

REAL PROPERTY SCOPE OF WORK FOR DOUGLAS COUNTY, NEBRASKA

Assignment Valuation Date: Jan. 1, 2017

Scope of Work Date: Nov. 1, 2016

The Douglas County assessor is required by state law, Neb. Rev. Stat. §77-1303 to prepare an assessment roll of all taxable property on or before March 25 of each year. The scope-of-work document is a planning-tool requirement for mass-appraisal development and reporting. The county assessor is required to 1) identify the appraisal problem to be solved and assignment conditions; 2) determine and perform the appropriate scope of work to develop credible assignment results; and 3) disclose the scope of work actually performed in the development of the mass-appraisal.

Below is an estimate of the parcels to be appraised by the Douglas County assessor for the 2017 appraisal year. A copy of the appraiser's 2017 budget and any other necessary addenda is attached to this scope-of-work document.

The total parcels of real property to be appraised in Douglas County are summarized below. The totals are based on counts as of Sept. 30, 2016.

Real Property	Total Parcels
a) Residential	179,523
b) Residential Rural	1908
c) Farm >20	119
d) Agricultural >20	1064
e) Agricultural <=20	599
f) Commercial/Industrial	11,885
g) Exempt	18,732
h) Improvement on Leased Land	3560
Total	217390

BACKGROUND

A. Client and intended users:

Mass-appraisals assignment in Nebraska for ad valorem taxation falls under the responsibility of county government. The county board of equalization is identified as the client.

Intended users, identified below, of this mass-appraisal include the state of Nebraska and all of the property-taxing jurisdictions located within Douglas County.

We have identified and considered the actual and intended use, and intended users of our value opinions and conclusions in order to identify the problem to be solved, and to understand development and reporting responsibilities associated with this mass-appraisal.

Intended Use:

The results of this mass-appraisal will be used for ad valorem property-tax purposes. If our real property appraisals are used for other purposes, they will be invalid because they would be outside the scope for which they were developed- ad valorem tax purposes.

B. Effective Date of the Appraisal:

The appraisal date for all real property in the jurisdiction is Jan.1, 2017.

C. Date of the Reported Values:

This mass-appraisal assignment will be completed on or before March 25, 2017. Change-of-value notices for real property are expected to be mailed to property owners on or before May 15, 2017.

Type and Definition of Value:

Real property in Nebraska is defined in Neb. Rev. Stat. §77-103. For ad valorem mass-appraisal assignments in Nebraska, the terms actual and market value are viewed as synonymous. Actual value is defined in Neb. Rev. Stat. §77-112. This definition will be used for all classes of real property. Agricultural or horticultural land is defined in Neb. Rev. Stat. §77-1359. The special valuation method of agricultural or horticultural land is defined in Neb. Rev. Stat. §77-1343. This special-use value does not comply with USPAP rules and is considered a jurisdictional exception.

D. Disclosure of all Assumptions, Limiting Conditions, and Jurisdictional Exceptions:

- 1) All properties will be assessed as fee simple, and free of any and all liens and encumbrances. Each property has been appraised as though under responsible ownership and competent management.
- 2) Surveys of the appraised properties will not be provided. We will rely upon the property ownership map, deeds and other materials to estimate physical dimensions and the acreage associated with subject properties.
- 3) We assume the utilization of the land and any improvements are located within the boundaries of the property described on the appraisal record. It is assumed that there are no

adverse easements, encroachments or trespasses for any parcel that have not already been addressed in the ownership record file or noted in the property record.

- 4) Property inspections, if necessary, will be made before the appraisal date or prior to the date final values are determined. Douglas County will utilize digital imagery, street level, aerial and oblique photography, as well as physical inspections, to complete the six-year inspection requirements.
- 5) Our goal is to re-inspect every parcel within the county at least once every six (6) years. A property may be inspected more frequently if a building permit has been issued, the property has sold, changes have been noted during neighborhood reviews, or detected through aerial or street-level imagery. The date and time of inspections are noted on the property record. It is assumed that there has not been any material change in condition since the latest property inspection, unless otherwise documented on the individual property record.
- 6) It is assumed that there are no hidden or unapparent conditions associated with the properties, subsoil, or structures that would render the properties (land and/or improvements) more or less valuable.
- 7) It is assumed that the properties and/or the landowners are in full compliance with all applicable federal, state, and local environmental regulations and laws.
- 8) It is assumed that all applicable zoning and use regulations have been complied with.
- 9) It is assumed that all required licenses, certificates of occupancy, consents, or other instruments of legislative or administrative authority from any private, local, state, or national government entity have been, or could be obtained for any use on which the value opinions contained within this report are based.
- 10) This office does not receive hazardous-condition reports and we are not qualified to detect hazardous materials. Therefore, evidence of hazardous materials, which may or may not be present on a property, will not be documented. As a result, the final opinion of value is predicated upon the assumption that there is no such material on any of the properties that might result in a loss, or change in value.
- 11) Information, estimates, and opinions furnished to us and incorporated into the analysis and final report will be obtained from sources assumed to be reliable, and a reasonable effort has been made to verify such information. However, no warranty is given for the reliability of this information.
- 12) The Americans with Disabilities Act (ADA) became effective Jan.26, 1992. We do not make compliance surveys, nor do we conduct a specific analysis of any property to determine if it conforms to the various detailed requirements identified in the ADA. It is possible that such a survey might identify nonconformity with one or more ADA requirements, which could lead to a negative impact on the value of the properties. Because such a survey has not been requested and is beyond the scope of this appraisal assignment, we did not take into consideration adherence or non-adherence to ADA in the valuation of the properties addressed in this report.
- 13) The development of agricultural land-value estimates for this use value does not comply with USPAP rules and is considered a jurisdictional exception.

