1998
COMMERCIAL FEED LOT
APPRAISAL GUIDE

KANSAS APPRAISAL GUIDE
KANSAS DEPARTMENT OF REVENUE
DIVISION OF PROPERTY VALUATION

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F O R E W O R D

The Feedlot Advisory Committee was appointed in June of 1987 to assist and advise the director in providing valuation guidelines to the county appraiser. The committee consisted of commercial feedlot owners and managers, county appraisers, the Kansas Livestock Association and the Division of Property Valuation. The purpose of this committee was to analyze the procedures available to form an appraisal guide for commercial feedlots that would reflect market value for the tangible property assets.

Senate Bill 162, 1997 Kansas Legislature, amended KSA 79-201j to include the *operation of a feedlot,* to take effect and be in force from and after its publication in the statute book. (Chapter 122, 1997 Session Laws of Kansas, page 449.)

This amended Appraisal Guide for Commercial Feedlots was prepared by the Kansas Department of Revenue, Division of Property Valuation, with the assistance and counsel of the feedlot industry and representatives of the Kansas County Appraiser's organization. Their assistance and expertise in this area is recognized with appreciation.

Mark S. Beck, Director
Division of Property Valuation

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Commercial Feed Lots

Commercial feedlots are an important segment of the Kansas economy and have been a part of this economy since the late 1940's and early 1950's. Most of the commercial feedlots are located in the western one-third of the State of Kansas with the highest concentration in the southwest corner. An ideal semi-arid climate and an abundance of feed grains there have been the major influence in the concentration of this industry in Western Kansas.

There have been substantial changes during the past 40 years as a result of technology relating to cattle breeds produced, feeding techniques, rations, and feed processing facilities. Today, there are many commercial feedlots that have state-of-the art feed processing facilities that are nearly 100 percent automated. The two principal types of feed mills in use today are the steam flake and dry roll or a combination of the two.

Kansas Statutes require ad valorem taxation based on market value with consideration given to each approach in the appraisal process (KSA 79-503a). The valuation of feed yards is similar to the valuation of a hotel. That is, the valuation requires segregation of the components of business value, going-concern value, real estate assets, furniture, and fixtures. The commercial feed yard is a special purpose property. Most feed yards are in a continuous state of expansion and re-birth to accommodate changing trends. This results in a mix of improvements and historical ages that reflect a conglomerate age that makes depreciation difficult to estimate accurately. The **feed processing equipment** represents a substantial percentage of the total cost of the feed yard. Hours of use, similar to tractor hours, determine the amount of depreciation rather than age. The value of the feed yard property is related to its market share (location). Environmental regulations make new construction costly beyond normal development costs resulting in few if any new turn-key projects. Today, purchase of existing facilities is the trend with expansion and re-habilitation the norm.

Most sales of commercial feedlots involve a combination of assets, including rolling stock, feed inventory, management-in-place, an established clientele, an on-going business operation, real property fixed assets, and personal property including machinery and equipment, and in some cases, an animal herd. Therefore, it is necessary to account for each component in the analysis of sales data and it is essential to abstract all moneys paid for non-realty and machinery and equipment assets. This accounts for uninformed opinions in the market place and hearsay prices that confuse actual realty values on a per head basis, the common denominator or unit of comparison found in the market place.

Commercial feedlots are bought and sold on the basis of dollars per head of capacity. Capacity can mean different numbers to different people, but is usually thought of in terms of licensed capacity or bunk capacity. Bunk capacity can also vary based on management decisions, but will usually be predicated on a bunk space per head of 9 to 16 inches. The number of times per day that cattle are fed and climatic conditions of the general area are usually the controlling factors in making a determination of allocated bunk space per head. The climate in Kansas can vary substantially from east to west and north to south. Hence, there is no recognized standard, uniform feeding practice in place. For these reasons, the bunk capacity is rated on the basis of 12 inches per head, with adjustments made for actual feeding conditions when applying the guide.

