TRINITY COUNTY APPRAISAL DISTRICT

2017 Mass Appraisal Report

INTRODUCTION

Scope of Responsibility

The Trinity County Appraisal District has prepared and published this report to provide our citizens and taxpayers with a better understanding of the district's responsibilities and activities. This mass appraisal report was written in compliance with Standards Rule 6-7 of the Uniform Standards of Professional Appraisal Practice (USPAP) as promulgated by the Appraisal Standards Board of The Appraisal Foundation. This report has several parts: a general introduction and then several sections describing information specific to particular appraisal divisions.

The 2017 mass appraisal was prepared under the provisions of the Texas Property Tax Code. Taxing jurisdictions that participate in the district must use the appraisals as the basis for imposition of property taxes. The State of Texas allocates state funds to school districts based upon the district's appraisals, as tested and modified by the state comptroller of public accounts.

The 2017 mass appraisal results in an estimate of the market value of each taxable property within the district's boundaries. Where required by law, the district also estimates value on several bases other than market value. These are described where applicable later in this report.

General Assumptions and Limiting Conditions

The appraised value estimates provided by the district are subject to the following conditions:

The appraisals were prepared exclusively for ad valorem tax purposes.
The property characteristic data upon which the appraisals are based is assumed to be correct.
Physical inspections of the property appraised were performed as staff resources and time allowed.

Validation of sales transactions occurred through questionnaires to buyer and seller, telephone survey and field review. In the absence of such confirmation, residential sales data obtained from vendors was considered reliable.

- No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to any property is assumed to be good and marketable, unless otherwise stated.
- All property is appraised as if free and clear of any or all liens or encumbrances, unless otherwise stated. All taxes are assumed to be current.
- All property is appraised as though under responsible, adequately capitalized ownership and competent property management.

- All engineering is assumed to be correct. Any plot plans and/or illustrative material contained with the appraisal records are included only to assist in visualizing the property.
- It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless noncompliance is stated, defined and considered in this mass appraisal report.
- It is assumed that all applicable zoning and use regulations and restrictions have been complied with unless a nonconformity has been stated, defined and considered in this mass appraisal report.
- It is assumed that all required licenses, certificates of occupancy, consents or other legislative or administrative authority from any local, state or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- It is assumed that the utilization of the land and improvements of the properties described are within the boundaries or property lines, and that there are no encroachments or trespasses unless noted on the appraisal record.

Unless otherwise stated in this report, the appraiser is not aware of the existence of hazardous substances or other environmental conditions. The value estimates are predicated on the assumption that there is no such condition on or in the property or in such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them

Effective Date of Appraisal and Date of the Report

With the exception of certain inventories for which the property owner has elected a valuation date of September 1, 2016, all appraisals are as of January 1, 2017. The date of this report is May 1, 2017.

Definition of Value

Except as otherwise provided by the Texas Tax Code (hereafter "Tax Code"), all taxable property is appraised at its "market value" as of January 1. Under the tax code, "market value" means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

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

The Tax Code defines special appraisal provisions for the valuation of several different categories of property. Specially appraised property is taxed on a basis other than market value as defined above. These categories include residential homestead property (Sec. 23.23, Tax Code), agricultural and timber property (Chapter 23, Subchapters C and D, Tax Code), real and personal property inventory (Sec. 23.12, Tax Code), certain types of dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), and nominal (Sec. 23.18) or restricted use properties (Sec. 23.83).

Definition of Special Valuations

"Agricultural or Timber Use Value" means land designated for agricultural or timber use is appraised at its value based on the land's capacity to produce agricultural or timber products but this value cannot exceed the market value of the land.

"Real Property Inventory Value" means the market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business. An inventory is defined as residential real property, which has never been occupied as a residence and is held for sale in the ordinary course of a trade or business, provided that the residential real property remains unoccupied, is not leased or rented and produces no income.

"Dealer Inventory Value" means the market value of a dealer's inventory on January 1, is the total annual sales from the dealer's inventory, less sales to dealer's fleet transactions, and subsequent sales, for the twelve (12) month period corresponding to the prior tax year, divided by twelve (12).

Area Analysis

TRINITY COUNTY. Trinity County (H-21) is in the East Texas Timberlands region. The center of the county lies at 31°07' north latitude and 95°05' west longitude. Groveton, the county seat of government, is near the center of the county and ninety air miles north of Houston. The county's name is from the Trinity River, which forms its southeastern boundary. Trinity County covers 692 square miles of rolling to hilly terrain that extends diagonally from the Trinity River northeast to the Neches River. The area is drained by these rivers and by a number of creeks that drain into them; near the southern tip of the county the Trinity has been dammed to form Livingston Reservoir, which provides water and recreation for the area. Altitudes in Trinity County range from 150 to 400 feet above sea level. Most parts of the area have reddish soils with loamy surfaces and clayey subsoil's; in the western parts of the county, the soils are light colored with sandy surfaces and clayey subsoil's. The county's climate is subtropical and humid, with warm summers and an annual average precipitation of forty-six inches. Temperatures range from an average low of 38° F in January to an average high of 94° F in July; the growing season lasts 260 days.
The City of Trinity is the largest with a population of 2787 people.
Before the advent of the lumber industry in the 1880s, the area was covered by forests of immense trees as large as fifty inches in diameter with first limbs sixty to eighty feet above the

ground. Though these forests were destroyed, many areas are now reforested, and much of the county is dotted with pine and hardwood forests. Sweet gum, black willow, hawthorn, water locust, willow, laurel, sycamore, redbud, dogwood, magnolia, chinaberry, green ash, winged elm, red maple, basswood, ironwood, hickory, winged sumac, oak, and short leaf and loblolly pine grow in abundance. Trinity County harbors a wide variety of wildlife species, including opossum, Eastern Mole, pocket gopher, coyote, red wolf, red fox, striped skunk, river otter, mink, beaver, deer, and armadillo. The area is also home to numerous snake species, from the harmless coachwhip and common garter snakes to the poisonous copperhead, Western cottonmouth, and diamond back rattler. Birds found in the area include great blue heron, ibis, marsh hawk, whippoorwill, mourning dove, roadrunner, and pileated woodpecker. About 59 percent of the land in the county is controlled by timber interests or the national government: almost 200,000 acres of the county's land is owned by lumber and paper companies, while the Davy Crockett National Forest covers more than 73,000 acres. In 1982 about 36 percent of the county was in farms and ranches; 83 percent of the area's agricultural receipts was from livestock and livestock products, especially cattle, milk, and hogs. Coastal and Bermuda grasses with winter ground cover of oats and rye were raised as feed for cattle, and local farmers also grew sweet potatoes, peaches, and pecans.

Artifacts from the Paleo-Indian and Archaic cultures have been found in the area that is now Trinity County, suggesting that it has been occupied by humans for perhaps 10,000 years or more. When the first Europeans explored the region it was inhabited by various Caddoan and Atakapan Indians, but diseases, especially smallpox, ravaged these agrarian peoples by the time the first Anglo-American settlers arrived. Various other tribes, including the Alabama, Kickapoo, Tantabogue, and Coushatta, settled in the area in the nineteenth century. In 1827, when the area was part of the Mexican municipality of Nacogdoches, it was granted to Joseph Vehlein, a Mexico City merchant, by the Mexican government. Vehlein never fulfilled the terms of his contract to settle 200 families in the area, and Mexican authorities later made several other grants to would-be colonizers, including María Guadalupe de Castro and Pedro José de Caro. The Indian population controlled the land until after the Texas Revolution, however, and the area seems to have attracted few if any European settlers until the 1840s.

In 1837 the Congress of the Republic of Texas established Houston County, which included all of the area of present Trinity County. The first recorded permanent white settler was a Jesse James, who settled on Alabama Creek in 1844, near a large Indian settlement. In 1845 John Gallion moved into the settlement and purchased the Indians' livestock and improvements. Though the subsequent fate of the area's Indian population is unknown, they seem to have moved to the Indian Territory. The earliest white settlers in the area lived primarily by hunting, eating the meat of their prey and sending pelts to eastern markets for whatever cash they would bring. On February 11, 1850, the Texas legislature established Trinity County. Jesse James, Benjamin B. Ellis, Solomon Adams, James Marsh, Henry Ward, John Gallion, and M. Duke Hornsby were appointed "to ascertain the centre of the county, to select two sites within five miles of the center suitable for site of the County Seat, [and] to hold an election to determine which would receive the most votes." In 1854 Sumpter, a primitive village was declared county seat, and a small courthouse and jail were built; that same year the county's first post office was established there. By the late 1850s Trinity County was a thriving frontier area that profited from the steamboat traffic on the Trinity River. Though most of the county's inhabitants supported themselves through hunting and subsistence agriculture, plantation agriculture was becoming increasingly important to the local economy. By 1857 a number of wealthy slaveholders, including C. C.

Tallifero, George Reese, and C. O. Wagnon, had moved into the area and established large plantations on which cotton and corn were grown. A saw and gristmill was built at Indian Camp Springs in 1857, providing lumber for frame houses and other structures. By 1860 there were 4,392 people, including 791 slaves and a free black, living in Trinity County. Farms covered 63,000 acres in the county, and almost 12,000 acres were classified as "improved"; that year 94,834 bushels of corn, 2,945 bales of cotton, and 210 pounds of tobacco were produced in Trinity County, along with other crops such as potatoes, sweet potatoes, and beans. Over 10,300 cattle were reported in the county, along with 1,465 sheep. Meanwhile Sumpter, the county seat, had grown to include three hotels, a grocery story, and a saloon. The *Trinity Valley*, a weekly newspaper, was being published there.

