments

It is the Capitol Appraisal policy to follow the formal and informal procedures as established by each individual client. Those policies will supersede the below referenced general practices used by this company if there is a conflict.

Informal

Informal meetings with agents or taxpayers/owners on utility properties occur either on the telephone or in the offices of Capitol Appraisal if requested by the agent or owner. This procedure may also take place upon filing of a protest and is useful to finalize issues such as allocations and ownership.

Formal Meetings

Formal meetings with agents or taxpayers/owners take place at the physical location as directed by the appraisal district. Discussions with the agents or taxpayer/owners may take place prior to the scheduled meeting time with the Appraisal Review Board. A deadline for timely action is dictated by the appraisal district. Prior to the deadline and in the absence of the agent or taxpayer/owner being physically present there may be telephone conversations to discuss the protested issues. Failure to resolve the protested issue(s) and no representation by the agent or taxpayer/owner will result in the recommendation to affirm the noticed value and “no show” the agent or taxpayer/owner.

Affidavits used for evidence are presented to the Appraisal Review Board as scheduled by the appraisal district.

Value Defense Procedures for Informal Meetings and Formal Hearings

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 *Taxpayer's Rights, Remedies, and Responsibilities* 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.

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 *Taxpayer's Rights, Remedies, and Responsibilities* 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.

Oil & Gas Property

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. 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 *Taxpayer's Rights, Remedies, and Responsibilities* 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.

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 *Taxpayer's Rights, Remedies, and Responsibilities* 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.

Client Plan Provision

In the event that the client's value defense plan differs with the plan of Capitol Appraisal Group, the client's plan will be followed and supersedes the provisions of the Capitol Appraisal plan.

Value Defense Procedures for ARB Hearings

Industrial Real Property

If the taxpayer wishes to pursue a dispute beyond informal proceedings, the appraiser guides him 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 *Taxpayer's Rights, Remedies, and Responsibilities* 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.

Utilities

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Oil & Gas Property

If the taxpayer wishes to pursue a dispute beyond informal proceedings, the appraiser guides him 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 *Taxpayer's Rights, Remedies, and Responsibilities* 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.

Industrial Personal Property

If the taxpayer wishes to pursue a dispute beyond informal proceedings, the appraiser guides him 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 *Taxpayer's Rights, Remedies, and Responsibilities* 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.

Client Plan Provision

In the event that the client's value defense plan differs with the plan of Capitol Appraisal Group, the client's plan will be followed and supersedes the provisions of the Capitol Appraisal plan.

Appendix G
CAGI Mass Appraisal Report

2025-2026

MASS APPRAISAL REPORT

APPRAISED BY CAPITOL APPRAISAL GROUP

BUSINESS PERSONAL PROPERTY

Overview

This type of property consists of tangible personal property owned by a business or individual for the purpose of producing an income. The Uniform Standards of Professional Appraisal practice define personal property as “identifiable portable and tangible objects which are considered by the general public as being “personal,” e.g. furnishings, artwork, antiques, gems and jewelry, collectibles, machinery and equipment; all property that is not classified as real estate.”. The Texas Property Tax Code (Sec. 1.04(5)) defines tangible 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.” The Texas Property Tax Code (Sec. 1.04(4)) defines personal property as “...property that is not real property.”

Capitol Appraisal Group, Inc. is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. The completed appraisals are all retrospective in nature. The purpose of the appraisals is to estimate market value as of January 1 in accordance with the definition of market value established in the Texas Property Tax Code (Sec. 1.04). “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.

A separate definition of the value of inventory is found in the Texas Property Tax Code (Sec. 23.12(a)), “...the market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business.” Additionally, some inventories may qualify for appraisal as of September 1 in accordance with the provisions of Texas Property Tax Code Section 23.12(f).

The effective date of the appraisals is January 1 of the year for which this report is submitted unless the property owner or agent has applied for and been granted September 1 inventory valuation as allowed by Section 23.12(f) of the Texas Property Tax Code. The date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district.

The appraisal results will be used as the tax base upon which a property tax will be levied. A listing of the personal property appraised by Capitol Appraisal Group, Inc. for the appraisal district is available at the appraisal district office. Personal property is normally re-inspected annually.

Documents relevant to an understanding of these appraisals include the confidential rendition, if any, filed with the appraisal district by the owner or agent of the property; other reports described in the Texas Property tax Code; asset lists and other confidential data supplied by the owner or agent; Property Assessment Valuation published by the International Association of Assessing Officers and adopted by the Texas Comptroller of Public Accounts; and Engineering Valuation and Depreciation by Marston, Winfrey, and Hempstead; and the Texas Property Tax Code.

Capitol's personal property appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. Personal property appraisal staff stays abreast of current trends affecting personal property through review of published materials, attendance at conferences, course work, and continuing education. All personal property appraisers are registered with the Texas Board of Tax Professional Examiners.

Assumptions and Limiting Conditions

All appraisals are subject to the following assumptions and limiting conditions:

1. Title to the property is assumed to be good and marketable and the legal description correct.
2. No responsibility for legal matters is assumed. All existing liens, mortgages, or other encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management.
3. The appraisers developing these appraisals are not Requested to give testimony or attendance in court by reason of the appraisals, unless directed by, employed by, and provided legal counsel by the Appraisal District.
4. The appraisers do not necessarily inspect every property every year.
5. All sketches on the appraisal documents are intended to be visual aids and should not be construed as surveys or engineering reports unless otherwise specified.
6. All information in the appraisal documents has been obtained by members of Capitol Appraisal Group's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes.

Data Collection and Validation

Data on the subject properties are collected as part of the inspection process and through later submissions by the property owner. Submitted data may be on a rendition form or in other modes which require confidentiality. Subject property data is verified through previously existing records and through published reports. Additional data are obtained and verified through published sources, regulatory reports, and through analysis of comparable properties. Due to the multitude of personal property types there is no standard data collection form or manual.

Valuation Approach and Analysis

Personal property is 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. 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 estimate 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 item or unit 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.

The mathematical form of each model is described below.

Cost Approach

$$\begin{aligned} & \text{RCN} \\ & -\text{PD} \\ & -\text{FO} \\ & -\underline{\text{EO}} \\ & =\text{Cost Indicator of Value} \end{aligned}$$

Where:

RCN = Replacement or Reproduction Cost New

PD = Physical Depreciation

FO = Functional Obsolescence

EO = Economic Obsolescence

Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:

PGR = Potential Gross Rent

VCL = Vacancy and Collection Loss

FE = Fixed Expenses

VE = Variable Expenses

R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI

NOI for year n x DF for year n = PW of year n NOI

Net Reversion x DF for year n = PW of Reversion

Sum of PW's for all years 1 - n = Income Indicator of Value

Where:

NOI = Net Operating Income

DF = Discount Factor

PW = Present Worth

n = Last year of holding period

Market Data Approach

ASPCP/U = PU

PU x SU = Market Data Indicator of Value

Where:

ASPCP = Adjusted Sales Price of Comparable Property

U = Unit of comparison

ASPU = Adjusted Sales Price per Unit of comparison

SU = Subject Property's number of Units of comparison

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 of personal property is based on the likelihood of the continued use of the personal property in its current and/or intended use. An appraiser's identification of a property's highest and best use is always a statement of opinion, never a statement of fact.

Review and Testing

Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process. A computer-assisted statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance and are used when possible. However sales for some types of personal property are very infrequent. Furthermore, many market transactions occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Lastly, Capitol Appraisal Group's industrial appraisal methods and procedures for real and personal property are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review as well as appraisal-to-sale ratios and comparisons with single-property appraisals indicate the validity of the models and the calibration techniques employed. Commercial personal property appraised by Capitol Appraisal Group, Inc. is not subject to a methods and procedures review however it is included in the Property Tax Division's annual ratio study with satisfactory results.

INDUSTRIAL PROPERTY

Overview

This type of property consists of processing facilities and related personal property. Capitol Appraisal Group, Inc. is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. The completed appraisals are all retrospective in nature. The purpose of the appraisals is to estimate market value as of January 1 in accordance with the definition of market value established in the Texas Property Tax Code (Sec. 1.04). "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.

The effective date of the appraisals is January 1 of the year for which this report is submitted unless the property owner or agent has applied for and been granted September 1 inventory valuation as allowed by Section 23.12(f) of the Texas Property Tax Code. The date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district.

The appraisal results will be used as the tax base upon which a property tax will be levied. The properties are appraised in fee simple in conformance with the Texas Property Tax Code Sec. 25.06. This is a jurisdictional exception to the Standards Rule 6-5 © Comment of the Uniform Standards of Professional Appraisal Practice 2008. A listing of the industrial properties appraised by Capitol Appraisal Group, Inc. for the appraisal district is available at the appraisal district office. Industrial properties are normally re-inspected annually.

Documents relevant to an understanding of these appraisals include the confidential rendition, if any, filed with the appraisal district by the owner or agent of the property; other reports described in the Texas Property Tax Code; asset lists and other confidential data supplied by the owner or agent; the General Appraisal Manual adopted by the Texas Comptroller of Public Accounts; Property Assessment Valuation published by the International Association of Assessing Officers and adopted by the Texas Comptroller of Public Accounts; and Engineering Valuation and Depreciation by Marston, Winfrey, and Hempstead; and the Texas Property Tax Code.

Capitol's industrial appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. Industrial appraisal staff stays abreast of current trends affecting industrial properties through review of published materials, attendance at conferences, course work, and continuing education. All industrial appraisers are registered with the Texas Board of Tax Professional Examiners.

Assumptions and Limiting Conditions

All appraisals are subject to the following assumptions and limiting conditions:

1. Title to the property is assumed to be good and marketable and the legal description correct.
2. No responsibility for legal matters is assumed. All existing liens, mortgages, or other encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management.
3. The appraisers developing these appraisals are not requested to give testimony or attendance in court by reason of the appraisals, unless directed by, employed by, and provided legal counsel by the Appraisal District.
4. The appraisers do not necessarily inspect every property every year.
5. All sketches on the appraisal documents are intended to be visual aids and should not be construed as surveys or engineering reports unless otherwise specified.
6. All information in the appraisal documents has been obtained by members of Capitol Appraisal Group's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes.
8. The appraisers have inspected as far as possible, by observation, the improvements being appraised, however, it is not possible to personally observe conditions beneath the soil or hidden structural components within the improvements. Therefore no representations are made as to these matters unless specifically considered in an individual appraisal.

Data Collection and Validation

Data on the subject properties is collected as part of the inspection process and through later submissions by the property owner. Submitted data may be on a rendition form or in other modes which require confidentiality. Subject property data is verified through previously

existing records and through published reports. Additional data are obtained and verified through published sources, regulatory reports, and through analysis of comparable properties, if any. Due to the unique nature of many industrial properties there is no standard data collection form or manual.

Valuation Approach and Analysis

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.

The mathematical form of each model is described below.