This will provide uniformity in the determination of sale units regardless of the feed lot location or the feeding practice in place for a specific feed lot. Feeding practice relates to the number of times per day the cattle are fed and should not be confused with type of feed processing facilities.
The amount paid for the rolling stock and feed inventory can usually be determined from an interview with the buyer or seller; however, the amount paid for management in place, established clientele and on-going business is more elusive. There is insufficient data to abstract an amount for those intangible assets. Experts in this field advise intangibles average 20 percent of the total sale price. It is believed this general estimate represents the market.

In the valuation schedule, sales have been categorized by the primary feed processing facility: **steam-flake mill, dry roll mill, and minimum mill yards,** with the overall quality and condition judged on the basis of good, average, and fair.

There may be some feedlots in the steam-flake category that are a step above the good quality condition rating. Therefore, an additional value estimate has been determined based on a rating of very good quality and condition that may be applicable to some feedlots in recognition of their unique status.

The valuation schedule is based on dollars per head for each category and reflects market value for only the fixed real property assets and personal property fixtures with a suggested guideline for the percentage exemption of the machinery and equipment that may qualify per KSA-79-201j as amended by SB 162, 1997 Kansas Legislature. **The percentage used is based on the original cost of this equipment in relation to the total investment cost new. Requests for consideration of a greater percentage must be documented. The cost of the feed bunks and waters is about 1% to 2% of the cost of the yard. We have used $3.00 per head to include both items.**

EXPLANATION OF TYPE AND QUALITY

Commercial feedlots are built to finish-feed cattle for market. The primary difference between custom feeding operations is the mix between personnel, machinery, and equipment used to secure, feed, and treat the animal population housed in the facility. A major investment in machinery and equipment lessens the need for personnel. A minimum investment in machinery and equipment increases the need for intense manual labor and greater numbers of personnel. An efficient combination of the components of production results in the maximum profit for the operation.

Since feeding is the primary function of the business, the degree and extent of the use of grain bins, augers, conveyors, hoppers, grinders, steamers, boilers, and auxiliary grain handling equipment used in the preparation, combination, mix and transportation of the ration / diet to the feed bunker determines the quality of the feedlot operation. There are three broad categories with combinations typical, because the investment in a custom feeding operation is a continuing process of expansion and streamlining to maximize the efficiency of the enterprise. Other differences will include the efficiency of the layout that will change over time due to expansion, the age and construction quality and condition of the structural improvements, corrals, pens, alley-ways, and degree of hard surfacing throughout the lot.

STRUCTURAL IMPROVEMENTS

Administration office, hospital, horse barn, storage sheds and storage bunkers, silos, housing for mill operations and auxiliary buildings.

GOOD QUALITY

Administration office building is brick or stone or quality wood siding, partitioned offices, commercial ceilings, carpet and tile floor finish; access to scales. All other structures constructed with high quality building materials, generally concrete or steel, adequate overhead doors and clearances to accommodate rolling stock.

AVERAGE QUALITY

Office buildings will be adequate, medium frame with some partitions and concrete or tile floors; access to commodity truck scales; with other buildings constructed of concrete block, light steel, or wood frame, sufficient doors to accommodate rolling stock. Some buildings are open-sided with pole frame construction.

FAIR QUALITY

Office building is generally a small low quality wood frame structure or pre-fabricated, modular office with few partitions. Other buildings will be minimum quality wood frame or pole frame with light steel or open siding. Equipment storage is minimal.

FEEDING PENS AND ALLEYS

GOOD QUALITY

Proper slope and adequate drainage for pens and alleys in this category is a requirement. Feed alleys should be 20 feet wide or wider with hard surface or minimum of compacted gravel. Feed bunks are either continuous pour concrete or good quality pre-fabricated cable or pipe neck rail. Fencing is typically pipe, cable, or a combination; minimum lodge pine pole with heavy-uniform poles.