Though the population of the county was divided over the issue of secession in 1860, when the Civil War began the area strongly supported the Confederacy. Three companies of soldiers were raised in the county for the Southern cause, including one unit, which became part of Hood's Texas Brigade. The number of slaves in the county grew significantly during the conflict, possibly due to southerners fleeing west with their slaves; according to county tax records, the county's slave population increased to 1,227 by 1864. The Trinity County area also became a haven for Confederate deserters and criminals during the war, and public order broke down. Some of the county's most prominent men organized a vigilante committee; J. F. Moore, the county sheriff, led its operations. Though the vigilantes resorted to summary justice and lynched a number of men, the county was still in turmoil when the war ended. In 1866 three companies of Illinois infantry were stationed in Sumpter as occupation troops for Reconstruction, but the county's society continued to be turbulent and disorganized in the years just after the Civil War. The county's white population harbored a "spirit of resentment" against the federal troops, and the Ku Klux Klan conducted night rides and other operations intended to intimidate the newly freed blacks in the area. Meanwhile, outlaws such as John Wesley Hardin, who grew up in Trinity County, also harassed local citizens. According to Flora Bowles, who has written an extensive history of the county, violence and murder were almost commonplace during this time. The county's economy was disrupted by the Civil War and its aftermath; the number of acres in farms in the county dropped from 62,324 in 1860 to only 19,274 by 1870. Corn production and the number of cattle fell off in the area during the 1860s, and cotton production declined significantly; in 1870, 2,205 bales were produced, 25 percent fewer than in 1860. While the number of blacks living in the county rose sightly during the 1860s, the white population declined by 10 percent. A new town, Pennington, was established in the northwestern part of the county in 1866, but by 1870 the county's total population had declined to 4,140.
The county's social and political geography shifted after 1872, when the Great Northern Railroad extended its tracks into the small village of Trinity, located in the southwestern part of the county. Almost immediately people began to move out of Sumpter to Trinity and Pennington, sometimes taking their homes and other buildings with them. In May 1873, a few months after the Sumpter courthouse burned with most of the county records, the town of Trinity became the seat of government for the county. The next year, after another election, Pennington became the county seat; its courthouse burned in 1876. Meanwhile, in 1873, former slaves established the small town of Nigton in the northeastern part of the county. Agriculture in the area revived

during the 1870s. By 1880 there were 421 farms, encompassing 159,000 acres, in the county, and 25,000 acres were classified as "improved." That year local farmers devoted 6,802 acres to

cotton and produced 2,666 bales; another 9,184 acres were planted in corn, and 4,048 acres were planted in wheat. The county's population had also begun to grow again, and by 1880 there were 4,915 people (3,740 whites and 1,162 blacks) living in the area. In the early 1880s, after the Sabine branch of the International-Great Northern Railroad was built through the county; the area's economy and way of life were fundamentally changed. Attracted by the area's spectacular old-growth forests, a number of lumber operations, including the Trinity Lumber Company (1881), the Thompson-Tucker Lumber Company, (1883), and the J. T. Cameron Lumber Company (1883), rapidly moved into the area and opened sawmills. A new town, Groveton, appeared around the Trinity Lumber Company's mill and grew so quickly that in 1882 the county's voters chose to make it the county seat. New towns subsequently appeared in the county around other mills, as the lumber companies built houses, churches, schools, and eventually electric plants and waterworks, to accommodate their workers. By the early twentieth century company towns such as Willard (1909 population: 1,200), Josserand (900), Saron (1,200), and Westville (1,000) were home to the thousands of workers who cut, hauled, and sawed the area's timber. Black workers lived in segregated housing and attended segregated schools, churches, and meeting halls. The lumber industry also attracted a large number of transient workers who lived in portable camps that moved around the forests; as soon as these crews cleared the trees from an area, their houses would be placed on railroad flatbeds and carried to the next logging site.

While Trinity County's lumber operations dominated the local economy and drained labor away from the agricultural sector, farming nevertheless expanded in the county during the late nineteenth century. By 1900 there were 1,271 farms, encompassing 323,000 acres, in the area. Production of corn and cotton, the county's most important crops, increased steadily during this period and particularly during the 1890s; by 1900, 15,448 acres in the area were planted in corn, while 13,704 acres were devoted to cotton. The area's ranching industry also grew, and by 1900 over 20,000 cattle and 5,000 goats were reported in the county. Largely because of the lumber industry, but also because of this farm expansion, Trinity County's population grew to 7,648 by 1890 and to 10,976 by 1900. Lumbering in the county intensified during the early 1900s. Production was prodigious; one mill alone, owned by Thompson-Tucker Lumber, turned out 100,000 board feet of lumber daily in 1909. By that time, however, the county's old forests were almost played out. The town of Josserand died in 1909, when its mill closed that year, and Willard folded up in 1911 for the same reason; Saron died in 1919 and Westville in 1921. By 1928 only the lumber operations in Groveton and Trinity were still operating, and the companies that owned these mills were reaching into Tyler and Houston counties for their logs. Only ugly stumps and brush covered much of Trinity County, and the once-thriving sites of Willard, Josserand, Saron, and Westville were only "waste places covered with brambles." The Groveton mill closed at midnight on December 31, 1930, blowing its steam whistle for two hours to signal the end of an era in the county's history. Farming had declined in the county during the lumber boom of the early 1900s, but as the mill industry began to die, many of its former workers turned to farming. Helen Kerr Thompson, the wife of the president of the defunct Thompson-Tucker mill, encouraged them. In her attempt to revive agriculture in the area, Mrs. Thompson built chicken houses and filled them with purebred leghorn hens, stocked a ranch with registered Hereford cattle, and began a diversified farming program that focused on growing cotton, sugar

cane, and various grains. She took on tenant farmers to work some of her lands. About 100,000 acres of the county were in farms in 1925, but by 1930 farmland in the area had expanded to

encompass more than 143,000 acres. During that same period the number of farms in the county grew from 1,330 to 1,569. By 1930 almost 25,000 acres in the county were planted in cotton, more than twice the figure for 1920. Many of the new farmers were tenants; the number of farms in the area operated by tenants grew from 465 in 1920 to 726 by 1930. The expansion of agriculture in the area helps to explain why the county's population did not drop after the mills closed. There were 12,768 people living in the area in 1910, 13,623 in 1920, and 13,637 in 1930. Despite the agricultural expansion, the closing of the mills and the onset of the Great Depression had severely undermined the local economy. By the early 1930s a number of people had already moved out of Groveton, the county seat, and the town had lost some of its finest buildings to fires. The main railroads in the area stopped running, and the county had almost no paved roads aside from State Highway 94, which was completed between Groveton and Trinity in 1929. New Deal projects sponsored by the federal government did much to revive the area and to prepare it for the future, however. The Civilian Conservation Corps established camps at Trinity, Apple Springs, and Groveton and hired a number of young men for reforestation work, road construction, and erosion prevention measures. Sewing rooms were opened in the county to employ local women, and the Work Projects Administration built a new county jail and constructed high schools for Apple Springs, Pennington, Saglen, Centerville, and Groveton. Meanwhile, the Woodlake area became the site of an experimental federal commune under the Texas Rural Community Project. About 100 houses were built on three-acre tracts and filled with families selected from the relief rolls. The Woodlake community also became the base for a National Youth Administration camp, where as many as 150 young people at a time were trained in industrial crafts. The population of the area increased slightly during the 1930s to reach 13,705 by 1940. Trinity County's population declined significantly during the 1940s and 1950s as farms mechanized and consolidated; by 1950 there were only 975 farms in the county, and young people left to look for new opportunities elsewhere. Thanks to reforestation efforts, however, the lumber industry eventually revived, and by the 1960s there were two sawmills operating in the county. By the 1980s the area's timber production exceeded the yields of the timber boom of the early 1900s, and timber sales provided most of the county's revenue. Natural gas and oil were discovered in the county in 1946, but production levels remained low into the 1990s. About 20,000 barrels of crude were produced in the area in 1960, under 5,000 barrels in 1974, about 1,800 barrels in 1982, and about 64,000 barrels in 1990. In the 1960s the Trinity River was dammed to form Lake Livingston, which immersed part of the county and now provides recreation for the area's inhabitants and tourists. The population of the county steadily increased after the 1960s, reaching 7,628 in 1970, 9,450 in 1980, and 11,445 in 1990 and reaching 13,779 in 2000. By the year 2005 the area had increased another 584 to 14,363. The voters of Trinity County supported the Democratic candidates in virtually every presidential election between 1852 and 1992; the only exceptions occurred in 1972 and 1984. In the early 1990s the county's largest communities were Groveton (1990 population: 1,071) and Trinity (2,648). Other communities included Apple Springs, Barnes, Glendale, Nigton, Nogalus Prairie, Pennington, and Woodlake. The town of Trinity holds a community fair in September.

The District analyzes social, economic, government and environmental forces, which influence property values in the area. The area of influence is divided into neighborhoods. A “neighborhood” is defined as a group of complimentary land uses. A “District” is a type of neighborhood with homogeneous land use. The primary neighborhoods are the four (4) school districts. Neighborhoods or districts may be described within these school district neighborhoods

based on land use, type of structures, transportation arteries or topography. The City of Trinity is largely developed with residential properties ranging from older two story historical homes, to newer custom-built homes. Most new business construction is being located on State Highway 19.