Cost Approach

$$\begin{aligned} & \text{RCN} \\ & -\text{PD} \\ & -\text{FO} \\ & -\underline{\text{EO}} \\ & =\text{Cost Indicator of Value} \end{aligned}$$

Where:

RCN = Replacement or Reproduction Cost New

PD = Physical Depreciation

FO = Functional Obsolescence

EO = Economic Obsolescence

Income Approach

PGR
-VCL
-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:

NOI = Net Operating Income

PGR = Potential Gross Rent

VCL = Vacancy and Collection Loss

FE = Fixed Expenses

VE = Variable Expenses

R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI

NOI for year n x DF for year n = PW of year n NOI

Net Reversion x DF for year n = PW of Reversion

Sum of PW's for all years 1 - n = Income Indicator of Value

Where:

DF = Discount Factor

PW = Present Worth

n = Last year of holding period

Market Data Approach

ASPCP/U = PU

PU x SU = Market Data Indicator of Value

Where:

ASPCP = Adjusted Sales Price of Comparable Property

U = Unit of comparison

PU = Price per Unit of comparison

ASPU = Adjusted Sales Price per Unit of comparison

SU = Subject Property's number of Units of comparison

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.

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. An appraiser's identification of a property's highest and best use is always a statement of opinion, never a statement of fact.

Review and Testing

Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process. A computer-assisted statistical review of property value changes is also conducted.

Appraisal-to-sales ratios are the preferred method for measuring performance, however sales are very infrequent. Furthermore, market transactions normally occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Lastly, Capitol Appraisal Group's industrial appraisal methods and procedures are subject to review by the Property Tax Division of the Texas Comptroller's office. The Comptroller's review as well as comparisons with single-property appraisals indicate the validity of the models and the calibration techniques employed.

UTILITY, RAILROAD, AND PIPELINE PROPERTIES

Overview

This type of property consists of operating property, excluding land, owned by utility, railroad, and pipeline companies, and related personal property and improvements. Capitol Appraisal Group, Inc. is contracted to reappraise this type of property according to the scope of work in the normal course of business of the client consistent with the Uniform Standards of Professional Appraisal Practice guidelines. The completed appraisals are all retrospective in nature. The purpose of the appraisals is to estimate market value as of January 1 in accordance with the definition of market value established in the Texas Property Tax Code (Sec. 1.04). "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.

The effective date of the appraisals is January 1 of the year for which this report is submitted unless the property owner or agent has applied for and been granted September 1 inventory valuation as allowed by Section 23.12(f) of the Texas Property Tax Code. The date of this report is April 20 of the tax year for which it is submitted.

The client for the mass appraisal is the Texas appraisal district named on the last page of this report. The intended users of this report are the client and the property owners of the client appraisal district

The appraisal results will be used as the tax base upon which a property tax will be levied. The properties are appraised in fee simple in conformance with the Texas Property Tax Code Sec. 25.06. This is a jurisdictional exception to Standards Rule 6-5 (c) comment of the Uniform Standards of Professional Appraisal Practice 2008. A listing of the utility, railroad, and pipeline properties appraised by Capitol Appraisal Group, Inc. for the appraisal district is available at the appraisal district office. Such utility, railroad, and pipeline properties that are susceptible to inspection (e.g. compressor stations, pump stations, buildings, and power plants) are normally re-inspected at least every three years.

Capitol's utility, railroad, and pipeline appraisal staff includes licensed engineers as well as experienced appraisers who are knowledgeable in all three approaches to value. The appraisal staff stays abreast of current trends affecting utility, railroad, and pipeline properties through review of published materials, attendance at conferences, course work, and continuing education. All appraisers are registered with the Texas Board of Tax Professional Examiners.

Assumptions and Limiting Conditions

All appraisals are subject to the following assumptions and limiting conditions:

1. Title to the property is assumed to be good and marketable and the legal description correct.
2. No responsibility for legal matters is assumed. All existing liens, mortgages, or other encumbrances have been disregarded and the property is appraised as though free and clear, under responsible ownership and competent management.
3. The appraisers developing these appraisals are not Requested to give testimony or attendance in court by reason of the appraisals, unless directed by, employed by, and provided legal counsel by the Appraisal District.
4. The appraisers do not necessarily inspect every property every year.
5. All sketches on the appraisal documents are intended to be visual aids and should not be construed as surveys or engineering reports unless otherwise specified.
6. All information in the appraisal documents has been obtained by members of Capitol Appraisal Group's staff or by other reliable sources.
7. The appraisals were prepared exclusively for ad valorem tax purposes.
8. The appraisers have inspected as far as possible, by observation, the improvements being appraised, however, it is not possible to personally observe conditions beneath the soil or hidden structural components within the improvements. Therefore no representations are made as to these matters unless specifically considered in an individual appraisal.

Data Collection and Validation

Data on the subject properties is collected as part of the inspection process and through later submissions by the property owner. Submitted data may be on a rendition form or in other modes which require confidentiality. Subject property data is verified through previously existing records and through published reports. Additional data are obtained and verified through published sources, regulatory reports, and through analysis of comparable properties. Due to the varied nature of utility, railroad, and pipeline properties there is no standard data collection form or manual.

Valuation Approach and Analysis

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.

The mathematical form of each model is described below.

RCNLD Approach

$$\begin{aligned} & \text{RCN} \\ & -\text{PD} \\ & -\text{FO} \\ & -\underline{\text{EO}} \\ & =\text{RCNLD Indicator of Value} \end{aligned}$$

Where:

RCN = Replacement or Reproduction Cost New

PD = Physical Depreciation

FO = Functional Obsolescence

EO = Economic Obsolescence

Unit Cost Approach

$$\begin{aligned} & \text{OC} \\ & -\text{AD} \\ & -\underline{\text{EO}} \\ & =\text{Unit Cost Approach Indicator of Value} \end{aligned}$$

Where:

OC = Original Cost

AD = Allowed Depreciation

EO = Economic Obsolescence

Unit Income Approach

$$\begin{aligned} & \text{PGR} \\ & -\text{VCL} \end{aligned}$$

-FE
-VE
NOI

NOI/R = Income Indicator of Value

Where:

PGR = Potential Gross Rent

VCL = Vacancy and Collection Loss

FE = Fixed Expenses

VE = Variable Expenses

R = Discount Rate or Cost of Capital

A variation of the income model is:

NOI for year 1 x DF for year 1 = PW of year 1 NOI

NOI for year n x DF for year n = PW of year n NOI

Net Reversion x DF for year n = PW of Reversion

Sum of PW's for all years 1 - n = Income Indicator of Value

Where:

NOI = Net Operating Income

DF = Discount Factor

PW = Present Worth

n = Last year of holding period

Stock And Debt Approach

MVE

+MVD

=Market Value of Assets

Where:

MVE = Market value of Equity

MVD = Market value of Debt

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. 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. An appraiser's identification of a property's highest and best use is always a statement of opinion, never a statement of fact.

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.

Review and Testing

Field review of appraisals is performed through the regular inspection of subject properties. The periodic reassignment of properties among appraisers or the review of appraisals by an experienced appraiser also contributes to the review process. A computer-assisted statistical review of property value changes is also conducted.

Appraisal to sales ratios are the preferred method for measuring performance, however sales are very infrequent. Furthermore, market transactions normally occur for multiple sites and include both real and personal property, tangible and intangible, making analysis difficult and subjective. Performance is also measured through comparison with valid single-property appraisals submitted for staff review. Appraisal results are tested annually by the Property Tax Division of the Texas Comptroller's Office. The Comptroller's review as well as comparisons with single-property appraisals indicate the validity of the models as well as the calibration techniques employed.

OIL AND GAS RESERVES

Overview

Capitol Appraisal Group, LLC. (CAGI) contracts with Appraisal Districts and other governmental entities to appraise all oil & gas subsurface, producing, mineral interests within the purview of the entity. The contractual purpose is to estimate market value as defined in Section 1.04 of the Texas Property Tax Code as of January 1 of each year and report these values to the entity. The results of our work are used as part of the tax base upon which property taxes are levied. Each mineral interest is listed on the appraisal roll separately from other interests in the minerals-in-place in conformance with the Texas Property Tax Code Sec. 25.12. Subsurface mineral rights are not susceptible to physical inspection. This condition creates the need to invoke the **Departure Provision** as Requested by the 2003 edition of the Uniform Standards of Professional Appraisal Practice Standards Rule 6-7 (f). However, the inability to physically examine the sub-surface mineral rights does not appreciably affect the appraisal process or the quality of the results.

Assumptions and Limiting Factors

All appraisals are subject to the following:

1. Title to the property is assumed to be good and marketable and the ownership interest and legal description is assumed to be correct.
2. No responsibility for legal matters is assumed. Properties are appraised as if free and clear of any encumbrance and operated under responsible ownership and competent management.
3. Not every property is inspected every year.
4. All information in the appraisal documents has been obtained by Capitol Appraisal Group's employees or through other reliable sources.
5. The appraisals were prepared exclusively for ad valorem tax purposes

Data Collection

Data on the properties appraised are collected from regulatory agencies, such as the Texas Railroad Commission and the Texas Comptroller of Public Accounts, from submissions by the property operator or owner(s), or from other sources. **Submitted data from operators, taxpayers and/or their agents on the appraised properties are considered “rendition statements” and, as such, are confidential data, subject to Sec. 22.27 of the Texas Property Tax Code.** Additional data are obtained through published sources, regulatory reports, public investment reports, licensed data services, service for fee organizations and through comparable properties, if any. The state of Texas is a non-disclosure state and thus many forms of information, pertinent to the value of the properties, are not available to the appraiser.

Valuation and Analysis

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, Inc. 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 Inc.'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 Division (PTD) 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.

Review and Testing

Each year we review the estimated market value for each mineral property appraised according to its year-to-year value change and also to industry expected payouts and income indicators. We also examine income projected to be received with the previous year's income and test that income against the lease's appraised value. Market value for income producing properties is a multiple of its monthly or annual income. Our experience through the years indicates that values typically vary within in a range of 2-5 times income, provided all appropriate income factors have been appropriately identified. Periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser also contribute to the review process.

Application of appraisal-to-sales ratios is another method for measuring performance. However, single property sales or sales of interest(s) within a property remain difficult to obtain due Texas' disclosure laws. Furthermore many market transactions are normally for multiple properties in multiple areas and include both real and personal property, tangible and intangible. We access licensed databases providing statistical data for company and property sales to compare our efforts. We also measure our performance through comparison of valid single-property market transactions, if any, that are submitted for staff review. Lastly, Capitol Appraisal's mineral appraisal values are subject to review each year in the Property Value Study conducted by the Property Tax Division of the Texas Comptroller of Public Accounts. The Property Tax Division's review as well as comparisons to industry transactions and to single-property market value sales (when available), indicate the validity of the models, techniques and assumptions used.