AVERAGE QUALITY

Pens and alleys will not vary a great deal from the "good" category, but pen slope and drainage is usually not as good and there may be some mounding in the center of the pen to provide mud relief for livestock. Alleys will generally be less wide and the surface will be less costly. Feed bunks may be cracked in some places and misaligned with less expensive neck rail.

FAIR QUALITY

Pens and alleys will have poor slope and drainage. Alleys will be narrow, poorly drained with a diminished surface. Feed bunks will generally be older style, pre-fabricated, with some broken and misaligned. Fencing is light, non-uniform lodge pole pine, wood board, wire or combination. Watering facilities may be in-adequate with drinking space per head preventing adequate consumption per animal.

CORRAL AND WORKING FACILITY

GOOD QUALITY

Cattle receiving and loading areas are sufficient in size to accommodate several truck loads at the same time. All-weather access is provided by hard surface. Cattle chutes are heavy duty quality, adjustable, with curved approach and enclosed sides. Crowding area and sorting pens are located near livestock scales and are usually constructed with heavy pipe. Working areas have a well equipped hospital with hydraulic squeeze chute and storage space enclosed in a good quality building.

AVERAGE QUALITY

Facilities are similar to the "good" category, but the over-all construction quality is less, and deferred maintenance is apparent. The hospital facility might be an enclosed pole frame shed building or economy steel sided structure, minimal sizing, and not as completely equipped as the good quality category.

FAIR QUALITY

Cattle receiving and loading area is usually limited in size and is not improved with an all-weather surface. Chutes are generally set in place and constructed of wood. Working area fencing is usually wood or light weight pipe. Processing area is not covered, has manual operated squeeze chute and the hospital holding area usually contains only a small shed which may not be enclosed.

FEED PROCESSING FACILITIES

The efficiency of the feeding system has the primary effect on the economic success of the enterprise, excluding market timing. Feed processing facilities are the primary concern of owners, buyers, managers, and customers, because the type and quality of the feed mill used is believed to have direct bearing on the value of the animal unit being fed for market. The manner of feeding is a management decision based on factors which include the cost of the commodities used. Most commercial feedlots have a primary milling procedure and a secondary procedure to provide flexibility for economic reasons.

There are four mill designs that are prevalent in Kansas feed lots:

1.) **Steam flake, weigh and mix in mill.**
2.) **Steam flake, weigh system in mill, mix on feed-truck.**
3.) **Steam flake, bunker system, weigh and mix on feed-truck.**
4.) **Dry roll mill, weigh and mix on feed-truck**

1.) STEAM FLAKE: WEIGH AND MIX IN MILL: Full Batch Mill Operation

Mills that includes a steam flaker(s) and weighing and mixing equipment in mill is the most complete and equipment intensive. The equipment takes all of the raw commodities used in cattle feeding rations (corn, milo, wheat, hay, fat, molasses, micro ingredients, and others) and produces a bunk- ready ration. The grains are **conveyed to steam chambers** where the temperature is approximately 210 degrees, passing through the steam chamber the grain is **flaked and then conveyed** to another part of the mill where it is **weighed and mixed** with other feed ingredients. In another part of the mill, hay is chopped, **weighed and mixed** with molasses, fat and micro ingredients into the final ration. In this full batch mill system all ingredients are mixed together by equipment in the mill before it is loaded into a feed-truck and transported to the feed bunk. Approximately 65% of the mill operation is machinery and equipment which constitutes approximately **23%** of the total investment in real estate and machinery and equipment excluding rolling equipment such as trucks, loaders, spreaders.

2.) STEAM FLAKE: WEIGH SYSTEM IN MILL: Mix Batch in Feed-Truck

Steam flaked without mixing is similar to the weigh and mix systems (#1) except the various commodities are weighed separately into a specialized feed-truck that mixes the batch before transporting to the feed bunk. Approximately 58% of the mill operation is machinery and equipment which constitutes approximately **16%** of the total investment in real estate and machinery and equipment excluding rolling equipment such as trucks, loaders, spreaders.