- 14) Disclosure of this Scope-of-Work document is governed by the rules and regulations of the Open Records Act, Statute 84-712.05, and is subject to the USPAP Jurisdictional Exception Rule.

E. Disclosure of Extraordinary Assumptions and Hypothetical Conditions:

The use of extraordinary assumptions and/or hypothetical conditions can affect the assignment results of a mass-appraisal. All parcels of property subject to this mass-appraisal were valued based upon known facts about physical, legal and economic characteristics and conditions.

An extraordinary assumption may be used in the appraisal of residential property. During the routine annual physical re-inspection in our jurisdiction, interior inspections will not be made of residences, unless specifically requested by the property owner, or is necessary as part of the appeals process. Our data-collection policy on residential property requires a physical review of exterior property characteristics only. Interior data characteristics for residential property are typically obtained through interviews at the door or questionnaires that are completed by the occupant and mailed to our office or other public sources. It is assumed that the physical condition of the interior of each dwelling is similar to its exterior condition, unless we've received additional information from a qualified source that might trigger an adjustment or require an inspection. A request will be made to inspect the interior of commercial and industrial buildings. If an inspection is unsuccessful, a note will be provided on the property record and estimates will be made as to the quality and quantity of interior fixtures and features.

An extraordinary assumption is used in the appraisal of agricultural property. The valuation of land in agricultural use is based upon sales outside the Douglas County market areas. This statutory requirement restricts the county assessor from considering the highest and best use of the property when developing an agricultural use value estimate for ad valorem purposes. This restriction is considered a USPAP jurisdictional exception.

F. Property Rights Appraised:

Ad valorem appraisals in Nebraska utilize fee-simple interest. A fee-simple estate is absolute ownership of a property unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of police power, eminent domain, escheat and taxation.

G. Scope-of-Work Requirement:

The annual mass-appraisal assignment is prescribed by statutes, regulations, guidelines and annual maintenance specifications promulgated by the Property Assessment Division. The scope of work used to develop this mass-appraisal assignment is also a requirement in the 2016-2017 USPAP Standards Rule 6-2 (j). Information in this document includes disclosure of research and analyses that will be performed, as well as a disclosure of research and analyses that will **not** be performed. When any portion of the work involved significant mass-appraisal assistance from contractors, consultants or professionals who are not directly employed by our office, we will describe the extent of their assistance. The official certification report will contain the names of our appraisal and technical staff, consultants and contracted experts who provided significant assistance in developing the mass-appraisal, in accordance with USPAP Standards Rule 6-9. A certification report will be completed prior to mailing change-of-value notices in 2017.

Douglas County uses a computer-assisted mass-appraisal (CAMA) software application to perform many administrative operations, database-management functions, query tasks, reporting utilities, and technical appraisal processes. All parcels of real property in the county are assigned a unique parcel identification number referred to as the Parcel Number. This number is one of the keys that can be used to identify the computer database parcel record of ownership, sale transactions, property characteristics, valuation, assessment classification, appeals and historic information stored in the CAMA system. The software also includes automated valuation model (AVM) development tools, including a costs module maintained by the vendor, Marshall & Swift Valuation Services. The software is tested, maintained, enhanced and supported by the vendor. The software application is known as RealWare®. The county does not own, change or have access to the original program source code. We also use Microsoft Office, ESRI mapping and other personal computer software to perform analytical studies and prepare work products.

The mass-appraisal process calls for three basic approaches in the valuation of property: the sales-comparison approach, cost approach, or income approach. It will not be appropriate or possible to develop value estimates using all three approaches on all properties in the county. It is our intention to appraise all of the property in the county under USPAP Standard 6, using the RealWare® application. If it is determined that a complex or unique parcel might not lend itself to being valued using USPAP Standard 6 guidelines, that parcel will be identified with a note on the CAMA record. Properties of this nature will be addressed using accepted appraisal techniques. If budgetary constraints will not permit the hiring of a qualified appraiser, steps will be taken, as outlined in the Competency Rule section of USPAP, to become competent to value the properties.