Employment in the County centers on the four school districts, timber industry and steel fabrication facilities. Many individuals are also employed by The Texas Department Of Criminal Justice, which has several prisons within close proximity of the county. The unemployment rate for Trinity is approximately five percent (5%).

Properties Appraised

The mass appraisal appraised all taxable real and personal property known to the district as of the date of this report. With the exception of certain properties on which valuation was not complete as of the date of this report. These, by law, will be appraised and supplemented to the jurisdictions after equalization. The property rights appraised were fee simple interests, with the exception of leasehold interests in property exempt to the holder of the property's title. The latter are appraised under a statutory formula described in Sec. 25.07, Tax Code. The description and identification of each property appraised is included in the appraisal records submitted to the Trinity County Appraisal Review Board as of the date of this report.

Scope of Work Used to Develop the Appraisal

This mass appraisal appraised all taxable real and tangible personal property within the boundaries of the Trinity County Appraisal District, which encompasses all of Trinity County, Texas. This involves approximately 30,000 accounts. The district distributes the work of the appraisal among several appraisal personnel. The following sections describe, by area of responsibility, the scope of work performed and those items addressed in USPAP standard 6-7 (k) through (p).

The Chief Appraiser, who is the chief executive officer of the appraisal district, manages the district. All district employees report to the chief appraiser through their immediate supervisor. The district is further subdivided into four departments and a separate office of Human Resources. The four departments are Appraisal, responsible for all appraisal activities, Support Services, responsible for property records maintenance, taxpayer information and assistance, and support of the appraisal review board, Administration, responsible for budget and financial matters, and Information Systems, which operates the district's computer facilities. The district's appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with The Texas Department of Licensing and Regulation.

The appraisal district staff consists of 9 employees with the following classifications:

1-Official/Administrator (Executive level administration)
3-Professional (Supervisory and Management)
3-Technicians (Appraisers, program analysts and network support)
2-Administrative Support (professional, customer service, clerical and other)

While the appraisal district staff conducted most of the appraisal activities, the district received significant assistance from an appraisal contract firm and from the staffs of those appraisal districts whose boundaries overlap ours. The district established procedures whereby ownership and property data information are routinely exchanged. A coordinator and staff are assigned to oversee the ongoing exchange of data. Analysts and appraisers from adjacent appraisal districts discuss data collection and valuation issues to minimize the possibility of differences in property characteristics, legal descriptions, and other administrative data.

Determination of Highest and Best Use for Real Property

The district's market value appraisals are performed pursuant to Article VIII, Sec. 1., Texas Constitution, which provides that property must be taxed in proportion to its value as determined by law, Sec. 23.01, Tax Code implements this provision as follows:

§ 23.01. Appraisals Generally

(a) Except as otherwise provided by this chapter, all taxable property is appraised at its market value as of January 1.

(b) The market value of property shall be determined by the application of generally accepted appraisal methods and techniques. If the appraisal district determines the appraised value of a property using mass appraisal standards, the mass appraisal standards must comply with the Uniform Standards of Professional Appraisal Practice. The same or similar appraisal methods and techniques shall be used in appraising the same or similar kinds of property. However, each property shall be appraised based upon the individual characteristics that affect the property's market value.

While there is no specific statute defining highest and best use as it applies in appraisals conducted under the Property Tax Code, Texas courts have acknowledged that highest and best use is a factor that must be considered in determining market value. King v. Real 466 S.W.2d 1 TEX.Civ.App. 1971, Exxon Pipeline Co. v. Zwahr 2002 WL 1027003 Tex.,2002. In an unpublished opinion, the Houston Court of Appeals approved the following definition of highest and best use:

"Highest and best use" is the reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum profitability. Clear Creek Drainage Dist. of Galveston County v. Manison Not Reported in S.W.3d Tex.App.-Houston [14 Dist.], 1997.

Appraisal Performance tests and performance measures attained

The Texas Comptroller of Public Accounts conducts a bi-annual study to determine the degree of uniformity and the median level of appraisals by the appraisal district within each major category of property, as required by Section 5.10, Property Tax Code. The preliminary findings, based on the district's 2016 appraisal roll, were reported to the district on January 31, 2016. The overall median appraisal ratio for Trinity CAD was reported at 0.99.

The Comptroller of Public Accounts certifies a school district's local tax roll value to the Commissioner of Education if it is within the calculated statistical error margin. A margin of error of 5% is used for each school district. The 2017 published findings of the ratio study reported that all school districts received their local tax roll values.

Certification Statement:

"I, Gary Gallant, Chief Appraiser for the Trinity County Appraisal District, solemnly swear that I have made or caused to be made a diligent inquiry to ascertain all property in the district subject to appraisal by me, and that I have included in the records all property that I am aware of at an appraised value which, to the best of my knowledge and belief, was determined as required by law."

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Gary Gallant, RPA, CCA
Chief Appraiser

ADMINISTRATIVE STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

NAME	TITLE	BTPE NO.	TYPE OF ASSISTANCE
Karen Ivy	Deputy Chief Appraiser	67618	Oversight of Appraisal, Support Services, Information Systems, and Administration Departments
Pritchard and Abbott	Contract Appraisal Firm		Direct Appraisal of Industrial Properties
Pritchard and Abbott	Contract Appraisal Firm		Direct Appraisal of Mineral Properties
Karen Ivy	Director, Appraisal Operations	67618	Direct Appraisal Operations Activities
James Cody Wars	Special Use Appraiser	74580	Administer Special Use Valuation
Jonathan Huebner	Real Property Appraiser	74579	Measure, photograph and record data for residential real property
Kelly Denman	Personal Property Appraisal Supervisor	74937	Supervise and appraise Personal Property
Western Appraisal	Contract Appraisal Firm		Direct Appraisal of Commercial Properites

Report by Appraisal Division

As noted above, the district allocated the work of the mass appraisal among several areas within the appraisal department. The Appraisal Department, directs the overall operations of the appraisal of all property in the district. Included within this area are individuals that deal with litigation and agricultural valuation. The appraisers assigned to this area conduct most field inspections of property. The Residential, Commercial, and Personal Property appraisers develop, calibrate, and apply the various mass appraisal models for their respective property types. The contract appraisal firm Pritchard and Abbott appraises complex, mineral and industrial properties, some of which are appraised through mass appraisal models, others of which are directly appraised.

Field Operations

INTRODUCTION

Scope of Work

The field operations activities involve appraisers responsible for collecting and maintaining property characteristic data for all commercial, residential and personal property types, which are located within the boundaries of Trinity County. These activities involve the field inspection of real and personal property accounts, as well as data entry of all data collection into the existing property record system.

Periodic physical review of property is recommended at least every four to six years, according to the International Association of Assessing Officers (IAAO). The Trinity CAD is presently in a year-to-year cycle for residential and commercial property re-inspection. Personal property is being collected and verified on a one-year cycle.

Procedure for Collecting and Validating Data

Data collection requires organization, planning and supervision of the field staff. Data collection procedures have been established for residential, commercial, and personal property. The appraisers are assigned throughout Trinity County to conduct field inspections. Appraisers conduct field inspections and record information on a property record card (PRD), an inventory or a personal property data sheet.

The quality of the data used is extremely important in establishing accurate values of taxable property. While production standards are established and upheld for the various field activities, quality of data is emphasized as the goal and responsibility of each appraiser. New appraisers are trained in the specifics of data collection set forth in the listing manual as “rules” to follow. Experienced appraisers are routinely re-trained in listing procedures prior to major field projects such as new construction, sales validation or data review. A quality assurance process exists to review the work being performed by all the field appraisers. The quality assurance process is used to ensure that appraisers follow listing procedures, identify training issues and provide uniform training throughout the field appraisal staff.

Data collection of real property involves maintaining data characteristics of the property on CAMA (Computer Assisted Mass Appraisal). The information contained in CAMA includes site characteristics, such as land size and topography, and improvement data, such as square foot of living area, year built and effective age, quality of construction, and condition. Field Appraisers use listing manuals that establish uniform procedures for the correct listing of real property. All

properties are coded according to these manuals and the approaches to value are structured and calibrated based on this coding system. The field appraisers use these manuals during their initial training and as a guide in the field inspection of properties.

Data collection for personal property involves maintaining information on the Personal Property System. The type of information contained in the personal property system includes property such as business inventory, furniture and fixtures, machinery and equipment, cost and location and mobile homes. The field appraisers conducting on-site inspections use a personal property manual during their initial training and as a guide to correctly list all personal property that is taxable.

The listing procedure manuals that are utilized by the field appraisers are located and maintained in Groveton, but are made available to other employees throughout Trinity CAD that may require the use of the manual. Field appraisers periodically update the listing procedural manuals with input from the valuation appraisers.

Sources of Data

The sources of our data collection and verification are through building permits, data review/re-list field effort, data mailers, hearings, sales validation field effort, commercial sales verification, newspapers and publications, and property owner correspondence via the Internet.

Building permit data attained from Trinity County, surrounding cities, triggers field inspections on property experiencing significant characteristics changes due to new construction or remodeling. Unreported improvements are identified from aerial photographs, and an annual drive-by is conducted to identify the status of new residential subdivisions. Data accuracy is also enhanced by the availability of the district's property records on the Internet. Property owners frequently contact our web site to report data inaccuracies that initiate a field inspection or office correction of the data.