Appendix H

List of Acronyms

<u>Acronym</u>	<u>Description</u>
BOD	Board of Directors
BPP	Business Personal Property
CAD	County Appraisal District
CAGI	Capitol Appraisal Group, LLC.
CAMA	Computerized Assessment and Mass Appraisal
CCAD	Cherokee Central Appraisal District
CE	Continuing Education
COD	Coefficient of Dispersion
GIS	Geographic Information System
LV	Land Value
MV	Market Value
NADA	National Automobile Dealers Association
NOI	Net Operating Income
PACS	Property Appraisal/Collection Software
PRC	Property Record Card
PTAD	Property Tax Assistance Division, State Comptroller
PVS	Property Value Study
RPA	Registered Professional Appraiser
RTA	Registered Professional Assessor/Collector
SIC	Standard Industrial Code
TDLR	Texas Department of Licensing and Regulation
TEA	Texas Education Agency
TPTC	Texas Property Tax Code
USPAP	Uniform Standards of Professional Appraisal Practice

Appendix I

Examples of CCAD Model Tables

Commercial Improvement Example

21SA

Year: 2020 Type: LA(LIVING AREA)
Area Type: STMA(Total Area of MA Segments)
Method: U(UNIT)
Class: 21SA(OFFICE BLD STEEL-AVE)

Year: 2020 METHOD: U TYPE: LA CLASS: 21SA
INTERPOLATE: F MULTIPLIER QUALITY CD
Area Type: Total Area of MA Segments

RANGE MAX ADJ UNIT PRICE

0.00	49.79
9,999,999.00	49.79

Residential Improvement Example

M4-JA

Year: 2020 Type: LA(LIVING AREA)
Area Type: STMA(Total Area of MA Segments)
Method: U(UNIT)
Class: M4-JA(AVE FRAME BV RES)

Year: 2020 METHOD: U TYPE: LA CLASS: M4-JA
INTERPOLATE: T MULTIPLIER QUALITY CD
Area Type: Total Area of MA Segments PC OF

RANGE MAX ADJ UNIT PRICE

900.00	97.70
1,000.00	95.75
1,200.00	94.00
1,400.00	92.12
1,600.00	88.69
2,000.00	86.70
2,400.00	86.40
2,800.00	83.15
999,999.00	81.04

Rural Land Example

P46

YEAR: 2020
METHOD : A
TABLE CODE: P46
AG / MKT: M
INTERPOLATE: Y

RANGE MAX	UNIT PRICE	ADJ FACTOR	ADJ UNIT PRICE
0.00000	7,700.00	100.00	7,700.00
1.00000	7,370.00	100.00	7,370.00
5.00000	6,050.00	100.00	6,050.00
15.00000	3,690.00	100.00	3,690.00
40.00000	2,940.00	100.00	2,940.00
100.00000	2,470.00	100.00	2,470.00
320.00000	2,030.00	100.00	2,030.00
500.00000	1,680.00	100.00	1,680.00
9,999,999,999	1,605.00	100.00	1,605.00

Municipal Residential Land Example

JA

YEAR: 2020
METHOD : SQ
TABLE CODE: JA
AG / MKT: M
INTERPOLATE: Y

RANGE MAX	UNIT PRICE	ADJ FACTOR	ADJ UNIT PRICE
1.00000	0.98	100.00	0.98
15,000.00000	0.76	100.00	0.76
30,000.00000	0.42	100.00	0.42
45,000.00000	0.28	100.00	0.28
999,999,999.0	0.09	100.00	0.09

Commercial Land Example

JCG

YEAR: 2020

METHOD: SQ

TABLE CODE: JCG

AG / MKT: M

INTERPOLATE: Y

RANGE MAX UNIT PRICE ADJ FACTOR ADJ UNIT PRICE

0.00000	5.50	100.00	5.50
5,000.00000	7.20	100.00	7.20
10,000.00000	6.60	100.00	6.60
45,000.00000	6.30	100.00	6.30
47,500.00000	5.95	100.00	5.95
65,000.00000	3.64	100.00	3.64
85,000.00000	2.50	100.00	2.50
115,301.00000	1.18	100.00	1.18
119,700.00000	1.04	100.00	1.04
130,000.00000	0.50	100.00	0.50
217,800.00000	0.46	100.00	0.46
435,600.00000	0.44	100.00	0.44
871,200.00000	0.38	100.00	0.38
99,999,999.00	0.15	100.00	0.15

Appendix J
Governing Agencies and Contact Information

<u>Agency</u>	<u>Contact Info</u>
<p>Texas State Comptroller's Property Assistance Tax Division</p>	<p>P. O. Box 13528 Austin, Texas 78711-3528 1-800-252-9121 https://comptroller.texas.gov/taxes/property-tax/</p>
<p>Texas Department of Licensing & Regulation</p>	<p>P.O. Box 12157 Austin, Texas 78711 Toll-Free (in Texas): 800-803-9202 https://www.tdlr.texas.gov/taxprof/</p>
<p>Governor of Texas</p>	<p>Office of the Governor P.O. Box 12428 Austin, Texas 78711-2428 (512) 463-2000 https://gov.texas.gov/</p>
<p>State Representative, District 8</p>	<p>District Office 329 Neches Street Jacksonville, Texas 75766 (903) 589-3003 (903) 589-0203 fax https://www.house.texas.gov/members/member-page/?district=8</p>
<p>State Senator, District 3</p>	<p>District Office 329 Neches Street Jacksonville, Texas 75766 (903) 589-3003 (903) 589-0203 fax https://www.senate.texas.gov/member.php?d=3</p>
<p>Cherokee Central Appraisal District</p>	<p>P. O. Box 494 Rusk, Texas 75785 107 East 6th Street 903-683-2296 http://www.cherokeecad.com/</p>

Appendix K
Statutory Dates Calendar
Source: PTAD

January

1

- Date that taxable values (except for inventories appraised Sept. 1) and qualification for certain exemptions are determined for the tax year, (Secs. 11.42(a), 23.01(a),23.12(f)).
- Date a tax lien attaches to property to secure payments of taxes, penalties and interest that will be imposed for the year, (Sec. 32.01(a)).
- Date that members of appraisal district board of directors begin two-year terms in even-numbered years in countries with a population less than 75,000 (secs. 6.03(b)).
- Date that appointed members of appraisal district board of directors begin four-year staggered terms every other even numbered year, with elected members beginning four- year staggered terms every other odd-numbered year in countries with a population 75,000 or more (sec. 6.0301(e)).
- Date that half of appraisal review board (ARB) members begin two-year terms and that ARB commissions begin one-year terms (Sec. 6.41(d-8)).
- Date by which ARB commissions, if appointed in the county, are required to return a list of proposed ARB members to the local administrative district judge (Sec.6.41(d-7)).
- Deadline for chief appraisers to notify the comptroller's office of eligibility to serve as chief appraisers (Sec. 6.05(c)).
- Date the temporary exemption for qualified property damaged by disaster expired as a qualified property of the first tax year in which the property reappraised under Sec.25.28(Sec. 11.35(k)).

2

- Date rendition period begins (Sec. 22.23(a))

10

- If a tax bill from the previous year is mailed after this date, the delinquency date is postponed (Sec. 31.04(a)).

31

- Deadline for the comptroller's office to publish the preliminary school district property value study (SDPVS) findings, certify findings to the Texas commissioner of education, and deliver findings to each school district (Gov't Code Sec. 403.302(a)).

NOTE: a qualified school district or property owner may protest preliminary findings by filing a petition with the comptroller not later than the 40th day after the date (whether Jan. 31 or an earlier date) on which the Comptroller's findings are certified to the Texas commissioner of education (Gov't Code Sec. 403.303(a)).

- Last day for chief appraiser to deliver applications for agricultural designation and exemptions requiring annual applications (Sec. 11.44(a), 23.43(e)).
- Last day for disabled or age 65 or older homeowners or disabled veterans and their surviving spouses qualified for Sec.11.22 exemptions to provide notice of intent

to pay by installment and pay the first installment of homestead property taxes in the delinquency date is Feb. 1. Other delinquency dates have different installment notice and payment deadlines. This deadline also applies to partially disabled veterans and their surviving spouses with homesteads donated from charitable organizations (Sec.31.031(a-1)).

- Last day for homeowners or qualified businesses whose properties were damaged in a disaster within a designated disaster area to pay the first installment for taxes with Feb. 1 delinquency dates if using installment payment option. Other delinquency dates have different notice and payment deadlines (Sec. 31.032(b)).
- Last day for an appraisal district to give public notice of the capitalization rate to be used in that year to appraise property with low- and moderate-income housing exemptions (Sec. 11.1825(r)).

February

1

- Last day for motor vehicles, vessel and outboard motors, heavy equipment and manufactured housing dealers to file dealer's inventory declarations (Secs. 23.121(f), 23.124,(f) 23.1241(f), 23.127(f)).
- Date that taxes imposed the previous year become delinquent if a bill was mailed on or before Jan. 10 of the current year (Secs. 31.02(a), 31.04(a)).
- Rollback tax and interest for change of use of 1-d, 1-d-1, timber, and restricted-use timber land become delinquent if taxing unit delivered a bill to the owner at least 20 days before this date (Secs. 23.46(c),23.55(e),23.76(e),23.9807(f)).

15

- Last day for tax collector to disburse motor vehicle, vessel and outboard motor, heavy equipment and manufactured housing inventory taxes from escrow accounts to taxing units (Secs. 23.122(k), 23.1242(j), 23.125(k), 23.128(j)).

28

- Last day to request separate appraisal for interest in a cooperative housing corporation (Sec. 23.19(c)).

March

31

- Last day for taxing units' second quarterly payment for the current year appraisal district budget (Sec. 6.06(e)).
- Last day for disabled or 65-or-older homeowners or disabled veterans and their surviving spouses qualified for Sec. 11.22 exemptions to pay second installments on taxes with Feb. 1 delinquency dates. Other delinquency dates have different installment payment deadlines. This deadline also applies to partially disabled veterans and their surviving spouses with homesteads donated from charitable organizations (Sec.31.031(a) and (a-1)).
- Last day for homeowners or qualified businesses whose properties were damaged in a disaster area to pay second installment on taxes with Feb. 1 delinquency dates. Other delinquency dates have different installment payments deadlines (Sec. 31.032(a)and(b)).

- Last day for qualified community housing development organizations to file listing of property acquired or sold during the past year with the chief appraiser (Sec. 11.182(i)).

April

1

- Last day for qualifying local governments to submit completed applications to comptroller's office to receive disabled veteran assistance payments for previous fiscal year (Local Gov't Code Sec. 140.011(e)).
- Last day (or as soon as practicable thereafter) for chief appraiser to mail notices of appraised value for single-family residence homestead properties (Sec. 25.19(a)).
- Last day (or as soon thereafter as practical) for chief appraiser to deliver a clear and understandable written notice to property owner of a single-family residence that qualifies for an exemption under Sec. 11.13 if an exemption or partial exemption that was approved for the preceding year was canceled or reduced for the current year (Sec. 25.193(a)).
- Last day for the chief appraiser to notify the taxing units of the form in which the appraisal roll will be provided to them (Sec. 26.01(a)).