H. Identify the Properties to be Appraised:

In Nebraska, a value review of all active parcels of real property in the county is required on an annual basis. All property values in the county will be examined prior to the mailing of valuation notices.

I. Opinion of Highest and Best Use:

Unless otherwise stated on a parcel record, the highest and best use will be the actual use of the property as of the valuation date. For parcels that are unoccupied on the January 1 appraisal date, the immediate prior use will be considered the highest and best use. For land in agricultural production, an opinion of special-use value, based upon soil productivity and actual use during the most recent growing season, will prevail over any other highest and best use. Property in transition from a prior/current use to a different use will be evaluated on a case-by-case basis and valued based on a highest and best use that is required in order to produce a credible, market value, which is supported by evidence available to the county before the valuation is established.

J. Results of Ratio Study Testing:

In Nebraska, the appraisal/sales ratio-study performance measures are the primary tools used to evaluate the mass-appraisal outcome. The study produces statistical indicators of appraisal level and uniformity, based upon samples of valid real estate sales. As a first step in every annual revaluation cycle, ratio studies are prepared for the subclasses of real property, as well as various subcategories and strata. Residential and commercial/industrial property receives the most scrutiny. If model performance needs improvement in order to meet ratio-study performance standards, model recalibration, re-specification or property re-inspection might be required. Not all property classes, strata, or subcategories will achieve ideal ratio-study performance measures. Not all property classes, strata, or subcategories can be evaluated through statistical performance measures when there is an insufficient level of market activity, valid sales data is scarce, and sample sizes are too small. Perfection is not a requirement in a mass-appraisal. Our office is required to operate within a limited budget. This assignment condition compels us to focus our resources on the most serious appraisal problems. Thus, our time and effort will be devoted to property types and geographic areas in the county that require the most attention during this annual appraisal cycle.

The statistical performance measure for overall appraisal level (by real-property subclass) is the median ratio. The acceptable range for statistical compliance pursuant to Neb. Rev. Stat. §77-5023 is 92 percent to 100 percent (0.92 to 1.00) for all property classes, except agricultural (A), for which the acceptable range is .69 to .75. The primary performance measure for appraisal uniformity is the coefficient of dispersion (COD). The county is guided by minimum performance criteria established by the Property Assessment Division. The measure is expected to be less than 15 to achieve statistical compliance with minimum standards for the residential and 20 for commercial/industrial subclasses. We expect to devote resources, subject to budget and personnel limitations imposed by the county board, to maintain and improve performance in 2017 in areas or property types that appear to be falling out of statistical compliance.

The price-related differential (PRD) is an additional uniformity measure of vertical equity that the state employs for the residential and commercial/industrial subclasses. This measure is expected to fall in the range of 0.98 to 1.03. In order to evaluate statistical compliance, 95 percent confidence intervals are developed around the statistical point estimate. A portion of the confidence interval range is expected to overlap or fall within the specified range of acceptance for this goal to be met. We will be evaluating our models and final review procedures before setting values, in order to keep PRD results in the acceptable range of .98 to 1.03.

Some areas might be difficult from which to attain uniformity performance measures in the county due to a lack of valid sales, data-accuracy issues and an inordinate number of foreclosures which led to REO (real estate owned by bank) sales that have impacted the overall market. REO sale prices reflect some level of distress from a normal market, even those that were listed on MLS. These listings, and the subsequent discounted sale prices, impact the expectations for non-distressed properties that remain on the market, or that ultimately sell. Lack of validated sales, and potentially unreliable outdated interior data place significant challenges on the model-calibration process.

K. Model specification considered, data requirements, and model(s) chosen:

Land Valuation

Model Specification:

The following mass-appraisal techniques may be utilized in developing market land values:

- Sales comparison
- Abstraction
- Allocation
- Cost of development

Data Requirements:

Vacant land sales are continually collected, confirmed, screened and added to the sale history database and spreadsheet land templates. Our spreadsheet templates will incorporate valid sales from Oct.1, 2014 to Sept. 30, 2016. Older sales may be reviewed and utilized, if needed. Land values can be influenced by such factors as size, shape and topography of the parcel. Lots used for residential and commercial purposes are influenced by geographic location, amenities and utilities available to the site. These factors, as well as others identified in our analysis, will be accounted for in the model or adjusted for on a parcel-by-parcel basis.