The use of the Internet has enabled us to download mobile home information and upload the data directly to a file in our computer system, which generates a questionnaire that is mailed to the property owner.

Data review of entire neighborhoods is conducted when ratio studies indicate wide dispersions between the value and the sale price. Appraisers do a careful drive-by of properties to review the accuracy of our data and identify properties that have to be re-listed. The sales validation effort in real property pertains to the collection of data of properties that have sold. In residential, sales validation involves on-site inspection by field appraisers to verify the accuracy of our data and to get confirmation of the sales price. In commercial, the commercial appraisers are responsible for calling up property owners to confirm sales prices and to verify pertinent data.

Data Maintenance

The appraisal clerical support group is responsible for coordinating all activities involving file building, quality assurance and data maintenance of the different property types after data collection. The responsibilities for the clerical support group falls into three activities: file build, quality assurance and data entry. The file build activity is to build, and maintain the work packs that are sent with the appraiser to the field. This includes maintaining facet maps, property record cards, model cards, angle sketches, control forms and other data. This group is also responsible for filing, boxing and warehousing this information. The quality assurance activity is for ensuring correct data as it is received from the field appraiser. This includes verifying proper codes, balancing and vectoring sketches, and ensuring proper data entry. The data entry activity is responsible for the input of all data to CAMA. This includes sorting, researching, keying accounts to BPS (Building Permit System), processing new subdivisions and split-outs, and hearing maintenance.

FIELD STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

NAME	TITLE	BTPE	TYPE OF ASSISTANCE
Karen Ivy	Deputy Chief Appraiser	67618	Appraisal Analysis
Jonathan Huebner & James Cody Wars	Appraiser Appraiser	74579 74580	Performs Quality Assurance
Brittany Ladiner	IT Director	73864	Oversee Data Collection
Brittany Ladiner & Jonathan Huebner	IT Director Appraiser	73864 74579	Residential Data Collection

NAME	TITLE	BTPE NO.	TYPE OF ASSISTANCE
Karen Ivy Jonathan Huebner	Deputy Chief Appraiser Appraiser	67618 74579	Commercial Data Collection
Kelly Denman	Appraiser	74937	Business Personal Property Data Collection
Kelly Denman	Appraiser	74937	Business Personal Property Data Collection
Kelly Denman Jonathan Huebner	Appraiser Appraiser	74937 74579	Coordinate shared CAD Data Collection

Residential Valuation

INTRODUCTION

Scope of Work

The Residential Valuation is responsible for developing equal and uniform market values for residential improved and vacant property for ad valorem purposes. There are approximately 6,511 residential improved parcels and 12,664 vacant residential properties in Trinity County.

Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. 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 undertakes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. In transition areas with ongoing gentrification, the analyst reviews the existing residential property use and makes a determination regarding highest and best use. Once the conclusion is made that the highest and best use remains residential, further highest and best use analysis is done to decide the type of residential use on a neighborhood basis. As an example, it may be determined in a transition area that older, non-remodeled homes are economic mis-improvements, and the highest and best use of such property is the construction of new dwellings. In areas of mixed residential and commercial use, the analyst reviews properties in these areas on a periodic basis to determine if changes in the real estate market require reassessment of the highest and best use of a select population of properties.

Model Specification

Area Analysis

Data on regional economic forces such as demographic patterns, regional vocational factors, employment and income patterns, general trends in real property prices and rents, interest rates trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources. Information is gleaned from real estate publications and sources such as The Real Estate Center of Texas A&M. Continuing education in the form of TDLR classes, real estate seminars offered by the Texas Association of Appraisal Districts and the

Texas Association of Assessing Officers, provide the valuation analysts a current economic outlook on Trinity County's real estate market. The valuation analysts are responsible for

collecting and recording some of the information described above on neighborhood data forms. These data forms are completed as part of the neighborhood analysis that is performed when the analyst delineates newly platted subdivisions into valuation neighborhoods.

Neighborhood and Market Analysis

Neighborhood analysis involves the examination of how physical, economic, governmental and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and stratify comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. Residential valuation and neighborhood analysis is conducted on each of the political entities known as Independent School Districts (ISD).

The first step in neighborhood analysis is the identification of a group of properties that share certain common traits. A "neighborhood" for analysis purposes is defined as the largest geographic grouping of properties where the property's physical, economic, governmental and social forces are generally similar and uniform. Geographic stratification accommodates the local supply and demand factors that vary across a jurisdiction. Once a neighborhood has been identified, the next step is to define its boundaries. This process is known as "delineation". Some factors used in neighborhood delineation include location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, square footage of living area, and story height. Delineation can involve the physical drawing of neighborhood boundary lines on a map, but it can also involve statistical separation or stratification based on attribute analysis. Part of neighborhood analysis is the consideration of discernible patterns of growth that influence a neighborhood's individual market. Few neighborhoods are fixed in character. Each neighborhood may be characterized as being in stage of growth, stability or decline. The growth period is a time of development and construction. As new neighborhoods in a community are developed, they compete with existing neighborhoods. An added supply of new homes tends to induce population shift from older homes to newer homes. In the period of stability, or equilibrium, the forces of supply and demand are about equal. Generally, in the stage of equilibrium, older neighborhoods can be more desirable due to their stability of residential character and proximity to the workplace and other community facilities. The period of decline reflects diminishing demand or desirability. During decline, general property use may change from residential to a mix of residential and commercial uses. Declining neighborhoods may also experience renewal, reorganization, rebuilding, or restoration, which promotes increased demand and economic desirability.

Neighborhood identification and delineation is the cornerstone of the residential valuation system at the district. All the residential analysis work done in association with the residential valuation process is neighborhood specific. There are various residential neighborhoods. Neighborhoods are field inspected and delineated based on observable aspects of homogeneity. Neighborhood delineation is periodically reviewed to determine if further neighborhood delineation is warranted. Whereas neighborhoods involve similar properties in the same location, a neighborhood group is simply defined as similar neighborhoods in similar locations.

Each residential neighborhood is assigned to a neighborhood group based on observable aspects of homogeneity between neighborhoods. Neighborhood grouping is highly beneficial in cost-

derived areas of limited or no sales, or use in direct sales comparison analysis. Neighborhood groups, or clustered neighborhoods, increase the available market data by linking comparable properties outside a given neighborhood. Sales ratio analysis, discussed below, is performed on a neighborhood basis, and in soft sale areas on a neighborhood group basis.

Model Calibration

Cost Schedules

All residential parcels in the district are valued from identical cost schedules using a comparative unit method. The district's residential cost schedules, originally adopted from a private mass appraisal firm, have been customized to fit Trinity County's local residential building and labor market. The cost schedules are reviewed regularly as a result of recent state legislation requiring that the appraisal district cost schedules be within a range of plus or minus 5% from nationally recognized cost schedules.

An extensive review and revision of the residential cost schedule was performed for the 2017 tax year. As part of this process, approximately 100 newly constructed sold properties at various levels of quality of construction in Trinity County were reviewed. The property data characteristics of these properties were verified and photographs were taken of the samples. From the total 20 samples, approximately 10 were selected for use in the cost system review. Trinity CAD dwelling costs were compared against Marshall & Swift, a nationally recognized cost estimator. This process included correlation of quality of construction factors from Trinity CAD, Marshall & Swift, and local builders. The results of this comparison were analyzed using statistical measures, including stratification by quality and reviewing estimated building costs plus land to sales prices. As a result of this analysis, a new regional multiplier was developed and is used in the district's cost process. This new regional multiplier was used to adjust the division's cost schedule to be in compliance with the state legislative mandate described above. PC spreadsheet applications have been created to address unique appraisal situations, such as different levels of remodeling and atypical housing features not normally accounted for in the mainframe benchmark cost system.

Sales Information

A sales file for the storage of "snapshot" sales data at the time of sale is maintained. Residential vacant land sales, along with commercial improved and vacant land sales are maintained in a separate sales information system. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyer and seller, field discovery, protest hearings, various sale vendors, builders, and realtors. A system of type, source, validity and verification codes was established to define salient facts related to a property's purchase or transfer. School district or neighborhood sales reports are generated as an analysis tool for the analyst in the development of value estimates.

Land Analysis

Residential land analysis is conducted by each of the analysts. The analysts develop a base lot, primary rate, and assign each unique neighborhood to one of the square foot land tables. The square foot land table is designed to systematically value the primary and residual land based on a specified percentage of the primary rate. A computerized land table file stores the land information required to consistently value individual parcels within neighborhoods. Specific land influences are used, where necessary, to adjust parcels outside the neighborhood norm for such factors as view, shape, size, and topography, among others. The analysts use abstraction and allocation methods to insure that the land values created best reflect the contributory market value of the land to the overall property value.

Statistical Analysis

The residential analyst performs statistical analysis annually to evaluate whether values are equitable and consistent with the market. Ratio studies are conducted on each of the residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy--level and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each stratified neighborhood within an ISD and summarized by year. These summary statistics including, but not limited to, the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion provide the analysts a tool by which to determine both the level and uniformity of appraised value on a stratified neighborhood basis. The level of appraised values can be determined by the weighted mean for individual properties within a neighborhood, and a comparison of neighborhood-weighted means can reflect the general level of appraised value between comparable neighborhoods. Review of the standard deviation, coefficient of variation, and coefficient of dispersion can discern appraisal uniformity within and between stratified neighborhoods.