15

- Last day to file renditions and property reports on most property types. Chief appraiser must extend deadline to May 15 upon written request (Sec. 22.23(a) and (b)).

NOTE: The Comptroller and each chief appraiser are required to publicize the legal requirements for filing rendition statements and the availability of the forms in a manner reasonably designed to notify all property owners of the law (Sec. 22.21). Chief

appraisers need to check with their legal counsel to determine the manner and timing of this notice to meet the legal requirement.

30

- Last day for property owners to file these applications or reports with the appraisal district:
 - Some exemption applications (Sec. 11.43(d)**);
 - Notice to chief appraiser that property is no longer entitled to an exemption not requiring annual application (Sec. 11.43(g));
 - certain Applications for special appraisal or notices to chief appraiser that property no longer qualifies for 1-d and 1-d-1 agricultural land, timberland, restricted-use timberland, recreational-park-scenic land and public access airport property (Secs. 23.43(b), 23.54(d) and (h), 23.75(d) and (h), 23.84(b) and (d), 23.94(b) and (d), 23.9804(e) and (i));
 - Railroad rolling stock reports (Sec. 24.32(e));
 - Requests for separate listing of separately owned land and improvements (Sec. 25.08(c));
 - Requests for proportionate taxing of a planned unit development association property (Sec. 25.09(b));
 - Requests for separate listing of separately-owned standing timber and land (Sec. 25.10(c));

- Requests for separate listing of undivided interests (Sec. 25.11(b)); and
- Requests for joint taxation of separately owned mineral interest (Sec. 25.12(b)).
- Last day for chief appraiser to certify estimate of school district's taxable value for counties, municipalities, and school districts (counties and municipalities can choose to waive the estimate) (Sec. 26.01(e) and (f)). A school district with a fiscal year that begins July 1 may use this certified estimate when preparing the notices of public meetings to adopt the budget and discuss the proposed tax rate (educ. Code Sec. 4.004(g)-(j)).
- Last day to file rendition statements and property reports for property regulated by The Texas Public Utility Commission, Texas Railroad Commission, Federal Surface Transportation Board or the Federal Energy Regulatory Commission. Chief appraiser must extend the deadline to May 15 upon written request (Sec. 22.23(d)).
- Last day for property owners to file applications for allocation under Secs. 21.03, 21.031, 21.05, or 21.055. For good cause, chief appraiser shall extend deadline up to 30 days. Other deadlines apply if the property was not on the appraisal roll in the previous year (Sec. 21.09(b)).

May

1

- Last day (or as soon as practical thereafter) for chief appraisers to mail notices of appraised value for properties other than single-family residence homesteads (Sec. 25.19(a)).
- Last day (or as soon thereafter as practical) for chief appraiser to deliver a clear and understandable written notice to property owner of residence homestead property that does not qualify for an exemption under Sec. 11.13 if an exemption or partial exemption that was approved for the preceding year was canceled or reduced for the current year (Sec. 25.193(a)).

1-14

- Period to file resolutions with chief appraiser to change appraisal district's financial method (Sec. 6.061).

1-15

- Period when chief appraiser must publish notice about taxpayer protest procedures in a local newspaper with general circulation (Secs. 41.41, 41.70).

NOTE: chief appraisers must annually publicize property owner rights and methods to protest to the ARB (Sec. 41.41 (b)). Chief appraisers should consult legal counsel on the manner and timing to fulfill this requirement

2

- Beginning of time Period when taxing units must notify delinquent taxpayers that taxes delinquent on July 1 will incur additional penalty for attorney collection costs at least 30 days and not more than 60 days before July 1. period ends on June 1 (Sec. 33.07(d)). (Sec. 33.07).

15

- Deadline for ARBs to adopt ARB hearing procedures; adopted hearing procedures must be submitted to PTAD within 15 days of adoption (Sec. 41.01(c) and (d)).
- Last day for property owners to file renditions and property information reports if they requested an extension in writing. For good cause, chief appraiser may extend this deadline another 15 days (Sec. 22.23(b)).

- Date (or as soon as practicable thereafter) for chief appraiser to prepare appraisal records and submit to ARB (Secs. 25.01(a), 25.22(a)).
- Last day for property owners to file protest with ARB (or by 30th day after notice of appraised value is delivered, whichever is later) (Sec. 41.44(1)).

19

- Last day for chief appraiser to determine whether a sufficient number of eligible taxing units' filed resolutions to change CAD's finance method (Sec. 6.061).

24

- Last day for chief appraiser to notify taxing units of change in the CAD's finance method (Sec. 6.061).

31

- Last day for taxing units to file challenges with ARB (or within 15 days after the date the appraisal records are submitted to ARB (Whichever is later) (Sec. 41.04).
- Last day for disabled or age 65 or older homeowners or disabled veterans and their surviving spouses qualified for Sec. 11.22 exemptions to pay third installment on taxes with Feb. 1 delinquency dates. Other delinquency dates have different installment payment deadlines. This deadline also applies to partially disabled veterans and their surviving spouses with homesteads donated from charitable organizations (Sec. 31.031(a) and (a-1)).
- Last day for homeowner and qualified businesses whose properties were damaged in a disaster area to pay third installment on taxes with Feb. 1 delinquency dates. Other delinquency dates have different installment payment deadlines (Sec. 31.032(a) and (b)).
- Last day for a religious organization that has been denied a Sec. 11.20 exemption because of its charter to amend the charter and file a new application (or before the 60th day after the date of notification of the exemption denial, whichever is later) (Sec. 11.421(b)).
- Last day for taxing unit to take official action to extend the dare by which aircraft parts must be transported outside the state after acquired or imported to up to 730 days for the aircraft parts to be exempt from taxation as freeport goods for the current and subsequent tax year (Sec. 11.251(i)).

June

14

- Last day for chief appraiser to submit proposed budget for next year to appraisal district board and taxing units (unless taxing units have changed appraisal districts fiscal year) (Sec. 6.06(a) and (i)).

15

- Last day (or the 60th day after the date on which the chief appraiser delivers notice to the property owner under Sec. 22.22, if applicable) for chief appraisers to accept and approve or deny late filed freeport exemption applications (Sec. 11.4391(a)).

16

- Beginning date that appraisal district board may pass resolution to change appraisal districts finance method, subject to taxing units' unanimous approval. Period ends Aug. 15 (Sec. 6.061(a)).

30

- Last day to pay second half of split payment for taxes imposed last year (Sec. 31.03).
- Last day for taxing units' third quarterly payment for the appraisal district budget for the current year (Sec. 6.06(e)).
- Last day to form a taxing unit to levy property taxes for the current year (Sec. 26.12).
- Last day for taxing units to adopt local option percentage homestead exemptions (Sec. 11.13).
- Last day for private schools that has been denied an 11.21 exemption because of the charter and file a new application to amend charters and file new applications (or the 60th day after the date of notification of the exemption denial, whichever is later) (Sec. 11.422(a)(1)).

July

1

- Date that delinquent taxes incur total 12 percent penalty (Sec. 33.01(a)).
- A taxing unit or appraisal district may provide that taxes that become delinquent on or after Feb. 1 of a year but no later than May. 1 of that year and remain delinquent on July 1 of the year in which they become delinquent incur an additional penalty to defray costs of collection, if the unit or appraisal district or another unit that collects taxes for the unit has contracted with an attorney to enforce the collection of delinquent taxes (Sec. 33.07(a)).

NOTE: taxing units and appraisal districts that have imposed the additional penalty for collection costs under Sec. 33. 0 may provide for an additional penalty for attorney collection costs of taxes that become delinquent on or after June 1 under Secs. 26.07(f), 26.15(e), 31.03, 31.031, 31.032, 31.04, 42.42. The penalty is incurred on the first day of the first month that begins at least 21 days after the date the collector sends the property owner a notice of delinquency and penalty (Sec 330.8(a) and (c)).

- Last day for review and protests of appraisals of railroad rolling stock values (or as soon as practical thereafter); once the appraised value is approved, the chief appraiser certifies to the Comptrollers office the allocated market value (Secs. 24.35(b), 24. 36)).

20

- Date ARB must approve appraisal records, but may not do so if more than 5 percent of total appraised value remains under protest. The board of directors of a CAD with a population of 1 million or more may postpone the deadline to Aug. 30 or increase the threshold percentage from 5 to 10 percent of the appraised value of properties not under protest (Sec. 41.12(a)-(c)).

25

- Last day for Texas Comptroller to certify apportionment of railroad rolling stock value to counties, with supplemental records after that date (Sec. 24.38 and 24.40).

- Last day for chief appraiser to certify appraisal roll to each taxing unit (Sec. 26.01(a)).
- Last day for chief appraiser to prepare and certify to the assessor for each taxing unit an estimate of the taxable property value if the ARB had not approved the appraisal records by July 20 (Sec. 26.01(a-1)).

31

- Last day for disabled or age 65 or older homeowners or disabled veterans and their surviving spouses qualified for Sec. 11.22 exemptions to pay fourth installment on taxes with Feb 1 delinquency dates. Other delinquency dates have different installment payment deadlines. This deadline also applied to partially disabled veterans and their surviving spouses with homesteads donated from charitable organizations. (Sec. 31.031(a-a)).
- Last day for homeowners and qualified businesses whose properties were damaged in a disaster area to pay fourth installment on taxes with Feb 1 delinquency dates. Other delinquency dates have different installment payment deadlines (Sec. 31.032(b)).
- Last day for property owners to apply for Sept. 1 inventory appraisal for the next year (Sec. 23.12(f)).

August

1

- Date taxing unit's assessor submits appraisal roll and date that collector submits collection rate estimate for the current year to the governing body (or soon after as practical) (Sec. 26.04b)).

7

- Date taxing units (other than school districts and small taxing units and water districts) must publicize no-new-revenue and voter-approval tax rates, unencumbered fund balances, debt obligation schedule and other applicable items (or as soon as practical thereafter) (Sec. 26.04(e) and (e)(1), 26.052(b) and Water Code Secs. 49.107(g), 49.108(f))
- Date chief appraisers must post a notice on the appraisal districts internet website to property owners in the appraisal district stating the estimated amount of property taxes may be found in the property tax database required by Tax Code Section 26.17 (or as so thereafter as practicable) (Sec. 26.04(e-2)).
- Date chief appraisers must publish the notice required by the Tax Code Section 26.04(e-2) in a newspaper of general circulation in the county for which the appraisal district is established.

14

- Last day for appraisal district board to pass resolution to change appraisal district finance method, subject to taxing unit's unanimous consent (Sec. 6.061(a)).
- Last day for appraisal district board to pass resolution to change number of directors, method for appointing or both, and deliver the resolution to each taxing unit (Sec. 6.031).