As referenced previously, land in agricultural special use is appraised using sales of agricultural use properties outside the Douglas County market area. Special-Use-value land rates are developed and promulgated by the Property Assessment Division. There is however, some latitude to modify the land value by considering adverse influence factors that might impact agricultural production on the subject parcel. Parcels with adverse influences will be reviewed during the annual field inspection and adjustments will be considered to the use value. We develop market value estimates for agricultural land for those properties that have agricultural use but do not qualify for special-use value.

Data Collection Procedures:

Vacant-land sales will be qualified as market-value indicators from a review of real-estate-sales questionnaires (521s) and confirmed or screened through follow-up interviews and/or field checks, when necessary. The sold parcels will be noted in the CAMA system. Sale information will be entered on the property record and extracted to spreadsheets for analysis. The following property-characteristic data will be considered for vacant land and undeveloped sites: neighborhood life cycle and desirability, frontage, depth, area or size, shape, utilities, zoning, and positive or adverse influences. Douglas County currently uses a discounted cash-flow analysis to determine the current value of development land. Generally, we apply this discounted value to all vacant lots in the subdivision that are held for resale and are in direct competition with each other.

Land characteristics and parcel sizes that might present data-accuracy problems are known, and primarily related to poor section corner and ¼ section corner control used to develop our base cadastral maps. The high quality of our aerial map products and oblique images helps mitigate these problems, but we still must rely on a base layer that changes

much too often when parcels are added or edited. The effect of these changes means that parcel sizes are continually changing in our RealWare® and GIS environments. We rely on parcel maps, provided by our internal cartographers in the county assessor's office, which has resource limitations, as well.

Field inspections will be incorporated into our inspection process, subject to budget and personnel limitations, to help us evaluate land features that are not visible from the street or aerial imagery. Some data characteristics or recent adverse influences may not be considered unless they were brought to our attention and verification can be made by our appraisal staff. These would include undermined areas and subsurface contamination.

A limited number of vacant-land sales require that we look at the allocation and extraction, also referred to as abstraction methods for residential land valuation, with major emphasis on the allocation method. The allocation method looks at the sale prices of improved residential parcels and allocates a value to the land based upon an estimate of what percentage the land value contributes to the total property value (sale price). This contributory ratio is referred to as a Land to Value Ratio or LVR. The LVR can vary based upon the location of the sale in the county, as well as the desirability of the area the sale is in. Sales are entered in our land-analysis spreadsheet application for analysis and review of whether current land rates are appropriate.

We also analyze improved sales, to see if land values appear reasonable, by using the Extraction method. This method removes the depreciated value of the improvements from the time-adjusted sale price. The residual value is deemed to be the estimated value of the land. This residual value is compared to our land value to again determine if current land rates are appropriate.

Model Calibration:

The calibration for each land-valuation model will be performed through a personal computer using spreadsheet software-analysis templates. The model specification and valuation module in the CAMA system is known as computer-assisted land pricing (CALP). Three types of land-valuation models will be developed for use in the county:

- Square foot
- Acreage
- Unit

Residential parcels are valued using the square-foot method, primarily, with larger parcels being valued using an acreage method; a few might use the site method. Commercial parcels are valued using either the site, square foot or acreage methods.

A review of vacant-land sales and land estimates from the allocation and extraction LVR analysis is done, and decisions to change our computer-assisted land pricing (CALP) rates are made based on the results of our analysis.

The square-foot model uses a base-area standard and employs a dollar-value adjustment for any lots that exceed, or recede from the base size. The acreage models operate in essentially the same fashion. Acreage models will be used to value parcels that typically exceed 1 acre in a residential development. Acreage models are typically used to value

commercial parcels that exceed 100 acres. Unit models are typically based on lot sales that are standardized regardless of size. Documentation for land-value-model development and calibration will be available in our 2017 land work files.

The documentation may include:

- Neighborhood delineation maps
- Sales analysis stratified by neighborhood, property class or market area
- Model-selection details and land-pricing coefficients developed (CALP model)

Model Validation:

The primary appraisal performance test used for land-model validation should be the sales ratio study, with major emphasis placed on the median ratio and COD measures obtained from ratio studies. Results of our land-value model testing and validation will be in our 2017 land work files. An explanation will be provided if the land-valuation model does not meet expected performance goals.

Agricultural-Use Value

We will make necessary inspections of all land in agricultural use to verify any changes to the acreage devoted to each primary valuation class. The primary-use valuation classes are: dry cropland, irrigated land, grass (pasture) and timber. Douglas County has ortho-rectified aerial imagery flown every two years. The last flight was in March 2015; this imagery, along with field inspection, if necessary, is used to verify actual use. Our primary method of confirming agricultural use is a visual inspection, but may employ an agricultural-use questionnaire prior to the valuation year. Current and prior-year aerial photo images have been taken in color at six (6)-inch resolution.