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

Final Models: Market Adjustment and Time Consideration

Neighborhood, or market adjustment, factors are developed from appraisal statistics provided from ratio studies and are used to ensure that estimated values are consistent with the market. The district's primary approach to the valuation of residential properties uses a hybrid cost-sales comparison approach. This type of approach accounts for neighborhood market influences not specified in the cost model.

The following equation denoted the hybrid model used:

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

whereas, the market value equals the market adjustment factor times the land value plus the replacement cost new less depreciation. As the cost approach separately estimates both land and building values and uses depreciated replacement costs, which reflect only the supply side of the market, it is expected that adjustments to the cost values are needed to bring the level of appraisal to an acceptable standard. Market, or location adjustments are applied uniformly within neighborhoods to account for locational variances between market areas or across a jurisdiction.

If a neighborhood is to be updated, the analyst uses a cost ratio study that compares recent sales prices of properties appropriately adjusted for the effects of time within a delineated neighborhood with the properties' actual cost value. The calculated ratio derived from the sum of the sold properties' cost value divided by the sum of the sales prices indicates the neighborhood level of value based on the unadjusted cost value for the sold properties. This cost-to-sale ratio is compared to the appraisal-to-sale ratio to determine the market adjustment factor for each neighborhood. This market adjustment factor is needed to trend the values obtained through the cost approach closer to the actual market evidenced by recent sales prices within a given neighborhood. The sales used to determine the market adjustment factor will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor calculated for each update neighborhood is applied uniformly to all properties within a neighborhood. Once the market-trend factors are applied, a second set of ratio studies is generated that compares recent sale prices with the proposed appraised values for these sold properties. From this set of ratio studies, the analyst judges the appraisal level and uniformity in both update and non-update neighborhoods, and finally, for the school district as a whole.

Monthly time adjustments were developed using the sales ratio trend analysis method. For each school district, sales-to appraisal ratios based on unadjusted cost values was stratified on a quarterly basis. Statistics produced from the quarterly market data include measures of central tendency (mean and median) that represent the level of appraised values, and measures of uniformity (coefficient of dispersion and coefficient of variation) that represent the consistency of appraised values within and between strata. The resulting quarterly medians were graphically plotted for examination and analysis. A linear regression routine was performed on each of the school district samples, along with specific market areas. Linear regression statistics, such as the coefficient of determination (R squared) and the P-value, identify the reliability and significance, respectively, of the regression outcome, namely, the independent variable of time. An annual time adjustment for each market area sample was produced. Analysis was then performed on each school district sample to determine the appropriate annual time adjustment to be employed, or if a time adjustment was warranted. Once the market areas annual time adjustment was determined, a monthly time adjustment was calculated. An initial set of time adjustments were developed. Based on an analysis of the time adjustment, a final time adjustment, if warranted, was established for the 2017 tax year.

How Estimates are reviewed

Field Review

The analyst identifies individual properties in critical need of field review through sales ratio analysis. Sold properties with a high variance in sales ratios are field reviewed on a monthly basis to check for accuracy of data characteristics. If data inaccuracies are found in a large percentage of the sold properties, the entire neighborhood is flagged for field review by the appraisal staff in their annual work plan.

As the district's parcel count has increased through new home construction, and the homes constructed in the boom years of the late 70's and early 80's experience remodeling, the analysts are required to perform the field activity associated with transitioning and high demand neighborhoods. The increased sales activity in the area has also resulted in a more substantial field effort on the part of the analysts to review and resolve sales outliers. Additionally, the analysts frequently field reviews subjective data items such as quality of construction, condition, and physical, functional and economic obsolescence, factors contributing significantly to the market value of the property. After preliminary estimates of value have been determined in targeted areas, the analyst takes valuation documents to the field to test the computer-assisted values against his own appraisal judgment. During this review, the analyst is able to physically inspect both sold properties and unsold properties for comparability and consistency of values.

Given the time required to conduct a routine field review of all properties, homogeneous properties consisting of tract housing with a low variance in sales ratios and other properties having a recent field inspection date are value reviewed in the office. Valuation reports comparing previous values against proposed and final values are generated for all residential improved and vacant properties. The dollar amount and percentage of value difference are noted for each property within a delineated neighborhood allowing the analyst to identify, research and resolve value anomalies before final appraised values are released. Previous values resulting from a hearing protest are individually reviewed to determine if the value remains appropriate for the current year.

Once the analyst is satisfied with the level and uniformity of value for each neighborhood within his area of responsibility, the estimates of value go through a shift process from CAMA to an ad valorem administrative file for noticing. A critical element of the shift process is value edits, or low and high value limits set for each neighborhood by the analyst. Each parcel is subject to the value parameters appropriate for its neighborhood. If one of the parcel's component values, land and improvement, or total value fails the value edits, the parcel does not shift and is placed on a problem tracking report to be resolved by the analyst. Although the value estimates are determined in a computerized mass appraisal environment, value edits afford the analyst an individual look at value anomalies before the value is released for noticing.

Once the proposed value estimates are finalized, the analyst reviews the sales ratios by neighborhood and presents pertinent valuation data, such as, history of hearing protest, sale-to-parcel ratio, and level of appraisal to the Chief Appraiser for final review and approval. The primary objective of this review is to ensure that the proposed values have met preset appraisal standards.

Appraisal Performance tests used and performance measures attained

The primary analytical tool used by the analysts to measure and improve performance is the ratio study. This ensures that the appraised values that are produced meet the standards of accuracy in several ways. Overall sales ratios are generated for each ISD by quarter to allow the analyst to review general market trends within their area of responsibility, and provide an indication of market appreciation over a specified period of time. Several sets of neighborhood sales ratios on each of the delineated residential neighborhoods are produced prior to the setting of preliminary values and after finalization of appraised values. The neighborhood descriptive statistics, along with frequency distributions and scatter diagrams are reviewed for each neighborhood being updated for the current tax year.

The purpose of the district's ISD ratio study is to evaluate the relationship between appraisals and sale prices as of the January 1 assessment date. The district's ratio studies were designed and prepared, to the maximum extent possible, under the guidelines set forth in the International Association of Assessing Officers (IAAO) Standard on Ratio Studies.

A ratio study was produced for each school district using the preferred study period from January 2016 – June 2017, if it provided an adequate sample size. If the preferred study period did not result in an adequate sample (a minimum of 10 observations), the sample was supplemented with additional months of available sales data. The variation of the study period did not create inconsistency in school district results. The sample data is assumed to be normally distributed and to represent the population of sold and unsold homes within each school district.

Sales were screened to ensure that they reflect, to the extent possible, the conditions contained in the definition of market value. Sales that were identified as invalid transactions due to atypical financing, sales between relatives or corporate affiliates, forced sales, estate sales, or sales of convenience were excluded from the study. Also excluded from the study were partially incomplete new construction in our building permit file and accounts in the problem resolution process. The exception to the exclusion rule involved Shared CAD accounts being held while awaiting the overlapping CADs' values.

RESIDENTIAL STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

NAME	TITLE	BTPE NO.	TYPE OF ASSISTANCE
Gary Gallant	Chief Appraiser	66670	Plans and Directs Valuation Activities
Karen Ivy	Deputy Chief Appraiser	67618	Supervises Valuation Activities
Jonathan Huebner	Appraisal	74579	Valuation Activities in ISD
James Cody Wars	Appraisal	74580	Valuation Activities in ISD
Kelly Denman	Appraisal	74937	Valuation Activities in ISD

Commercial Valuation

INTRODUCTION

Scope of Work

This mass appraisal assignment includes all commercially classed real property assigned to the commercial valuation appraisers and located within the jurisdiction of Trinity County and overlapping appraisal districts. Commercial appraisers appraise the fee simple interest of properties according to statute. However, the affect of easements, restrictions, encumbrances, leases, contracts or special assessments are considered on an individual basis, as is the appraisement of any non exempt taxable fractional interests in real property (i.e. certain multi-family housing projects). Fractional interests or partial holdings of real property are appraised in fee simple for the whole property and divided programmatically based on their prorated interests.

Procedure for Collecting and Validating Data

The data used by the commercial appraisers includes verified sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.). Other data used by these appraisers includes actual income and expense data (typically obtained through the hearings process), actual contract rental data, leasing information (commissions, tenant finish, length of terms, etc.), and actual construction cost data. In addition to the actual data obtained from specific properties, market data publications are also reviewed to provide additional support for market trends. Other publications are used for capitalization rates, typical holding period's for real estate investments, interest rates and other pertinent real estate criteria.

In terms of commercial sales data, Trinity CAD receives a copy of the deeds recorded in Trinity County that convey commercially classed properties. The deeds involving a change in commercial ownership are entered into the sales information database and researched to obtain the pertinent sale information. For those properties involved in a transfer of commercial ownership, a sale file is produced which begins the research and verification process. The initial step in sales verification involves a computer-generated questionnaire that is mailed to both parties in the transaction (Grantor and Grantee). If a questionnaire is not returned within thirty days a second questionnaire is mailed. If a questionnaire is answered and returned, the documented responses are recorded into the computerized sales database system. If no information is provided, verification is then attempted via phone calls to both parties. If the sales information is still not obtained, other sources are contacted such as the brokers involved in the

sale, property managers or commercial vendors. In other instances sales verification is obtained from local appraisers or others that may have the desired information. Finally, closing statements are often provided during the hearings process. The actual closing statement is the most reliable and preferred method of sales verification. After the sales data has been keyed into the database, the data is reviewed to maintain quality control.