3.) STEAM FLAKE: BUNKER SYSTEM: WEIGH AND MIX IN FEED-TRUCK.

In the steam flaked bunker system the flaked grain is transported by auger to storage bunkers outside the mill. Equipment such as tractor with front-end bucket is used to load the grain into feed-trucks that are equipped with scales to allocate each grain by weight and mixed in the truck transporting the batch to the bunker. Approximately 50% of the mill operation is machinery and equipment which constitutes approximately **12%** of the total investment in real estate and machinery and equipment excluding rolling equipment such as trucks, loaders, spreaders.

4.) DRY ROLL MILL: WEIGH AND MIX ON FEED-TRUCK.

A dry roll mill is the least intensive investment in mill machinery and equipment. The grain is **conveyed** to and through a grinding system without benefit of steam flaking. All ingredients are loaded on a feed-truck, mixed, and transported to the feed bunkers. Approximately 50% of the mill operation is machinery and equipment which constitutes approximately **12%** of the total investment in real estate and machinery and equipment excluding rolling equipment such as trucks, loaders, spreaders.

GOOD QUALITY

A new mill or a mill which has been completely rehabilitated within the past five years with major improvements such as replacing black carbon steel with stainless steel, airlift or stainless steel conveyor, in-mill mixer, roughage conveyor transported to mixer chamber, enclosed dump pits and feed truck loading, clam-shell dumps, conditioners and scalpers. Mill has high quality and advanced technology in handling feed and various ration ingredients.

AVERAGE QUALITY

Denotes mills that are between five and ten years of age, well maintained, but have had only minor re-conditioning. Overhead holding tanks and steam chambers are usually 10 gauge black carbon steel with original legs and grinders. Less quality, obsolete technology, less efficient.

FAIR QUALITY

Mills in this category will generally be older than ten years with little, if any, re-conditioning, except roller replacements, minimum maintenance on remaining mill equipment. Poor efficiency in handling grain, protein, and roughage.

REAL PROPERTY vs. PERSONAL PROPERTY FIXTURES & EQUIPMENT

In Kansas there does not appear to be any binding case law setting precedent as to real or personal property determination for the purpose of so defining same for ad valorem taxation. There is case law determining when property is real vs. personalty for other purposes. Kansas case law consistently considers three factors in determining when an item is a fixture: annexation, adaptation, and intention.

Annexation: Physical attachment alone does not determine realty v. personalty. In 1889, the Kansas Supreme Court (A.T. & S.F. Rld. Co. v. Morgan, 42 Kan. 23, 28 {1889}):

> "there is scarcely any kind of machinery, however complex in its character, or no matter how firmly held in its place, which may not with care be taken from its

> fastenings and moved without any serious injury to the structure where it may have been operated and to which it may have been attached." Id., 29.
>
> and, "On the other hand, there are very many things although not attached to the realty which become real property by their use -- keys to a house, blinds and shutters to the windows, fences and fence rails etc." Id., 29.
>
> and, "The test of whether real estate is benefited by the act of annexation has been repeatedly applied by the courts, to determine whether the chattel annexed became a fixture or not." Id., 29.

In determining whether an item is benefited by the act of annexation, look at whether the removal of the item causes a reduction in the fair market value of the realty, or requires a significant amount of time or cost to restore the realty to its original use. If the removal of an item results in no change in the market value of the realty, then it is personal property. If the removal of an item results in a reduction in the market value of the realty, then it is part of the realty.

Adaptation:

> "One of the tests of whether a chattel retains its character or becomes a fixture is the uses to which it is put. If it be placed on the land for the purpose of improving it and to make it more valuable, that is evidence that it is a fixture and not personal property." Id. 29

Thus, when considering the adaptation of the item to the realty, consider whether the item at issue is necessary and useful to the land. If the item adds value to the realty, it is part of the realty. If it does not add value, it is personal property, e.g., a building has two boilers. One boiler provides heat to the building; the other boiler provides steam to power a manufacturing process housed in the building. The highest and best use of the building is for general industrial employment. The boiler that heats the building enhances the value of the real property. The boiler that serves the manufacturing process does not, hence, the building boiler is part of the real property, but the boiler that serves the manufacturing process is personal property.