Land-value rates are based primarily on sales from outside the county and are attributed to soil productivity units. We use soil survey maps developed and published by the USDA Soil Conservation Service, and classification guidelines developed by PAD to assign each soil type to a productivity group. The acreage of each productivity group and class category is calculated and entered on the subject parcel record. The acreage land values for productivity groups and categories have been developed by PAD and are delivered to our office annually. If we apply adjustments to a subject parcel for adverse influences identified on the land, the rationale will be provided on the property record.

Agricultural Market Value

The market value of agricultural land that does not qualify for the special-valuation method is determined by analyzing sales in the market area. Being an urban, metropolitan area, land sales of any size are generally not purchased for agricultural purposes, except as an interim use, but are for residential or commercial development. These sales are analyzed to ascertain the appropriate base size and rates for our CALP application to determine what agricultural land market values should be.

Cost Approach

Model Specification:

The building-and-improvement-cost model is specified by Marshall Swift, a nationally-recognized provider of construction cost data and software services to appraisers in the public and private sector.

Data Requirements:

Many property-data characteristics are collected for the development of replacement cost new estimates for residential, mobile home, commercial, industrial, agricultural and exempt properties. See RealWare® data-collection manual for a complete description of property characteristics collected to develop improvement cost approach estimates.

Data-Collection Procedures (New Construction):

On-site data collection is initiated after the start of new construction on a parcel. Notification of any new construction or significant remodeling is typically obtained through the issuance of a building permit by the municipality or county. Physical-data characteristics for all approaches to value will be collected or verified during on-site property inspections in the field, in addition to aerial photogrammetric, street-level images and remote sensing sources that employ low level oblique aerial images captured from four cardinal directions.

Quality Assurance Process and Findings:

Property-data characteristics used to develop replacement-cost estimates will be reviewed for accuracy through an internal quality assurance program. Special attention will be paid to reviewing the work of new employees assigned to perform field inspections. An appraisal supervisor will be assigned to review a portion of data-collection work performed by new staff employees. A quality assurance review of their work will be made in accordance with the Appraisal Quality Control section of the Revaluation Maintenance Specifications and will be available for inspection. We follow the quality assurance steps outlined in Section 17 of the Maintenance Specifications and recognize the quality assurance recommendations presented in Section 3.3.4 of the IAAO Standard on Mass-appraisal (2016).

The data of parcels that have recently sold will be checked for data accuracy through a check of measurements and telephone interviews.

Property characteristics that might present the highest incidence of data inaccuracy are those that relate to interior building components and linear wall measurements. The data collector is required to make an attempt to inspect the interior of commercial and industrial buildings. Successful interior inspections will be noted on the property record. Dwellings and buildings on residential parcels do not require an interior inspection. An interview may be conducted with the owner or occupant to collect or verify information about the following building components and construction details:

Number of rooms and bedrooms
Number/type of bathrooms and other plumbing-fixtures counts
Basement area and finish (bedrooms, baths, rec-rooms, etc.)
Fireplaces
Heating and cooling system
Built-in garage area and unfinished utility areas
Floor and wall finishes
Year built and major remodeling/additions/rehabilitation

If an interview is unsuccessful, a post-card door hanger questionnaire will be left on the front door or handed to the occupant. We will not conduct interviews with minor children or household-service employees. Interior characteristic data will be cross-checked against comparable benchmark dwellings or correlated with construction features visible from the exterior. If inconsistencies appear on edit reports, an interior inspection may be requested. Errors that cannot be resolved in the office or through a follow-up phone call will be returned to our field appraisers for another field inspection.

Cost-Model Calibration:

The replacement-cost estimate developed by the Marshall Swift software application is calibrated using a local time/location index, extracted from the market areas in Douglas County. The company provides a locational index, which is based upon a zip code. We will attempt to verify the annual construction-cost index through a comparison of Marshall Swift cost estimates with actual building costs obtained from local contractors for newly-completed buildings, if available. Additional verification of the index will be done by extracting the improvement value from sales of newly-constructed and sold parcels and comparing that value to the RCN. See cost and index work files for the index verification analysis study.

Depreciation study: Valid sales will be used to calibrate depreciation (%Good) tables used for the cost approach for each type or class of property. A sufficient number of recent sales from the local real estate market will not always be available for a comprehensive analysis and complete calibration. If this is the case, appraisal judgment is a required part of the calibration process.

The cost approach calibration process uses sales ratio study measures to evaluate overall model performance. Spreadsheet templates have been developed to assist in the depreciation calibration process and for support of the conclusions in our analysis.

The coefficients required for the mass-appraisal cost model consist of improvement values comprising of the replacement-cost-new estimates for property characteristics and building components and coefficients for building and improvement obsolescence and physical depreciation. Obsolescence and physical-depreciation estimates are based upon the year built, condition (physical component), design, utility (functional obsolescence component) and locational desirability and/or economic obsolescence component ratings. A final coefficient for land value, which is the land-value estimate from our land valuation (CALP) models, is added to the cost, less depreciation estimate for the improvements value, to arrive at a cost-

approach value for each parcel.