15

- Deadline for Comptroller's office to certify final SDPVS findings Commissioner of Education except as provided (Comptroller Rule Sec. 9.4317(d)).

30

- Date ARB must approve appraisal records in appraisal districts in counties with populations of 1 million or more where the board of directors has postponed the deadline from July 20 (Sec. 41.12(c)(1)).

31

- If a tax bill is returned undelivered to a taxing unit by the United States postal service, a taxing unit must waive penalties and interest if the taxing unit does not send another tax bill at least 21 days before the delinquency date to the current mailing address furnished by the property owner and the property owner establishes that a current mailing address was furnished to the appraisal district for the tax bill before spt. 1 of the year in which the tax is assessed (Sec. 33.011(b)(1)).
- Last day taxing units may file resolutions with the appraisal district board to oppose proposed change in the appraisal district finance method (Sec. 6.061(a)).
- Last day for taxing unit entitled to vote for appointment of appraisal district directors to file a resolution opposing a change by the appraisal district board in selection of directors (Sec. 6.031(a)).
- Deadline to file form with chief appraiser and collector to elect not to be treated as a motor vehicle inventory dealer for the next tax year, if eligible (Sec. 23.121(a)(3)(d)(iii)).

September

1

- Date that taxable value of inventories may be determined at property owner's written option (Sec. 23.12).

14

- Last day for appraisal district board to adopt appraisal district budget for the next year, unless a district has changed its fiscal year (Sec. 6.06(b) and (i)).
- Last day for appraisal district board to notify taxing units in writing if a proposal to change a finance method by taxing units' unanimous consent has been rejected (Sec. 6.061(a)).
- Last day for appraisal district board to notify taxing units in writing if a proposal to change the number or method of selecting appraisal district boards of directors is rejected by a voting taxing unit (Sec. 6.031(a)).

29

- Last day for taxing units to adopt tax rate for the current year,, or before the 60th day after the date the certified appraisal roll is received by a taxing unit, whichever is later. Failure to adopt by these required dates results in a unit adopting the lower of its no-new-revenue tax rate for this year or last years tax rate; unit's governing body must ratify new rate within five days of establishing rate. (Sec. 26.05(a) and (c)).

30

- Last day for taxing units' fourth quarterly payment for appraisal district budget for the current year (Sec. 6.06(e)).

October

1

- Date tax assessor mails tax bills for the year (or soon after as practical) (Sec. 31.01(a)).

November

30

- First half of split payment of taxes is due on or before this date (Sec 31.03(a)).

December

1-31

- Time when appraisal office may conduct a mail survey to verify homestead exemption eligibility (Sec. 11.47(a)).

31

- Last day for taxing units' first quarterly payment for appraisal district budget for next year (Sec. 6.06(c)).
- Last day for taxing units to take official action to tax goods-in-transit for the following tax year (Sec. 11.253 (j)).

* Property Tax Code citations, unless otherwise noted.

** Exemption applications for cemeteries, charitable organizations, private schools, nonprofit water and wastewater supply corporations and other nonprofit organizations must be filed within one year of acquiring the property. Unless birth date information has been provided to the appraisal district, persons who become age 65 or qualify as disabled during a tax year must apply for the applicable homestead exemptions within one year of qualifying.

Note: The calendar shows the most important property tax deadlines for appraisal districts, taxing units and property owners in the current tax year. When the last day for performing an act falls on a Saturday, Sunday or legal holiday, Tax Code Section 1.06 designates the deadline as the next regular business day. Check with the local appraisal district office or tax office if a due date falls on the weekend or holiday. The deadlines shown on the calendar have been adjusted accordingly. The information provided in this calendar is advisory only. Any questions should be addressed with legal counsel for the governmental entity.

Appendix L
CCAD Activities Calendar
&
Division of Duties

Yearlong activities

- Deeds are processed and ownership changes updated to PACS, Paper maps and Digital Map file
 - Deeds Department assisted by Records Department & Temporary Contractor
- Address changes received from USPS and Owners processed in PACS
 - Records Department assisted by Collections and Deeds Department
- Sec. 25.25 supplements and corrections made pursuant to law
 - Records Department initiated by appraisers and CAGI
- Sales information accumulated and processed in PACS
 - Deputy Chief Appraiser

January

- Applications for Ag, Timber, Homestead & Annual Exemptions mailed to applicable owners
 - Records Department assisted by Deeds Department
- Business Personal ownership sweep which began in December continues
 - Business Personal Appraiser assisted by Real Estate Appraisers & Systems Administrator
- Ownership updates and Address Changes resulting from BPP Sweep processed in PACS
 - Business Personal Appraiser, Records Clerk II & Systems Administrator
- Real Estate upkeep countywide is performed
 - Real Estate Appraisers assisted by Records Department for data entry

February

- Business Personal Property Renditions prepared and mailed to owners
 - Business Personal Appraiser, Records Clerk II & Systems Administrator
- Receipt and processing of applications for Ag, Timber and Exemptions as applications return
 - Records Department assisted by Executive, Deeds and Appraisal Departments
- All sales information on hand processed and updated in PACS
 - Deputy Chief Appraiser
- Real Estate field inspections resumed at the completion of countywide upkeep
 - Real Estate Appraisers assisted by Records Department for data entry
- Business Personal Renditions processed as returned
 - Business Personal Appraiser, Records Clerk II & Systems Administrator
- 1st reminders mailed to non-responding Ag and Timber applications sent in January
 - Data Entry Clerk II or III
- Schedule ARB members and staff for PTAD ARB Training Sessions
 - Deputy Chief Appraiser, CCAD ARB Secretary, ARB Members

March

- Sales Ratio Analysis reports prepared and analyzed
 - Chief Appraiser, Deputy Chief Appraiser & Appraisal Supervisor
- Necessary field inspections resulting from Sales Ratio Analysis performed
 - Real Estate Appraisers initiated by Chief Appraiser/Deputy Chief Appraiser
- Send meaningless letter to outside collectors notifying them of the form and format of the appraisal roll (26.01(a)TPTC)
 - Chief Appraiser, before April 1st
- Processing of Business Personal Renditions continues
- Processing of Ag, Timber and Exemption applications continues
- Field inspections by Real Estate Appraisers continues
- Real Estate field inspections resumed at the completion of countywide upkeep
- Annual interviews of county real estate and banking officials
 - Chief Appraiser

- Initial calibrations of appraisal models begins
 - Chief Appraiser, Deputy Chief Appraiser & Appraisal Supervisor
- Reminders sent to non-responding Business Personal Rendition owners
 - Business Personal Appraiser assisted by Data Entry Clerk II & Systems Administrator

April

- Contact PTAD for estimates of Timber Values
 - Chief Appraiser
- Deadlines for Renditions and Ag/Timber applications approach
- Rendition Extension Requests processed and answered
 - Business Personal Appraiser assisted by Data Entry Clerk II & Systems Administrator
- Processing of Business Personal Renditions continues
- Processing of Ag, Timber and Exemption applications continues
- 2nd reminders mailed to non-responding Ag and Timber applications sent in January
 - Data Entry Clerk II or III
- All Pending Real Estate work, including Ag/Timber applications finished and processed
 - Real Estate Appraisers, Records Department
- Final Calibrations of appraisal models processed and analyzed
 - Chief Appraiser, Deputy Chief Appraiser & Appraisal Supervisor
- Management coordination meeting to plan and assign appraisal notice duties and supplies
 - Chief Appraiser, Deputy Chief Appraiser, Systems Admin, Business Manager & All department heads
- All Appraisal Notice Supplies ordered by April 15th or as soon thereafter as practicable
 - Business Manager assisted by department heads & Systems Administrator
- Issue meaningless statutory estimates of value to taxing units
 - Chief Appraiser

May

- Final Deed volumes processed and most up to date ownership changes processed
 - Deeds Department assisted by Records Department
- Final status updates for all Ag, Timber and Exemption applications processed
 - Records Department assisted by Real Estate Appraisers
- Final processing of Business Personal Renditions and analysis of non-rendered accounts
 - Business Personal Appraiser assisted by Data Entry Clerk II & Systems Administrator
- Receipt and storage of all appraisal notice printing materials
 - Systems Administrator & Business Manager
- Download and print all relevant PACS manuals for Notice Processing
 - Systems Administrator & Records Supervisor
- Finalize valuation models, Ag and Timber values and review final statistics
 - Chief Appraiser, Deputy Chief Appraiser & Appraisal Supervisor
- Begin Appraisal Notice Processing Procedures
 - Chief Appraiser, Deputy Chief Appraiser & All Department Heads
- Conduct Pre-Protest staff meeting to review procedures and expectations
 - Chief Appraiser
- Issue realistic estimates of value to taxing units
 - Chief Appraiser
- Begin Finalizing next year's budgets
 - Chief Appraiser
- Begin 30 day Protest Period

- Submit Records to ARB with affidavit
 - Chief Appraiser, CCAD ARB Secretary, ARB Members

June

- Continue 30 Day Protest Period
- Hold Hearing for Board Approval of Preliminary Budgets
 - Chief Appraiser
- Begin scheduling ARB hearing dates and dockets
 - Deputy Chief Appraiser, CCAD ARB Secretary, ARB Members
- Scheduling ARB hearing dates for CAGI accounts
 - Deputy Chief Appraiser, CCAD ARB Secretary, CAGI Appraisers
- Begin ARB hearings
 - Deputy Chief Appraiser, CCAD ARB Secretary, System Admin, ARB Members

July

- Prepare to finish ARB Hearings
- Hold ARB Hearing to Approve Appraisal Roll
 - Chief Appraiser, CCAD ARB Secretary, ARB Members
- Download and Print all related PACS manuals for Mineral Import and System Certification
 - System Administrator
- Coordinate Receipt and Download of CAGI computer file and perform import processes
 - Chief Appraiser, Records Supervisor, Systems Admin
- Verify and process all outstanding accounts including a review of non-responding ag/timber accounts
 - Chief Appraiser, System Admin, All Department Heads & Data Entry Clerk II or III
- Certify computer system
 - Chief Appraiser, Records Supervisor, Systems Admin
- Certify Appraisal Rolls to Taxing Units
 - Chief Appraiser

August

- Plan upcoming field appraisal goals and activities and review previous year
 - All Appraisers, Deputy Chief Appraiser, Appraisal Supervisor and Chief Appraiser
- Download and Print all related PACS manuals for New Year Layer process
 - System Administrator
- Perform New Year Layer Processes and ready system for new year data entry
 - Chief Appraiser, Records Supervisor, Systems Admin
- Begin Field Appraisal Work
 - All Appraisers, Records Department
- Begin Reappraisal Plan draft <Even-Numbered Years>
 - Board of Directors, Chief Appraiser

September

- Post and hold public hearing on Budgets and complete budgeting processes
 - Board of Directors, Chief Appraiser
- Notify and hold public hearing on Reappraisal Plan <Even-Numbered Years>
 - Board of Directors, Chief Appraiser
- Continue Field Appraisal Inspections