Intent:

> "Intent is inferred from the nature of the item affixed, the relation and situation of the party making the annexation, the structure and mode of annexation, and the purpose or use for which the annexation was made." Eaves v. Estes, 10 Kan. 314, 316, 15 Am. Rep. 345 (1872).

In Eaves, the court was considering whether a steam engine affixed to real estate was real or personal property. Because of the ambiguity of the situation, the court found it appropriate to decide the matter based upon the written intent of the parties that was expressed in a chattel mortgage. In the language of the chattel mortgage, it was clear that the party affixing the engine to the real estate intended for the engine to remain personal property.

CONCLUSION:

Real Estate:

Land, excavation, concrete, bins, structural steel, grain storage system
Corrals, fencing, feeding pens, alleyways
Structures including administration building, storage sheds, machine sheds and hospital.

Personal Property:

Mill machinery and equipment which may include but not limited to; conveyors, hoppers, receiving drive system, bucket elevator leg, receiving leg, upper distribution and service decks, bin accessories, roller mills, flakers and relay systems, man-lift unit, scalping, blending and hot water system, batching system, boiler system and liquid storage, roughage system. This is personal property because the mill does not add value to the real estate; it adds value and improves the business use not the real estate. Water and feed bunks, portable or attached.

1998 FEED LOT VALUATION GUIDELINES

STEAM-FLAKE MILL OPERATION

	Column A Real Estate & Fixtures	Column B * Real Estate
1.) Weigh and Mix Full Batch in Mill		
Very Good Quality & Condition	**$125 to $100 per head**	**$94 to $75 per head**
Good Quality & Condition	**$99 to $75 per head**	**$74 to $55 per head**
Average Quality & Condition	**$74 to $60 per head**	**$55 to $44 per head**
Fair Quality & Condition	**$59 to $40 per head**	**$43 to $28 per head**
2.) Weigh System in Mill / Mix Batch in Feed Truck		
Good Quality & Condition	**$99 to $75 per head**	**$81 to $60 per head**
Average Quality & Condition	**$74 to $60 per head**	**$60 to $48 per head**
Fair Quality & Condition	**$59 to $40 per head**	**$47 to $31 per head**
3.) Bunker System / Weigh and Mix Batch in Feed Truck		
Good Quality & Condition	**$99 to $75 per head**	**$84 to $63 per head**
Average Quality & Condition	**$74 to $60 per head**	**$62 to $50 per head**
Fair Quality & Condition	**$59 to $40 per head**	**$49 to $33 per head**

DRY ROLL MILL

Good Quality & Condition	**$85 to $60 per head**	**$72 to $50 per head**
Average Quality & Condition	**$59 to $40 per head**	**$49 to $33 per head**
Fair Quality & Condition	**$39 to $30 per head**	**$32 to $24 per head**

MINIMUM MILL FACILITIES

Good Quality & Condition	**$50 to $35 per head**	**$45 to $30 per head**
Average Quality & Condition	**$34 to $25 per head**	**$29 to $21 per head**
Fair Quality & Condition	**$24 to $15 per head**	**$20 to $12 per head**