Model Validation:

Cost-model-value estimates will be examined for each parcel during the final review process. Major emphasis will be placed on the following statistical measures attained from the sales-ratio study: median ratio, COD and PRD. We recognize appraisal level and uniformity goals cited in IAAO Sales Ratio Standards. The sales ratio study outcome for each market area will be found in our cost study work file.

Sales-Comparison Approach

Model Specification:

The sales-comparison approach is based upon the economic principals of supply and demand, contribution and substitution. The basic model structure we have used in past cycles is additive. This means the value of a residential property can be estimated through a process that adds value for each component, such as living area, garage area, basement area, central air conditioning, bathroom fixtures, etc. Approximately 20 significant property characteristics are typical candidates for consideration in developing the additive model for any given market area (i.e., model area) in the county.

Data Requirements:

The sales-comparison approach has been developed for residential property (one to four unit dwellings). This approach requires a sufficient number of recent valid sales to develop reliable statistical samples for salient characteristic adjustments used in the model. Commercial and industrial properties comprise a wide variety of construction designs, use types, functional requirements, and special building features. These characteristics require a very large database of recent sales information to analyze and use. The quantity and quality of information required to develop credible sales-comparison models for commercial and industrial property is not available within our county, and budgetary constraints limit the extent of research, data collection and information verification that can take place outside the jurisdiction.

Data-Collection Procedures:

Residential-data characteristics considered important for the sales-comparison approach have been collected during routine on-site property inspections in the field. They are part of the master property database used for the cost and income approach.

Process Description:

The sales-comparison approach requires a set of recent valid sales that can serve as equivalent market-value indicators or benchmarks when matched with unsold properties. However, no exact matches between sold and unsold properties will occur in the market-place. To overcome this impediment, sale-price adjustments must be developed to account for any differences between characteristics associated with the set of chosen comparable sales and the subject property. We have developed a sale-history file that archives the property characteristics of parcels as of their date of sale. All properties

within this file, between Oct. 1, 2014 and Sept. 30, 2016, have been verified to be open-market, arms-length transactions that comply with all the criteria necessary to be considered a valid sale or sales, such as some REO sales, that have some degree of distress but are still considered to be valid for purposes of our efforts to determine the market value of a property. Review of sales helps develop a list of the most salient property characteristics to be considered in the sale-price adjustment process. These characteristics will serve as independent candidate variables in a statistical process known as multiple regression analysis (MRA). The work process is called market modeling. Multiple market models have been developed within the county to account for significant economic differences in neighborhood groups, geographic regions, or market areas. The output from this modeling process will produce dollar adjustments for property characteristics (variables or coefficients) that are correlated with sale prices. Some model coefficients (adjustments) may require appraisal judgment if they do not demonstrate a high level of statistical significance, or they enter the model with atypical or unstable values. The annual reappraisal will require many subject parcels to be processed in a very short time frame, using standardized procedures, rigorous methodology, and an appropriate set of selection criteria. This challenge requires a computer assisted search and selection routine. The number of critical property characteristics that will be used in the comparable selection step is typically less than those considered for sale-price adjustments. These market models may be re-calibrated each year using locational factors to account for demand, which is tested against recent sales.

Characteristics Used in the Model:

The list of the candidate variables considered in each market model will be based upon the analysis of valid sales within the market area. Those areas lacking a sufficient number of sales will be compared to other homogeneous market areas for model coefficients.

Characteristics that Might Present Data Inaccuracy:

Interior residential data characteristics will not be verified through a visual confirmation during the routine property inspection process. Interior data is collected and re-verified through an interview with the homeowner or tenant. Sometimes this data is not reported or recorded accurately. Some dwellings have had no interior data verification with the owner or occupant in past years. These parcels have been identified on the property record and are the most likely to contain some errors or omissions. Numerous edits and cross-edit comparisons will be executed and examined before model calibration begins. These tools are expected to flag or filter most suspect characteristic data.

Other Data that Might be Inaccurate:

Although reported sales data is not 100 percent trustworthy, the sales-validation staff will make telephone calls to re-verify unusual transactions or resolve errors or omissions noted on the sales-validation questionnaire. Some highly unusual or abnormal sales may be removed from the analysis to mitigate problems they might cause with the multiple regression analysis.

Model Calibration:

The market model will be calibrated through the multiple-regression analysis (MRA). This will develop values (coefficients) for the candidate variables selected for inclusion in each model. The resulting regression models are additive and linear in nature.