October - November

- Assist Collections Department with any required Field Inspections
 - Collections Department, All Appraisers
- Continue Field Appraisal Inspections

December

- Continue Field Appraisal Inspections
- Begin preparations for Business Personal Property Field Sweep
 - Business Personal Appraiser, System Administrator
- Begin preparations for New Year Upkeep inspections
 - All Real Estate Appraisers, Records Department, Deed Department
- Begin Business Personal Property Field Sweep
 - All Appraisers

Appendix M
Market Areas
&
Associated Model Codes

Market Area	Sub-Market Areas	Description	General Boundary Area
Bullard ISD		Bullard Schools encompass the northwestern corner of Cherokee County and overlap into Smith County. CCAD is responsible for only the area within the county boundary. The school is made up of high value residences with land and lot values above average for Cherokee Co. due to the Tyler, Texas influence. A portion of waterfront properties and subdivisions on the extreme southeastern part of Lake Palestine are a part of this area. A small section of the City of Bullard is included as well with a triangular strip of commercial property in Cherokee Co.	Northwestern Cherokee Co. traversing along the Cherokee/Smith line roughly 13.5 miles to the east and roughly 5 miles south to the Jacksonville ISD boundary at its deepest point. The school is traversed by state roads: SH69, FM 2493, FM 2137, FM 346, FM 855, FM 344 and bounded by Jacksonville ISD to the south and Troup ISD to the east, Smith County to the north, Henderson County to the northwest and Anderson County to the southwest.
	City of Bullard	The area of the City of Bullard within Cherokee Co. is limited and comprised primarily of a mix of average quality residences and residential neighborhoods, combined with a strip of commercial properties with prime highway frontage on the south side of the city. Residential neighborhoods are divided into the basic Average, Good, Fair and Low modeling schemas.	
	Lake Palestine	Very little water front property remains on the portion of Lake Palestine in Cherokee Co. that is not developed into subdivisions. Residential subdivisions range in quality from Excellent to Fair. Three subdivisions dominate the area in terms of size: Lakewood and ShadyBrook, which are fair quality subdivisions, and Eagles Bluff which is an excellent quality subdivision. Water depth is not an issue as the part of the lake in Cherokee is just north of the dam.	

Market Area	Sub-Market Areas	Description	General Boundary Area
Bullard ISD, cont.	Rural Subdivisions	Subdivisions that are not located on the lake inside Bullard ISD are predominately average to good quality and are characterized best by Katima Estates. Katima is a young subdivision with strong growth characteristics of class 5 and up type residences. The remaining subdivisions in the school can be described as average to good quality with the exception of the parts of Lakewood and Shadybrook subdivisions that are not situated adjacent to the lake and are fair quality.	
	Rural Undeveloped	Rural land, not within the submarket areas already designated comprise the remainder of the market area and are delineated by the type of access available to the individual property. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oil sand or other pavement public right-of-ways, not including state highways. Highway access is limited to Hwy 69 corridor property. This market area will be a mix of occasional commercial property, dominated by productive ag and timber lands and rural residential homes ranging from low to excellent quality site built homes with some manufactured units.	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Bullard ISD	City of Bullard		
		BA	CITY OF BULLARD AVERAGE
		BF	CITY OF BULLARD FAIR
		BG	CITY OF BULLARD GOOD
		BCA	CITY OF BULLARD COMMERCIAL AVE
		BCF	CITY OF BULLARD COMMERCIAL FAIR
		BCG	CITY OF BULLARD COMMERCIAL GOOD
	Lake Palestine		
		BLSA	BULLARD LAKE S/D AVG
		BLSG	BULLARD LAKE S/D GOOD
		CH COVE BA	CHEROKEE COVE BACK LOTS
		CH COVE BL	CHEROKEE COVE BL
		CH COVE WF	CH COVE WF
		CH CREK WF	CH CREK WF
		CHER COVE	CHEROKEE COVE WATER FRONT
		CHIM CR WF	CHIMNEY CREEK WATER FRONT LOTS
		CUM RDG 1	CUMBERLAND RIDGE 1
		CUM RDG 11	CUMBERLAND RIDGE 2
		CUM RDG 2	CUM RDG 2
		CUM RGD 2	CUM RDG 2
		DAVIS FF	DAVIS WATER FRONT LOTS
		DAVIS W F	DAVIS W F
		E DALE 1	EASTDALE ACRES BLK 1
		E DALE 2	EASTDALE ACRES BLK 2
		E DALE W F	E DALE W F
		E DALE WF	EASTDALE ACRES WATER FRONT LOTS
		EASTER FF	EASTER SHORES S/D FF
		EASTER SHO	EASTER SHO

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Bullard ISD			
	Lake Palestine, cont.		
		EB-LOTS	EAGLES BLUFF LOT SCHEDULE
		L WOOD 1&2	LAKEWOOD BLKS 1&2
		L3 CC	CHIMNEY CREEK BACK LOTS
		L3 CHE COV	CHEROKEE COVE BACK LOTS
		L3SC	STONE CHIM BACK LOTS
		LAK WD 1&2	LAKEWOOD BLKS 1&2
		LAKEWOD E	LAKEWOOD EAST BLKS 3-4-5-6
		LAKEWOOD E	LAKEWOOD EAST
		LK WOOD FF	LAKE WOOD WATER FRONT LOTS
		LK WOOD W2	LK WOOD W2
		LK WOOD WF	LAKEWOOD WATER FRONT 2ND
		OPALA W F	OPALA WATER FRONT LOTS
		PETTY 1	PETTY ESTS BLKS 2-3-4-5
		PETTY 2	PETTY ESTS BLKS 6-7-8
		PETTY W F	PETTY W F
		PETTY WF	PETTY ESTATES WATER FRONT
		S BRK WF 1	S BRK WF 1
		S BRK WF 3	SHADBROOK WAT FRONT LOTS 3
		S BROOK 5	S BROOK 5 *
		S BROOK 1	SHADYBROOK BLK 1
		S BROOK 1E	SHADYBROOK BLK 1E
		S BROOK 2	SHADYBROOK BLK 2
		S BROOK 3	SHADYBROOK BLK 3
		S BROOK 4	SHADYBROOK BLK 4
		S BROOK 5	SHADYBROOK BLK 5
		S BROOK 6	SHADYBROOK BLK 6
		S BROOK WF	SHADYBROOK WAT FRONT 1

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Bullard ISD			
	Lake Palestine, cont.		
		S CHIMNY 2	STONE CHIMNEY PHASE 2
		S CHIMNY 3	STONE CHIMNEY UNIT 3
		S HILL FF	SUNNY HILL W F LOTS
		SD BRK WF2	SD BRK WF2
		SH BK WF 3	SHADYBROOK WAT FRONT 3
		SHD BRK WF	SHADYBROOK WATER FRONT LOTS 2
		ST CHIM FF	STONE CHIMNEY WATER FRONT LOTS
		SU HILL FF	SU HILL FF
		SUN HILL	SUNNY HILL
		SUNNY HILL	SUNNY HILL
		WEAVER EST	WEAVER ESTATE
		WEAVER F F	WEAVER ESTATES WATER FRONT LOTS
		WEAVER FF	WEAVER ESTATES WATER FRONT LOTS
		WF-L3	WATER FRONT LOTS LAKE PALESTINE
		WF-L3-2	LAKE HSE LOTS EAGLES BLUFF
		WFAB3	WATER FRONT ABS LAKE PALESTINE
		WFL-32	FRONT FOOT
		WFL32	LAKE PALESTINE WATER FRONT
	Rural Subdivisions		
		BRSA	BULLARD RURAL SUB-AVG
		BRSG	BULLARD RURAL SUB-GOOD
		BRSG SQ FT	BULLARD RURAL SUB GOOD
		MEADOW VIE	MEADOW VIEW ESTATES

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Bullard ISD			
	Rural Undeveloped		
		L23	LANDLOCK- RURAL BISD
		D23	DIRT-RURAL BISD
		P23	PAVED- RURAL BISD
		P23C	HWY 2493 COMM BULLARD
		H23	HWY-RURAL BISD
		H23C	69 COMM LAND BULLARD

Market Area	Sub-Market Areas	Description	General Boundary Area
Troup ISD		Troup ISD is an overlap jurisdiction partly in Cherokee Co. and partly in Smith Co. CCAD is responsible for only the Cherokee Co. portion. The school has had some value influence from the Tyler, Texas area but not to the extent of the Bullard market area. The area is made up primarily of rural area inside Cherokee Co. with ag and timber productive lands combined with rural residential and sporadic commercial use properties. the school also has several open pit quarries and significant natural gas production and old lignite leases that have never been exercised. Most gas drilling has taken place on the Smith Co. side of the school. Residential properties run the gamut between very good quality residences to low end single wide trailers. Developed subdivisions are limited and trend to the average quality range. The school will encompass a large part of Lake Columbia if it is ever built. The lake has to date had little impact to overall values in the district.	Troup ISD runs roughly 8.5 miles east and west along the Cherokee/Smith border and roughly 9.5 miles south to the New Summerfield ISD line at its deepest point. There is also a detached geographic section of the school that physically occupies the north eastern corner of Cherokee Co. and is separated by Carlisle ISD inside Cherokee. The school is traversed by state roadways: SH 110, SH 135, FM 13, FM 2064 & FM 3052. It is bounded to the west by Bullard ISD, to the east by Carlisle ISD, the southwest by Jacksonville ISD and the south-southeast by New Summerfield ISD.
	City of Troup	Only a very small section of southern Troup is included in Cherokee Co. and predominately lies along the SH 110 and SH 135 corridors. It is made up of fair to average quality residential homes that are older in age, along with the industrial property of the Neckover trailer plant.	