Annually, prior to the hearing season and after sales have been researched, verified, keyed into the database, and quality control has been completed, the sales data are summarized and produced into book form. The confirmed sales in the vacant land sale and commercial improved sale books are categorized by property and use type and are sorted by location and chronological order. These books are available to the public for use during hearings, and are also used by the Trinity CAD appraisers during the hearings process.

Highest and Best Use Analysis

The highest and best use is the most reasonable and probable use that generates the highest present value of the real estate as of the date of valuation. The highest and best use of any given property must be physically possible, legally permissible, financially feasible, and maximally productive. For improved properties, highest and best use is evaluated as improved and as if the site were still vacant. This assists in determining if the existing improvements have a transitional use, interim use, nonconforming use, multiple uses, speculative use, excess land, or a different optimum use if the site were vacant. For vacant tracts of land within this jurisdiction, the highest and best use is considered speculative based on the surrounding land uses. Improved properties reflect a wide variety of highest and best uses which include, but are not limited to: office, retail, apartment, warehouse, light industrial, special purpose, or interim uses. In many instances, the property's current use is the same as its highest and best use. This analysis insures that an accurate estimate of market value (sometimes referred to as value in exchange) is derived.

On the other hand, value in use represents the value of a property to a specific user for a specific purpose. This is significantly different than market value, which approximates market price under the following assumptions: (1) no coercion of undue influence over the buyer or seller in an attempt to force the purchase or sale, (2) well informed buyers and sellers acting in their own best interests, (3) a reasonable time for the transaction to take place, and (4) payment in cash or its equivalent.

Model Specification

The commercial valuation function is divided into five improved property valuation groups and a vacant commercial land group. The improved real property appraisal responsibilities are categorized according to major property types of multi family or apartment, office, retail, warehouse and special use (i.e. hotels, hospitals, and nursing homes).

The cost approach to value is applied to all real property. This methodology involves the utilization of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on the Marshall Swift Valuation Service. This approach also employs the sales comparison approach in the valuation of the underlying land value. The income approach to value was applied to the real

property that is typically viewed by market participants as “income producing” and for which the income methodology is considered a leading value indicator.

The sales comparison (market) approach was utilized not only for estimating land value but also is comparing sales of similarly improved properties to each parcel on the appraisal roll. All three

Approaches to value were considered in estimating market value for each property, the most applicable of which are given primary emphasis.

Area Analysis

Data on regional economic forces such as demographic patterns, regional locational factors, employment and income patterns, general trends in real property prices and rents, interest rate trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources. Information is obtained from real estate publications and sources such as the Real Estate Center at Texas A & M University. Continuing education in the form of IAAO, Texas Association of Assessing Officers (TAAO), Texas Association of Appraisal

Districts (TAAD) and Texas Department of Licensing and Regulation (TDLR) courses, and real estate seminars provide district employees a current economic outlook on Trinity County’s real estate market. Strict adherence to these procedures ensures that appraisers consider pertinent factors and trends about the forces within the governmental bodies and cities in Trinity County and within the geographic boundaries of Trinity CAD.

Neighborhood Analysis

The neighborhood is comprised of the land area and commercially classed properties located within the boundaries of this taxing jurisdiction. This area consists of a wide variety of property types including residential, commercial and industrial, and vacant acreage. Neighborhood analysis involves the examination of how physical, economic, governmental and social forces and other influences affect property values. The effect of these forces is also used to identify, classify, and organize comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. In the mass appraisal of commercial properties these subsets of a universe of properties are generally referred to as market areas or economic areas.

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

The geographic boundaries as well as, income, occupancy and expense levels and capitalization rates by age within each economic area for all commercial use types and its corresponding income model may be found in the Commercial Income Valuation Manual.

Market Analysis

A market analysis relates directly to market forces affecting supply and demand. This study involves the relationships between social, economic, environmental, governmental, and site

conditions. Current market activity including sales of commercial properties, new construction, new leases, lease rates, absorption rates, vacancies, allowable expenses (inclusive of replacement reserves), expense ratio trends, and capitalization rate studies are analyzed. Local publications are also reviewed to lend detailed support to the various assumptions utilized in the valuation of real estate.

Model Calibration

Model calibration involves the process of periodically adjusting the mass appraisal formulas, tables and schedules to reflect current local market condition. Once the models have undergone the specification process, adjustments can be made to reflect new construction procedures, materials and /or costs, which can vary from year to year. The basic structure of a mass appraisal

model can be valid over an extended period of time, with trending factors utilized for updating the data to the current market conditions. However, at some point, if the adjustment process becomes too involved, the model calibration technique can mandate new model specifications or a revised model structure.

Cost Schedules

The cost approach to value is applied to all improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on the Marshall Swift Valuation Service. Cost models include the derivation of replacement cost new (RCN) of all improvements. These include comparative base rates, per unit adjustments and lump sum adjustments. This approach also employs the sales comparison approach in the valuation of the underlying land value. Time and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost service is used as a basis for the cost models, locational modifiers are necessary to adjust these base costs specifically for Trinity County. The national cost services provides these modifiers.

Depreciation schedules are developed based on what is typical for each property type at that specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. Schedules have been developed for improvements with 15, 20, 30, 40, 50 and 60 year expected life. These schedules are then tested to ensure they are reflective of current market conditions. The actual and effective ages of improvements are noted in CAMA. Effective age estimates are based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and

its competitive position in the marketplace. Effective age estimates are based on 3 levels of renovation and are described in the Commercial Data Collection Manual.

Market adjustment factors such as external and /or functional obsolescence can be applied if warranted. A depreciation calculation override can be used if the condition or effective age of a property varies from the norm by appropriately noting the physical condition and functional

utility ratings on the property data characteristics. These adjustments are typically applied to a specific property type or location and can be developed via ratio studies or other market analysis. Accuracy in the development of the cost schedules, condition ratings and depreciation schedules will usually minimize the necessity of this type of an adjustment factor.

Income Models

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

The projected vacancy and collection loss allowance is established from actual data furnished by property owners and local market publications. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an effective gross rent.

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

Allowable expenses and expense ratio estimates are based on a study of the local market, with the assumption of prudent management. An allowance for non-recoverable expenses such as leasing costs and tenant improvements are included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios are developed for different types of commercial property based on use. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for his pro-rata share of taxes, insurance and common area maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Under this scenario, if the total operating expense in year one (1) equates to $8.00 per square foot, any increase in expense over $8.00 per square foot throughout the remainder of the lease term would be the responsibility of the tenant. As a result, expense ratios are implemented based on the type of commercial property.

Another form of allowable expense is the replacement of short-lived items (such as roof or floor coverings, air conditioning or major mechanical equipment or appliances) requiring expenditures

of large lump sums. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves.

Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves) from the effective gross income yields an estimate of net operating income. Rates and multipliers are used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers also vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market. These procedures are documented in the Income Valuation Manual. The last time this manual was updated was in 2016.

Capitalization analysis is used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property.

Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analysis, can be derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. In addition, overall capitalization rates can be derived from the built-up method (band-of-investment). This method relates to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications.

Rent loss concessions are made on specific properties with vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized occupancy. The rent loss is calculated by multiplying the rental rate by the percent difference of the property's stabilized occupancy and its actual occupancy. Build out allowances (for first generation space or retrofit/second generation space as appropriate) and leasing expenses are added to the rent loss estimate. The total adjusted loss from these real property operations is discounted using an acceptable risk rate. The discounted value (inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions) becomes the rent loss concession and is deducted from the value indication of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's actual occupancy is less than stabilized occupancy a rent loss deduction may be estimated.

Sales Comparison (Market) Approach

Although all three of the approaches to value are based on market data, the Sales Comparison Approach is most frequently referred to as the Market Approach. This approach is utilized not only for estimating land value but also in comparing sales of similarly improved properties to each parcel on the appraisal roll. Pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year in order to obtain relevant information that can be used

in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the Cost Approach, rates and multipliers used in the Income Approach,

and as a direct comparison in the Sales Comparison Approach. Improved sales are also used in ratio studies that afford the analyst an excellent means of judging the present level and uniformity of the appraised values.

Based on the market data analysis and review discussed previously in the cost, income and sales approaches, the cost and income models are calibrated and finalized. The calibration results are keyed to the schedules and models on the mainframe CAMA system and applied to all commercial properties. The schedules and models are summarized in the Commercial Manual. This manual is provided to appraisers and is made available to the public in an easy to understand format.

How Estimates are reviewed

Field Review

Commercial appraisers field review, to the extent possible, properties or economic areas experiencing remodeling, renovations, or retrofits, changes in occupancy levels or rental rates, new leasing activity, new construction, or wide variations in sale prices. Additionally, the analyst frequently field review subjective data items such as building class, quality of construction (known as cost modifiers), condition, and physical, functional and economic obsolescence factors contributing significantly to the market value of the property. In some cases field reviews are warranted when sharp changes in occupancy or rental rate levels occur between building classes or between economic areas. With preliminary estimates of value in these targeted areas, the analyst test computer assisted values against their own appraisal judgement. While in the field, the appraiser physically inspects sold and unsold properties for comparability and consistency of values.

Office Review

Office reviews are completed on properties not subject to field inspections and are performed in compliance with the guidelines contained in the Commercial Manual. The Commercial Manual outlines the application of the three approaches to value (including Discounted Cash Flow-DCF). The manual details derivation of final value estimates by property use type. This manual is maintained and updated frequently. The last update of the Commercial Manual was in 2016.