Model Coefficients and Estimates:

An MRA 'market model' estimate will be produced for each residential parcel in that model area. The regression output reports contain the statistical diagnostics and coefficients. It is anticipated that some candidate variables will be forced into the model, such as land values developed through other analytical methods. In some cases, we may constrain or override coefficients that enter the regression model at unexpected adjustment values.

Model Validation:

The model estimates prepared for residential property will be reviewed; each model's performance will be tested using sales-ratio studies. Major emphasis will be placed on the following performance measures attained from the study: median ratio, COD and PRD. If statistical measures do not meet expected goals for any model, an explanation will be provided. See our market modeling work file for the ratio-study reports developed to evaluate model performance.

Income Approach**Model Specification:**

Income-approach models will be developed for several types of commercial and industrial properties in the county. Models have been developed for the property types listed below, in past years:

- Apartment (more than 12 units) – garden style and high-rise
- Retail
- Office
- Restaurant – Fast food
- Warehouse
- Light Manufacturing
- Self-storage facility
- Hotel/Motel

Lease (rent), vacancy, miscellaneous income and operating-expense data will be obtained from annual survey questionnaires, appraisal reports and other outside sources obtained by the county. Requests for operating statements or operating information may be mailed to the owner of record or property manager in an attempt to obtain information useful to the development of an income model for the above commercial property types. Additional data will be acquired from published market-data sources and surveys conducted by accounting, property investment or management firms in the private sector. Financial-property data returned from owners and investors will be entered into spreadsheet application templates for exploration and analysis. This data is treated as confidential; it does not fall under the Nebraska Open Records Act (NRSCS 84-712).

Rental-income models for most single-occupant property types are based upon gross building area and annual rent per square foot. Apartments are based upon apartment design (bedroom/bath units) and associated monthly rental rates. Hotel/motels are modeled by guest sleeping rooms and average daily room rates. Multi-tenant occupancies are generally valued based upon net leasable area (NLA) and annual rent per square foot. Market vacancy rates are used to develop adjusted gross income estimates. Adjusted income may be adjusted further for miscellaneous income to arrive at an effective gross-income estimate.

Direct capitalization will be used for all property types and rates will be developed from the sale of leased properties in the county and from sales in other jurisdictions that are deemed comparable or relevant to the valuation of our subject properties. This information will be compared to national surveys, experiences of our peers in neighboring counties and consultation with private-sector appraisers practicing in our economic region of the state.

In the past, Douglas County has contracted with appraisal consultants for cap-rate studies and appraisal of large office buildings. For 2017, staff has developed a band of investment study to determine the locally-used cap rates by investors to secure loans on local properties. These rates vary by property type and age. The data was obtained through interviews with local investment bankers and developers.

Data Requirements:

The data required by income models is derived from annual income and expense surveys that are mailed to property owners. Some data is collected during the hearing and appeal process. Published industry surveys are read to become more familiar with industry norms and market trends. The actual income and expense questionnaires completed and submitted by property owners is considered confidential and will not be available for public inspection.

Data-Collection Procedures:

Property characteristic data used to develop the income approach will be collected during routine field inspections. Many of the same data elements used to develop cost-approach estimates are used in the income models. Financial data from returned survey questionnaires will be entered into spreadsheet database templates for exploration and analysis.

If a sufficient amount of reliable information can be collected for a group of property types in a neighborhood strata or market area, attempts will be made to develop and evaluate income models.

Property-data characteristics relied upon will be collected or verified during on-site inspections. These include building features, functional use, vacancy rates, physical condition and obsolescence. Operating-expense categories will be based upon property type, and each model-expense category will be identified as a “typical owner” or “tenant” responsibility. Operating expenses will be further specified to reflect age of the structure and investment grade, if sufficient data is obtained. A separate model category will be designated for management expenses. A percentage of effective gross income will be developed to reflect typical professional-management expenses, even if a subject property is owner-operated and no management expenses are reported.

Characteristics that Might Present Data Inaccuracy:

The property features and characteristics most likely to present data inaccuracy are related to interior elements. Some property managers, tenants or owners might not permit an interior inspection of buildings. Some buildings may be closed, vacant, unsound or unsafe. Thus, an inspection might not be possible. Some improvements or use changes might have been made over time, without building permits. Attempts are made to inspect every property in the county at least once every six (6) years. Inspection dates, time, purpose and outcomes are recorded on the property record. Some of this information can be corrected, if needed, during the hearing-and-appeal process, or it might be necessary to schedule an on-site inspection.

Other Data that Might be Inaccurate:

Although reported sales data is not 100 percent trustworthy, the sales validation staff will make telephone calls to re-verify unusual transactions or resolve errors or omissions noted on the sales-validation questionnaire. Some highly unusual or abnormal sales may be removed from the analysis. Income and expense forms might also contain errors or omissions. If these documents are incomplete or appear suspect they can be screened from the database or trimmed from the analysis.