Market Area	Sub-Market Areas	Description	General Boundary Area
Troup ISD, cont.			
	Rural Subdivisions	Rural subdivisions in Troup ISD are scattered, with several in the Mixon community area off of SH 135 on the southwest side of the school and Whispering Pines along SH 110. These subdivisions trend to the average distinction. Expansive or high value development has not occurred as yet in the district.	
	Rural Undeveloped	Rural land, not within the submarket areas already designated comprise the remainder of the market area and are delineated by the type of access available to the individual property. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oil sand or other pavement public right-of-ways. Paved access in Troup ISD has also included state highways 110 and 135 given that these two roadways are not shouldered and are more similar to farm-to-market roads than major highway thoroughfares. This market area is dominated by productive ag and timber lands and rural residential homes ranging from low to very good quality site built homes with many manufactured units.	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Troup ISD			
	City of Troup		
		TA	COT AVERAGE RES SQFT
		TF	COT FAIR RES SQFT
		TG	COT GOOD RES SQFT
		TL	COT LOW RES SQFT
		TCA	TROUP COMMERCIAL AVERAGE
		TCM1	TROUP COMMERCIAL
		TCM1A	TROUP COMMERCIAL
	Rural Subdivisions		
		TRSA	TROUP RURAL SUB-AVERAGE
		TRSG	TROUP RURAL SUB GOOD
	Rural Undeveloped		
		L81	LANDLOCK- RURAL TISD
		D81	DIRT-RURAL TISD
		P81	PAVED- RURAL TISD
		H81	HWY-RURAL TISD

Market Area	Sub-Market Areas	Description	General Boundary Area
Carlisle ISD		<p>Carlisle ISD is an overlapping jurisdiction that is shared between Cherokee and Rusk counties. The school comprises most of the northeast corner of Cherokee County and contains less than 1,000 real estate parcels. No municipal areas are inside the portion in Cherokee Co. and no significant developed subdivisions are present. The market area is dominated by ag and timber lands and rural residential properties ranging from low to good quality site built homes and also manufactured housing. The predominate mineral play in the school is oil and as such the tax base acts independently of other market area values bases that are heavily influenced by natural gas wells.</p>	<p>From the western boundary from the Troup ISD line, the district travels only 2 miles before encountering the "detached" portion of the eastern most section of Troup ISD, along the Cherokee/Smith border. It is roughly 6.5 miles at its deepest with an intersection with New Summerfield ISD. The school is traversed by FM 13 and FM 856. It is bounded by Troup ISD on its north east and north west sides, Rusk Co. to its east, New Summerfield ISD to its south.</p>
	Rural Undeveloped	<p>Rural land comprises the market area and are delineated by the type of access available to the individual property. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oils and or other pavement public right-of-ways. There is no highway designated access in this market area The market area is dominated by productive ag and timber lands and rural residential homes ranging from low to good quality site built homes with many manufactured units.</p>	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Carlisle ISD			
	Rural Undeveloped		
		L62	LANDLOCK- RURAL CISD
		D62	DIRT-RURAL CISD
		P62	PAVED- RURAL CISD

Market Area	Sub-Mkt Areas	Description	General Boundary Area
New Summerfield ISD		<p>New Summerfield ISD is contained within Cherokee Co., however a detached section of the school is found on the northeastern side of Lake Stryker, accessible only through Rusk Co roadways. The area is dominated by ag and timber land and rural residential homes. Additionally, the small town of New Summerfield and the small lake at Lake Stryker, give this district a bit of variety of property types. The area's main commercial interest is in wholesale plant farms, a small number of small manufacturers and the livestock sale barn. Residential property is mostly low to average quality with the exception of a small number of very good and excellent properties located on acreage tracts. A large number of low to fair quality manufactured homes are present in the area. This area has negligible mineral base and no appreciable subdivided interests outside of lake waterfront lots. The area is anticipated to share a prime section of eastern Lake Columbia when the lake is built. To date, no speculation in value can be attributed to this potential effect.</p>	<p>New Summerfield is roughly 10 miles at the widest points between Jacksonville ISD and the Rusk/Cherokee border and 8 miles roughly north to south between Carlisle and Rusk ISDs. As noted, a sliver of water front properties on the northeastern part of Lake Stryker are a part of this district. The area is roughly bisected east to west by SH 79 which intersects SH 110 north/south which forms the primarily intersection for commercial interests. It is traversed by FM 856, FM 2274, FM 235 & FM 2420. It is bounded by Rusk Co. to the east, Carlisle ISD to the northeast, Troup ISD to the northwest, Jacksonville ISD to the west, southwest and Rusk ISD to the south.</p>
	City of New Summerfield	<p>This city is a small jurisdiction with an extensive natural gas distribution system. Commercial interests are mostly wholesale plant farms and small consumer oriented businesses. This area is made up of low to fair quality residential homes with several low end manufactured housing units and a very small number of very good to excellent residential homes on acreage. The western boundary of the city will take in Lake Columbia when it is built. No effects to value from the potential lake are apparent at this time.</p>	

Market Area	Sub-Market Areas	Description	General Boundary Area
New Summerfield ISD, cont.			
	Lake Stryker	Lake Stryker is a small power plant lake on the eastern border of the area. Residential waterfront subdivisions are contained along both the west and east sides of the lake, extending down into Rusk ISD on the western shore. The residential inventory is made up of some manufactured homes with low to average quality properties. The lake is not an active recreational or real estate area.	
	Rural Undeveloped	Rural land, not within the submarket areas already designated comprise the remainder of the market area and are delineated by the type of access available to the individual property. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oil sand or other pavement public right-of-ways. Paved access in New Summerfield ISD also includes state highway 110 given that the roadway is not shouldered and is more similar to farm-to-market roads than major highway thoroughfares. Highway access is limited to the SH 79 corridor. This market area is dominated by productive ag and timber lands and rural residential homes ranging from low to good quality site built homes with many manufactured units.	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
New Summerfield ISD			
	City of New Summerfield		
		City receives the rural model base	
		NSCA	NEW SUMMERFIELD COMM. AVERAGE SQFT
	Lake Styker		
		WF-L2	LAKE STRIKER FRONT FOOT
	Rural Undeveloped		
		L42	LANDLOCK- RURAL NSISD
		D42	DIRT-RURAL NSISD
		P42	PAVED- RURAL NSISD
		H42	HWY-RURAL NSISD

Market Area	Sub-Market Areas	Description	General Boundary Area
Jacksonville ISD		<p>Jacksonville ISD lies in the middle part of Cherokee Co. extending to the Anderson/Cherokee Co. border. It is the primary commercial and industrial area of the county and contains the City of Jacksonville which is the largest in the county. This area has established industrial parks, commercial interests and encompasses one major lake, Lake Jacksonville, as well as, several smaller private lakes. Lake Columbia is anticipated to bound the eastern part of the district but no valuation effects to that potential are apparent at this time. Residential properties run the entire spectrum from low to excellent properties with significant numbers of manufactured homes scattered throughout and a in a small number of trailer parks. Developed residential subdivisions exist and range from fair to very good quality. Mineral interests are predominately natural gas.</p>	<p>Jacksonville ISD is roughly 17.5 miles north to south and east to west. It is bounded by Bullard ISD to the north, Rusk ISD to the south-southeast, Anderson Co. to the west, Troup ISD to the northeast and New Summerfield ISD to the east. It is bisected by SH 69 which runs north/south and SH 79 east to west. It is traversed by FM 855, SH 135, SH 175, FM 22, FM 347, FM 2138, FM 747, SH 204, FM 177.</p>
	City of Jacksonville	<p>The City of Jacksonville market area is the most diverse market area in the county, containing residential, industrial and commercial properties. It is the center of commerce for the county. The city is generally divided into residential and commercial neighborhoods classified from the low to good model scale. Within some of these neighborhoods, the model specifies an additional factor to realize many neighborhood areas may be similarly classed but value wise different. The city also controls the majority of waterfront lots on Lake Jacksonville and leases the lots on a 99 year lease. Actual city limits takes in only a portion of the eastern shore however. Many platted subdivisions are within the area and range from fair to very good quality. SH 69 corridor on the southern section of the city is the most valuable commercial area with the SH 79 east section being subordinate. Industrial concerns are focused on the plastics industry primarily, however that focus is in a state of transition at this time. The area includes three new flag hotels. The city also hosts two institutions of higher education and a seminary. Overall residential values and new construction within the city limits has been in moderate decline over the past 5 years as compared to historical measures. A population shift seems to be in play.</p>	

Market Area	Sub-Market Areas	Description	General Boundary Area
Jacksonville ISD, cont.			
	Lake Jacksonville	Lake Jacksonville supplies water for the city and surrounding area and is large enough and developed enough to compete for waterfront lake property under \$500,000 in the East Texas area. The majority of the usable water frontage has been platted and developed and very few vacant lots remain. All subdivided lots are 99 year lease lots owned by the city. Water levels can vary significantly from low to flood level given rain fall activity in the immediate area. Residential property trends to average quality and up with most new homes in the average plus to very good range. A limited number of low quality and manufactured homes are concentrated in a specific small area of the lake. The lake market area has been active in the real estate market in the past decade and continues to appreciate independent of other economic activity.	
	Lake Jacksonville - Non-Water Front	Starting in 2019, areas previously undeveloped that are on the opposite side of streets across from water front lots have begun to be developed and sold. These lots are exhibiting differing values from both water front and rural lot-based models. In 2020, CCAD segmented these locations into a new model in order to track and isolate value data for those locations.	
	Rural Subdivisions	Non-lake subdivisions in the area outside of the city are numerous and run the range of fair to very good quality residential construction. The area typically sees small subdivision projects less than 50 lots in size and most even smaller than that. There are several rural subdivisions in the Jacksonville area.	

Market Area	Sub-Market Areas	Description	General Boundary Area
Jacksonville ISD, cont.			
	Rural Undeveloped	<p>Rural land, not within the submarket areas already designated comprise the remainder of the market area and are delineated by the type of access available to the individual property. Additionally, the rural properties are modeled in a way that property adjacent, but outside the city limits is treated as a neighborhood apart from the remainder of the rural land. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oils and or other pavement public right-of-ways, not including most state highways. Highway access is limited to the Hwy 69 & 79 corridors. This market area will be a mix of occasional commercial or industrial property, dominated by productive ag and timber lands and rural residential homes ranging from low to excellent quality site built homes with many manufactured units.</p>	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Jacksonville ISD	City of Jacksonville	JL	COJ LOW RES SQFT
		JLA	COJ LOW RES SQFT
		JF	COJ FAIR RES SQFT
		JFA	COJ FAIR RES ACREAGE
		JA	COJ AVERAGE RES SQFT
		JAA	COJ AVERAGE RES ACREAGE
		JG	COJ GOOD RES SQFT
		JGA	COJ GOOD RES ACREAGE
		JCL	COJ COMM. LOW SQFT
		JCLA	COJ COMM. LOW ACREAGE
		JCF	COJ COMM. FAIR SQFT
		JCFA	COJ COMM. FAIR ACREAGE
		JCA	COJ COMM. AVERAGE SQFT
		JCAA	COJ COMM. AVERAGE ACREAGE
		JCG	COJ COMM. GOOD SQFT
		JCGA	COJ COMM. GOOD ACREAGE
		JIF	COJ INDUSTRIAL FAIR SQFT
		JIFA	COJ INDUSTRIAL FAIR ACREAGE
		JIAA	COJ INDUSTRIAL AVE ACREAGE
			Lake Jacksonville
		WV-L1A	WATER VIEW LAND - LAKE JACKSONVILLE AVERAGE
		WF-L1F	WATER FRONT LAND - LAKE JACKSONVILLE FAIR
		WF-L1A	WATER FRONT LAND - LAKE JACKSONVILLE AVERAGE
		WF-L1G	WATER FRONT LAND - LAKE JACKSONVILLE GOOD