Office review consists of analyzing the pertinent data for each property, as well as comparing the previous values (two year value history) to the proposed value conclusions of the various approached to value. Value reports show proposed percentage value changes, income model attributes or overrides, economic factor (cost overrides), and special factors affecting the property valuation such as remodeling, prior year litigation, and a three-year sales history (USPAP property history requirement). The appraiser may review methodology for appropriateness to ascertain that it was completed in accordance with USPAP or more stringent statutory and district policies. This review is performed after preliminary ratio statistics have been applied. If the ratio statistics are generally acceptable overall, the review process is focused primarily on locating skewed results on an individual basis. Previous values resulting from protest hearings are individually reviewed to determine if the value remains appropriate for the

current year based on market conditions. Each appraiser's review is limited to properties in their area of responsibility by property type (improved) or geographic area (commercial vacant land).

Once the appraiser is satisfied with the level and uniformity of value for each commercial property within their area of responsibility, the estimates of value go through a shift process from CAMA to an ad valorem administrative file for noticing. A critical element of the shift process is value edits, or low and high value limits set for each use type by division management. Each parcel is subjected to the value parameters appropriate for its use type. If one of the parcel's component values exceeds the permissible change in value range it "fails the value edits". If an account fails one or more value edits, the parcel does not shift and is placed on a problem tracking system. A report is produced by use type that details the failure to shift status allowing the analyst to review and resolve the value. Although the value estimates are processed in a computerized mass appraisal environment, value edits enable an individual parcel review of value anomalies before the estimate of value is released for noticing.

Appraisal Performance tests used and performance measures attained

Statistical and Capitalization Analysis

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

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

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

Potential gross rent estimates, occupancy levels, secondary income, allowable expenses (inclusive of non-recoverable and replacement reserves), net operating income and capitalization rate and multipliers are continuously reviewed utilizing frequency distribution methods or other statistical procedures or measures. Income model conclusions are compared to actual

information obtained on individual commercial properties during the hearings process as well as information from published sources and area vendors.

Sales Ratio Studies

Overall sales ratios are generated by land use type from the sales database and CAMA semi-annually (or more often in specific areas) to allow appraisers to review general market trends in their area of responsibility. The appraisers utilize desktop applications such as MS ACCESS and EXCEL programs to evaluate subsets of data by economic area or a specific and unique data item. On the desktop, this may be customized and performed by building class and age basis. In many cases, field checks may be conducted to insure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics. These ratio studies aid the appraiser by providing an indication of market activity by economic area or changing market conditions (appreciation or depreciation).

Comparative Appraisal Analysis

Commercial appraisers perform an average unit value comparison in addition to a traditional ratio study. These studies are performed on commercially classed properties by property use type (such as apartment, office, retail and warehouse usage or special use). The objective to this evaluation is to determine appraisal performance of sold and unsold properties. Commercial appraisers examine average unit prices of sales and average unit appraised values of the same parcels and the comparison of average value changes of sold and unsold properties. These studies are conducted on substrata such as building class and on properties located within various economic areas. In this way, overall appraisal performance is evaluated geographically, by specific land use to discern whether sold parcels have been selectively appraised. When sold parcels and unsold parcels are appraised equally, the average unit values are similar. These horizontal equity studies are performed prior to annual noticing.

COMMERCIAL STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

NAME	TITLE	BTPE NO.	TYPE OF ASSISTANCE
Gary Gallant	Chief Appraiser	66670	Supervises commercial valuation
Karen Ivy	Deputy Chief Appraiser	67618	Assists in supervision of commercial valuation
Western Appraisal	Contract Appraisal Firm		Apartment valuation
Western Appraisal	Contract Appraisal Firm		Valuation of office property
Western Appraisal	Contract Appraisal Firm		Valuation of retail property
Western Appraisal	Contract Appraisal Firm		Maintains and updates income models
Western Appraisal	Contract Appraisal Firm		Valuation of vacant land

Industrial Valuation

INTRODUCTION

Scope of Work

The contract appraisers are responsible for developing fair, uniform market values for improved industrial properties and industrial vacant land. The contractors are also responsible for the valuation of all tangible general industrial personal property in Trinity County. There are approximately 15 parcels of industrial real property in Trinity County, of which 15 are improved parcels and –0- are vacant properties. The contract appraisers appraise all parcels of tangible industrial personal property.

Procedure for Collecting and Validating Data

The contract appraisal staff inspects their assigned properties to obtain information about buildings, site improvements, process and shop equipment, and various items of personal property. In addition, contract appraisal personnel use information provided by property owners concerning the cost to purchase, install, and construct items of real and personal property. The individual characteristics of the property being appraised are the primary factors that drive the appraised value.

An extended range of variations may exist within the same class of industrial property, and there are a multitude of property types within the industrial category. For this reason, effective data collection procedures would be very difficult to organize in a single comprehensive manual. The district has adopted the guide for Marshall & Swift Commercial Building System and the companion data acquisition forms to standardize data collection for buildings assigned to contract appraisal staff. The data generated by these forms enables the appraiser to use the software to value industrial buildings.

Industrial personal property also consists of many different classes of assets with a wide range of variation within each class. The district has adopted the convention of listing assets and estimating effective age of assets in the field. The field listing is then compared with information furnished by property owners during the final valuation review.

The Trinity-Groveton Consolidated Tax Offices and the Trinity County Tax Office supplied the original real and personal property data used by Trinity CAD. Since that time, the contract appraisal personnel have updated that information based on field review. As new facilities are built, the contract appraisal personnel collect all the real and personal property data necessary to value the property initially, and thereafter, update the information when the property is again

visited. Building permit information is received from the cities and from the county when a facility is being built outside an incorporated city. Other sources of data include publications such as the Texas Register regarding waste control permits, various refining and chemical industry magazine, and Texas Industrial Expansion articles on new construction.

Contract appraisal personnel annually or periodically visit assigned plants. The frequency of the visit is determined by the nature of the business conducted at each facility. For example, refineries and chemical plants are continually changing or adding to processes to extract greater efficiencies or make new products, but machine shops may not add or remove equipment over a period of two or more years.

The contract appraisers take with them the historical data on the buildings and site improvements and the previous listing of personal property at the facility being visited. Changes to the existing structures and personal property are noted and that information is used for value estimation purposes. If cost information for the real or personal property is supplied later, the field data can be compared to that information to judge the accuracy of the information.

The nature of the business and whether or not the contract appraisal firm has the staff resources available determines which properties is valued by the contract firm and which properties are valued by district staff. New contract appraisers receive on-the-job training by accompanying appraisers who have performed field visits and appraisal functions for a number of years. Each contract appraiser is responsible for the completeness and correctness of their valuation work, but a new appraiser is encouraged to seek the advice of experienced appraisal staff as regards their value estimates.

Highest and Best Use Analysis

The current use of the property is generally the highest and best use of that property. Industrial facilities are most commonly located in areas that support industrial use. In areas where mixed use does occur, the contract appraiser estimates the effect of this factor on highest and best use.

Model Specification

Area Analysis

The scope of market forces affecting industrial products and the capital goods used in the production process tends to extend beyond regional considerations. The effects of information and transportation technology are such that most industrial market forces are measured globally. One exception to this general concept is the market for industrial land. The pricing of land tends to be closely tied to possible alternative uses in the area. For this reason, appraisers assigned to land valuation analyze market forces for specific areas and adjust land value schedules appropriately.

Neighborhood Analysis

Neighborhood analysis is not performed due to the non-homogeneous nature of the property type. Industrial properties do not have the type of generic “sameness” that is appropriate for neighborhood models.

Market Analysis

Market analysis is the basis for finalizing value estimates on industrial properties. Even though many industrial properties are unique in nature, the market for this type property is analyzed to see how market forces affect the value of similar properties. Industrial properties such as machine shops, have many similar facilities that can be compared to the subject property in terms of type and size of equipment, type of property fabricated or serviced at the subject facility, and other factors. Those similarities help the appraiser estimate the value of the subject property. However, some facilities, such as specialty chemical plants, are so unique in nature that the appraiser must use the closest available plant in terms of output quantity, type of product manufactured, and other factors to estimate the value of the subject property.

Many industrial properties use the same type of building and, depending on the type of business, may use the same type of manufacturing or service equipment. However, the manner in which the entire business operation is put together makes that particular facility unique. Information from similar businesses are used to evaluate the real and personal property values at a particular business, but the individual characteristics of the business being reviewed determine the value estimation.

Many of the buildings encountered at industrial facilities are generic in construction, such as pre-engineered metal buildings. The cost per square foot to construct these type structures can be used to estimate values at facilities that have similarly constructed buildings. However, the building as constructed will have differences that must be taken into account when estimating the final value of the property being reviewed.

A similar analysis is used for personal property. Many personal property items, such as furniture and fixtures, computers, and even machinery and equipment are generic in construction, but individual characteristics that affect value, such as usage, environment where used, and level of care will have an effect on the final value estimation. When cost data for this type property is available and considered reliable, it is used for value estimation purposes at other plant facilities. However, on-site inspection and information provided by the property owner will affect the final value.

Model Calibration

The schedules used are an integration of Marshall & Swift Commercial Building Valuation System for real property improvements. The real property valuation schedules are updated periodically through data supplied by Marshall & Swift. The valuation schedule incorporated into the industrial plant database is updated annually using a calculated index factor compiled from data in Chemical Engineering Magazine.