Model Calibration:

Models will be calibrated in spreadsheet templates. Each income model has the following market variables in the mathematical structure: rental income, occupancy rate, miscellaneous income (if applicable), operating expenses, management expense capitalization rate and effective tax rate. Additional adjustments for items such as deferred maintenance or rent loss, if applicable, will be made on a case-by-case basis and in accordance with our valuation procedures set up for each property type.

Calibrated model coefficients will be reviewed and compared to models prepared for the previous valuation cycle. Overall expense ratios will be compared to results from private-sector surveys. Income model estimates developed will be compared to the cost-approach estimates during the reconciliation process. Individual value estimates will be examined, compared to the previous year model values and checked for accuracy.

Model Validation:

We will review all the income-approach value estimates prepared for parcels processed in the CAMA system. Income-model performance will be tested through a sales-ratio study for each property type if a sufficient number of valid sales are available. Major emphasis will be placed on the following performance measures attained from the study: median ratio, COD and PRD.

L. Final Model-Value Testing

A review will ascertain that our local market responds to characteristics analyzed and selected to specify the models. All models will be tested during the final review process to verify that credible estimates of value have been developed for each approach. When model calibration work is completed and closed, we will prepare ratio studies to evaluate overall mass-appraisal-model performance by property type, neighborhood and statutory subclass. If minimum state-mandated statistical performance goals are not achieved, an explanation will be provided. Major emphasis will be placed on the residential and commercial/industrial subclasses. Perfection is not a reasonable goal and some individual model-value outputs might not appear reasonable or credible. These properties might require model-value overrides. In such cases, other tools may be utilized to perform the analysis that more accurately reflects prevailing market behavior. These atypical properties will be identified and the rationale for employing other techniques will be provided in the notes section of the property record. Final ratio-study reports will be available in the 2017 work file.

Value Reconciliation

The mass-appraisal reconciliation and assignment results developed for each parcel will comply with the reporting requirement in USPAP Standards, Rule 6-8, as a jurisdictional exception for Nebraska county assessors. The parcel valuation report generated by RealWare® communicates the elements and results of each approach used to value the subject parcel, along with the value conclusions of the appraisal. Value reconciliation will be based upon the quantity and quality of data available, the applicability and relevance of the approaches considered, and the methods and techniques employed to ensure standards of accuracy are met. In the case of a mass-appraisal for ad valorem taxation, stability and accuracy are important to the credibility of value opinions. Any assumption or limiting condition that results in deviation from recognized mass-appraisal methods or techniques will be disclosed on the individual subject parcel record.

The state provides a “Reports and Opinion” of estimated values to assist the appraisal staff in finalizing values. Final value determinations will be based on a careful analysis of the quantity and quality of data available to develop each approach, as well as validation through the performance statistics produced at the conclusion of each of the model-development phases and the final validation testing. If the comparable sales-approach estimate for a subject parcel produces an erratic or extreme value compared to the neighborhood norm, an alternate, market-derived value would be considered next. If parcel values within a neighborhood or commercial property type fluctuate in an erratic manner, compared to the previous year, a trended index adjustment may be applied to the entire neighborhood or commercial property type. For commercial and industrial property the income approach is expected to become the default, if the model attained acceptable performance standards for the neighborhood and commercial property type.

If an alternate appraisal technique is used to value a subject parcel, we will provide a written explanation of the rationale and justification in the notes section of the individual subject parcel record.

The annual mass-appraisal will be accompanied by a certification signed by the county assessor. The county assessor relies on work performed by staff appraisers, outside fee appraisers, if needed, and other technicians who meet the USPAP competency requirements and have produced credible work. The names of these individuals and the role they played, as indicated on the addendum to the certification form, will be provided.

M. Public Disclosure

When the change of value notices are mailed to property owners, the written appraisal file becomes an open public record. Values will be made available to the public through the county's website and data application. Individuals may view appraisal records for parcel characteristic data and land records information from the above website, or from a printed report from RealWare® CAMA. All exhibits and work products referenced in this document will be available for inspection at the county assessor's office during regular business hours. Printouts, digital files, and document-image printouts may also be obtained through the county assessor's office. Staff time and material charges will be required to prepare and fulfill some open records requests.

An individual or party receiving a copy of work file materials, reports or a written appraisal does not become an intended user of the mass-appraisal unless the county assessor has specifically identified such individual or party in the scope of work document.

Value disputes or challenges of individual property appraisals will be administered through the preliminary meeting process. The appraised values might change as a result of the meeting. The county assessor does not intend to perform single property appraisals under USPAP Standards 1 and 2 for properties that are appealed. However, salient data characteristics may be reexamined and mass-appraisal models or techniques used to develop an opinion of value may be corrected, recalibrated, or adjusted during the appeal period.