		OW-L1	OFF WATER LOTS – LAKE JACKSONVILLE AVERAGE
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Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Jacksonville ISD, cont.			
	Rural Subdivisions		
		JRSF	JACKSONVILLE RURAL SUB-FAIR
		JRSA	JACKSONVILLE RURAL SUB-AVG
		JRSG	JACKSONVILLE RURAL SUB-GOOD
		WDL D CREEK	WOODLAND CREEK RURAL SUB
		WO LAND CR	WOODLAND CREEK SUB
		WOODL CREE	WOODLAND CREEK
	Rural Undeveloped		
		L46	LANDLOCK- RURAL JISD
		L76	LANDLOCK- JVILLE CITY LIMIT BORDER
		D46	DIRT-RURAL JISD
		D76	DIRT-JVILLE CITY LIMIT BORDER
		P46	PAVED- RURAL JISD
		P76	PAVED- JVILLE CITY LIMIT BORDER
		H46	HWY-RURAL JISD
		H76	HWY-JVILLE CITY LIMIT BORDER

Market Area	Sub-Market Areas	Description	General Boundary Area
Rusk ISD		<p>Rusk ISD geographically spans the width of Cherokee County and includes a small overlapping area in Rusk County in the Reklaw community. CCAD is responsible for only the area within Cherokee Co. The district hosts the center of local government for the county. This area is predominately ag and timber productive land and rural residential housing. The area is home to one of the state hospitals in Texas and also has a prison facility. State and local government jobs provide a large part of employment for the area. Additionally, the area has several recreational facilities with camping and RV spots supporting many tourism activities which include a former state railroad that operates between Rusk and Palestine. Commerce in the area is limited to consumer oriented businesses with a few small manufacturing type operations. The district also contains the south part of Lake Stryker and with it, an old gas fired electric power plant. The Rusk market area has maintained a measure of value appreciation as more people locate to the school district from the higher priced Bullard and Troup areas, and from the population shifts of the Jacksonville market area. This activity is anticipated to remain for the foreseeable future.</p>	<p>Rusk ISD is over 26.5 miles in overall width spanning the breadth of Cherokee County connecting the Anderson and Rusk/Nacogdoches county lines. It is roughly 16.5 miles at its deepest point and is bisected by SH 69 north to south. The district includes a small area located in Rusk Co., and also a small detached section of Cherokee Co. accessible only through Rusk Co. on the east bank of the Angelina River. It is traversed by the following state roadways: SH 69, SH 110, SH 84, SH 204, FM 747, FM 2138, FM 347, FM 2274, FM 235, FM 22, FM 2962, FM 2972, FM 1248, FM 1857, FM 23, FM 241, FM 752 & FM 343. The district is bounded by Alto ISD to the south, Jacksonville ISD to the northwest, New Summerfield ISD to the northeast, Anderson County to the west and Rusk & Nacogdoches Counties the east.</p>

Market Area	Sub-Market Areas	Description	General Boundary Area
Rusk ISD, cont.			
	City of Rusk	The City of Rusk is the county seat of Cherokee County and is the second area of commerce for the county behind Jacksonville. It is primarily a residential community made up of low to good quality site built homes with few manufactured homes in the area. Most homes are in the fair to average quality strata. Commerce is mainly consumer oriented. Both residential and commercial real estate models recognize low, fair, average and good quality neighborhood strata. A state hospital and prison are within the city limits and state and local government support employment for the area. The city has a limited number of small manufacturing type facilities. Tourism is the focus for this market area with several parks and other minor recreational areas supporting camping and RV slots.	
	Lake Stryker	Lake Stryker is a small power plant lake on the northeastern border of the district. Residential waterfront subdivisions for Rusk ISD are contained along the southwest side of the lake which extend north into New Summerfield ISD on both the west and eastern shorelines. The residential inventory is made up of some manufactured homes with low to average quality properties. The lake is not an active recreational or real estate area.	

Market Area	Sub-Market Areas	Description	General Boundary Area
Rusk ISD, cont.			
	Rural Subdivisions	Non-lake subdivisions in the area outside of the city run the range of fair to average quality residential construction. The rural subdivisions that are more than 5 lots, have limited impact on the local market area.	
	Rural Undeveloped	Rural land, not within the submarket areas already designated comprise the remainder of the market area and are delineated by the type of access available to the individual property. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oil sand or other pavement public right-of-ways, not including most state highways. Highway access is limited to the Hwy 69 & 84 corridors. This market area will be a mix of occasional commercial property, dominated by productive ag and timber lands and rural residential homes ranging from low to good quality site built homes with many manufactured units scattered throughout. Three primary rural neighborhoods have been recognized by the market in the areas west of the city encompassing the Madelle community and northeast of the city encompassing the Gallatin area. The third identified area is the balance of the rural land not included in these two neighborhoods.	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Rusk ISD			
	City of Rusk		
		RL	COR LOW RES SQFT
		RLA	COR LOW RES ACREAGE
		RF	COR FAIR RES SQFT
		RFA	COR FAIR RES ACREAGE
		RA	COR AVERAGE RES SQFT
		RAA	COR AVERAGE RES ACREAGE
		RG	COR GOOD RES SQFT
		RGA	COR GOOD RES ACREAGE
		RCL	RUSK COM LOW
		RCLA	RUSK COM LOW ACREAGE
		RCF	RUSK COM FAIR
		RCFA	RUSK COM FAIR ACREAGE
		RCA	RUSK COM AVERAGE
		RCAA	RUSK COM AVERAGE ACREAGE
		RCG	RUSK COM GOOD
		RCGA	RUSK COM GOOD ACREAGE
	Lake Stryker		
		WF-L2	LAKE STRIKER FRONT FOOT
	Rural Subdivisions		
		RRSF	RUSK RURAL SUB-FAIR
		RRSA	RUSK RURAL SUB-AVERAGE
		RRSG	RUSK RURAL SUB-GOOD

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Rusk ISD, cont.			
	Rural Undeveloped		
		L15	LANDLOCK- RURAL RISD
		D15	DIRT-RURAL RISD
		P15	PAVED- RURAL RISD
		H15	HWY-RURAL RISD

Market Area	Sub-Market Areas	Description	General Boundary Area
Alto ISD		<p>The Alto ISD market area covers a large geographic area between Rusk and Wells school districts and stretches from the east to the western boundaries of Cherokee County. The area has the small town of Alto, Texas which lies at the crossroads of SH 69 & 21. This community is predominately ag and timber productive land and rural residential properties. Commerce is very limited, although it does have a large automotive dealership and two wood processing plants specializing in treated lumber and poles. This market area contains one of the most active natural gas fields in the county that significantly affects the tax base annually. SH 21 that traverses east to west across the area is an old Spanish roadway (El Camino Real) with several historical markers along its length. A small state park is located at the extreme western boundary and houses a museum and outdoor interest stations. No camping or RV slots are offered.</p>	<p>Alto ISD is roughly 16 miles north to south at its deepest point and approximately 19.5 miles in width. It is bounded by Anderson and Houston Counties to the west, Nacogdoches County to the east, Rusk ISD to the north and Wells ISD to the south. It is roughly bisected by SH 69 in the vertical map plane and SH 21 in the horizontal. The following state roads traverse the area: SH 21, SH 69, FM 851, FM 241, FM 752, FM 23, SH 294 & FM 1911.</p>
	City of Alto	<p>This city is a small town whose largest commercial enterprises are the local grocery store and an automotive dealership. The remainder of commerce is consumer related. It is comprised of mostly low to fair quality residences with some average quality site built homes. The city operates its own natural gas distribution system that generates revenue for the municipality.</p>	

Market Area	Sub-Market Areas	Description	General Boundary Area
Alto ISD, cont.			
	Rural Subdivisions	Subdivisions in the area outside of the city run the range of fair to average quality residential construction. The rural subdivisions in this area are limited in number.	
	Rural Undeveloped	Rural land, not within the submarket areas already designated comprise the remainder of the market area and are delineated by the type of access available to the individual property. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oils and or other pavement public right-of-ways. Paved access in New Summerfield ISD also includes state highway 21 and 294 given that the roadway is not shouldered and is more similar to farm-to-market roads than major highway thoroughfares. Highway access is limited to the SH 69 corridor. This market area is dominated by productive ag and timber lands and rural residential homes ranging from low to average plus quality site built homes with many manufactured units throughout.	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Alto ISD			
	City of Alto		
		A1	ALTO CITY-SQUARE FOOT
		A1A	ALTO CITY-ACREAGE
		A2	ALTO CITY-SQUARE FOOT
		A2A	ALTO CITY-ACREAGE
		ACM1	ALTO COMMERCIAL
		ACM1A	ALTO COMMERCIAL
	Rural Subdivisions		
		ARSF	ALTO RURAL SUB-FAIR
		ARSA	ALTO RURAL SUB-AVERAGE
	Rural Undeveloped		
		L21	LANDLOCK- RURAL AISD
		D21	DIRT-RURAL AISD
		P21	PAVED- RURAL AISD
		H21	HWY-RURAL AISD

Market Area	Sub-Market Areas	Description	General Boundary Area
Wells ISD		Wells ISD anchors the southern tip of Cherokee County and overlaps partly with Angelina Co. with a small area. It is a timber and ag production area with rural residential and one of the smallest towns in the county. Commercial enterprise is severely limited and consists of just a few consumer oriented businesses. A natural gas play has developed in the area that has brought some interest and tax base to the area since 2008.	Wells ISD is roughly 14 miles east to west and approximately 10 miles north to south. It is bounded by Houston County to the west, Nacogdoches County to the east, Alto ISD to the north and Central ISD in Angelina County to the south. It is traversed by SH 69, FM 1911, FM 1247, FM 1819
	City of Wells	This city is a small town whose largest commercial enterprises are the local grocery store and a discount retail store. What remains of commerce is consumer related. It is comprised of mostly low to fair quality residences with some average quality site built homes. The market activity for the area is minimal.	
	Rural Subdivisions	Subdivisions in the area outside of the city run the range of fair to average quality residential construction. The rural subdivisions in this area are limited in number.	
	Rural Undeveloped	Rural land, not within the submarket areas already designated comprise the remainder of the market area and are delineated by the type of access available to the individual property. Landlocked areas are those with no public right-of-way access. Dirt areas are serviced by dirt or gravel public right-of-ways. Paved areas may be accessed by blacktop, oil sand or other pavement public right-of-ways. Highway access is limited to the SH 69 corridor. This market area is dominated by productive ag and timber lands and rural residential homes ranging from low to average quality site built homes with many manufactured units throughout.	

Market Area	Sub-Market Areas	Associated Model Codes	Code Description
Wells ISD			
	City of Wells		
		W1	WELLS CITY-SQUARE FOOT
		W1A	WELLS CITY-ACREAGE
		WCM1	WELLS-COMMERCIAL SQ FT
		WCM1A	WELLS COMMERCIAL-ACS
	Rural Subdivisions		
		WRSF	WELLS RURAL SUB-FAIR
	Rural Undeveloped		
		L08	LANDLOCK- RURAL WISD
		D08	DIRT-RURAL WISD
		P08	PAVED- RURAL WISD
		H08	HWY-RURAL WISD