Trinity CAD develops schedules based on indexed Marshall & Swift depreciation factors for use in the valuation of all business and industrial property. The appraisal staff updates these schedules annually.

How Estimates are reviewed

Field Review

The contract appraisal staff periodically reviews their assigned real and personal property accounts where there is evidence of change, and when there is not, these accounts are revisited on a two to three-year cycle. Certain properties are reviewed annually because past experience shows that changes are occurring continually in the real or personal property at that facility.

The results of prior year hearings and indication of building permits being issued are another source of required field visits. Many times during hearings, issues are presented that cause a value adjustment. Those issues must be field checked to see if these influences will be on going and warrant permanent value adjustment or are transitory and permanent adjustment is not warranted. This information needs to be recorded so the appraiser will be better able to estimate the property value. Building permits must be field checked to see what effect these have on existing structures. Any new construction is noted and the information necessary to value the structure is recorded. Additionally, any structure demolition is noted so the improvement value can be adjusted accordingly. Part of the field review includes noting any land characteristics that would affect the land value. The district appraisal staff values all land for the properties over which it has responsibility, including those properties assigned to contract appraisal firms. The contract appraisal firms must advise the district of any characteristics that would affect the value of the land associated with that assigned facility.

Office Review

All properties not subject to field review are reviewed in the office by the contract appraisers assigned to particular real or personal properties. The office review relies on historical information in the real or personal property file as the basis for deciding on the estimated value to be placed on the property for the current tax year.

When valuing real property, the characteristics of the property being reviewed are the driving force in value estimation. Experience in valuing other real property, such as a similar building elsewhere, helps the appraiser decide the estimated value to be placed on the subject improvements.

When valuing personal property, the type of furniture, equipment, and computers will be used along with any cost data provided by the property owner to estimate the value. Experience in valuing similar property at other facilities will help the appraiser estimate the value of the subject facility. Individual characteristics of the property, such as usage and maintenance will have a bearing on the value calculated by use of schedules.

Appraisal Performance tests used and performance measures attained

Sales Ratio Studies

Typically, there are not enough sales of industrial properties to show representative ness of that class of property in a ratio study. Ratio studies of industrial properties usually have to rely on independent appraisals as an indicator of market values.

Comparative Appraisal Analysis

This type of analysis is usually not done on industrial properties due to the unique nature of the property, and also, because of time and budget constraints regarding available appraisal staff. A jurisdiction challenge filed with the Appraisal Review Board is generally the only reason for an analysis of this nature. If a jurisdiction challenge is received on a category of property, the appraisers assigned to those accounts will research the appraisal roll to see what other similar properties exist. The real property values can be compared on an average value per square foot of structure basis, but the differences from one facility to another must be carefully compared because it is unlikely that two different facilities are going to build like improvements and use them in similar ways. Similarly, the personal property values can be compared per category, such as furniture and fixtures, machinery and equipment, but the same comparison of the type of and use of the property must be examined to ensure property comparability.

NAME	TITLE	BTPE NO.	TYPE OF ASSISTANCE
Pritchard and Abbott	Contract Firm		Appraises telephone utilities and cable companies
			Appraises refineries and chemical plants
			Appraises industrial plants and personal property
			Appraises chemical plants and paper mills
			Appraises refineries and industrial plants
			Appraises chemical plants and personal property
			Appraises Utility real and personal property
			Appraises Minerals

Business Personal Property Valuation

INTRODUCTION

Scope of Work

The personal property appraisers are responsible for developing fair and uniform market values for business personal property located within the district. There are four different personal property types appraised by the personal property appraisers: Business Personal Property accounts; Leased Assets; Vehicles; and Multi-Location Assets. There are approximately 800 business personal property accounts located in Trinity County. The district reappraises all personal property annually.

Procedure for Collecting and Validating Data

A common set of data characteristics for each personal property account in Trinity County is collected in the field and data entered to the mainframe computer. The property characteristics data drives the computer-assisted personal property appraisal (CAPPA) system. There is one appraiser assigned to the discovery and collection of business personal property data.

Personal property data collection procedures are published and distributed to all appraisers involved in the appraisal and valuation of personal property. The appraisal procedures are reviewed and revised to meet the changing requirements of field data collection. The most recent revision of the personal property data collection procedures was in 2016.

Sources of Data

Business Personal Property

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

Vehicles and Leased and Multi-Location Assets

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

Highest and Best Use Analysis

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

Model Specification

SIC Code Analysis

Four digit numeric codes, called Standard Industrial Classification (SIC) codes, were developed by the federal government to identify business entities having common attributes. Trinity CAD as a way to delineate personal property by business type uses these classifications.

SIC code identification and delineation is the cornerstone of the personal property valuation system at the district. All of the personal property analysis work done in association with the personal property valuation process is SIC code specific. SIC codes are delineated based on observable aspects of homogeneity and are periodically reviewed to determine if further stratification is warranted.

Model Calibration

Cost Schedules

The analysts build cost schedules based on SIC codes. Cost data from property owner renditions, hearings, Comptroller of Public Accounts state schedules, and published cost guides are utilized to develop the cost schedules. The cost schedules are reviewed as necessary to conform to changing market conditions. The schedules are typically in a price per square foot format, but some SIC codes are in a price per unit format, such as per room for hotels.

Statistical Analysis

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

Final Models: Depreciation Schedule and Trending Factors

Business Personal Property

The primary approach to the valuation of business personal property is the cost approach. The replacement cost new (RCN) is either developed from property owner reported historical cost or from developed valuation models. The trending factors used to develop RCN are based on published valuation guides. The percent good depreciation factors are also based on published

valuation guides. The index factors and percent good depreciation factors are used to develop present value factors (PVF), by year of acquisition, as follows:

PVF=INDEX FACTOR x PERCENT GOOD FACTOR

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

MARKET VALUE ESTIMATE = PVF x HISTORICAL COST

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

Computer Assisted Personal Property Appraisal (CAPPA)

The CAPPA valuation process has two main objectives: 1) Analyze and adjust existing SIC models. 2) Develop new models for business classifications not previously integrated into CAPPA. The delineated sample is reviewed for accuracy of SIC code, square footage, field data, and original cost information. Models are created and refined using actual original cost data to derive a typical replacement cost new (RCN) per square foot for a specific category of assets. The RCN per square foot is depreciated by the estimated age using the depreciation table adopted for the tax year.

The data sampling process is conducted in the following order: 1) Prioritizing Standard Industrial Classification (SIC) codes for model analysis. 2) Compiling the data and developing the reports. 3) Field checking the selected samples. The models are built and adjusted using internally developed software. The models are then tested against the previous year's data. The typical RCN per square foot (or applicable unit) is determined by a statistical analysis of the available data.

CAPPA model values are used in the general business personal property valuation program to estimate the value of new accounts for which no property owner's rendition is filed. Model values are also used to establish tolerance parameters for testing the valuation of property for which prior data years' data exist or for which current year rendered information is available. The calculated current year value or the prior year's value is compared to the indicated model value by the valuation program. If the value being tested is within an established acceptable percentage tolerance range of the model value, the account passes that range check and moves to the next valuation step. If the account fails the tolerance range check, it is flagged for individual review. Allowable tolerance ranges may be adjusted from year to year depending on the analysis of the results of the prior year.

Vehicles and Leased and Multi-Location Assets

Value estimates for vehicles are provided by an outside vendor, "Just Texas" a published book values. An appraiser using PVF schedules or published guides values vehicles that are not valued by the vendor.

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

How Estimates are reviewed

Business Personal Property

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

Vehicles and Leased and Multi-Location Assets

A vehicle master file is received on tape from an outside vendor and vehicles in the Trinity CAD system from the prior year are programmatically matched to current DOT records. The vehicles remaining after the matching process are sorted by owner name and then prioritized by the number of vehicles owned. These vehicles are then matched to existing accounts and new accounts are created as needed. An appraiser using PVF schedules or published guides values vehicles that are not valued by the vendor.

Leasing and multi-location accounts that have a high volume of vehicles or other assets are loaded programmatically if reported by the property owner electronically. Accounts that render by hard copy are either data entered by Trinity CAD or sent to an outside data entry vendor.

After matching and data entry, reports are generated and reviewed by an appraiser. Once proofed, the report is then mailed to the property owner for review. Corrections are made and the account is noticed after supervisor approval.

Appraisal Performance tests used and performance measures attained

The comptroller's annual Property Value Study for personal property uses state cost and depreciation schedules to develop comparative value estimates. These value estimates are compared to TCAD's personal property values and ratios are calculated, along with descriptive statistics that report appraisal performance.

Running the valuation program in a test mode prior to the actual valuation cycle tests new or revised cost and depreciation schedules. This gives the appraisers a chance to make additional refinements to the schedules if necessary.

Staff and Contractors Providing Significant Mass Appraisal Assistance:

Name	Title	BTPE No.	Type of Assistance
Karen Ivy	Deputy Chief Appraiser	67618	Supervisor of Personal Property Valuation
Kelly Denman	Appraiser	74937	Performs Personal Property Model Valuation
Jonathan Huebner James Cody Wars	Appraiser Appraiser	74579 74580	Performs Multi Location Valuation
Karen Ivy	Deputy Chief Appraiser	67618	Performs Commercial Vehicle Valuation