*** Note: Column B has the personal property removed from the Column A values.**

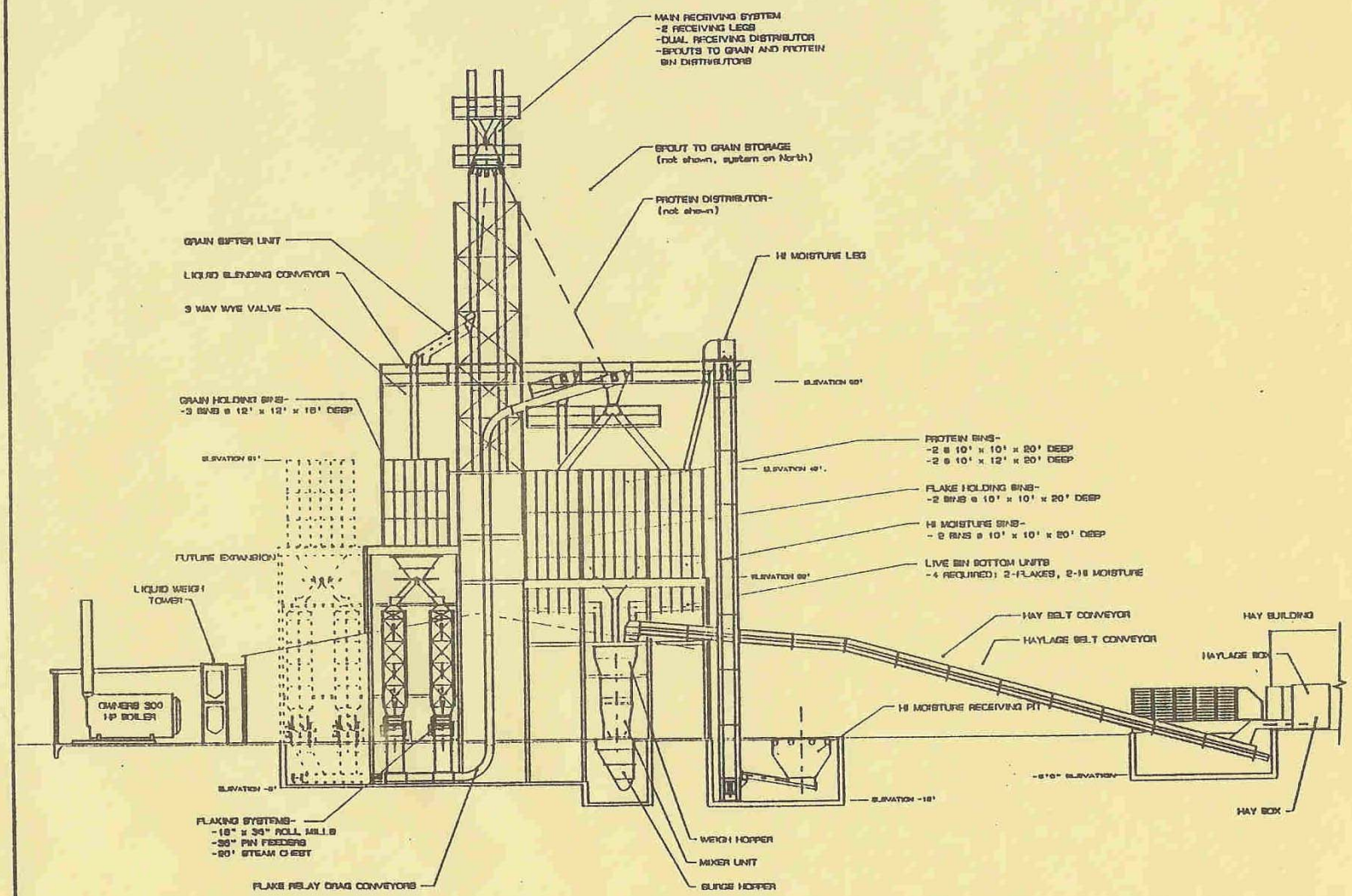
EXAMPLE

100,000 HEAD FEED YARD	**$ / Head**
STEAM FLAKE WEIGH & MIX IN MILL	
100,000 head x $75 per head = $7,500,000	**$75**
***Less* Mill Equipment @ 23% = -$1,725,000**	**- $17**
***Less* Waters and feed bunks = -$300,000**	**- $ 3**
Real Estate = $5,475,000	**$55 per head**

ROLLING STOCK & EQUIPMENT

In addition to feed handling and processing equipment, the exemption applies to other machinery and equipment **used at the feed yard**. This includes, but is not limited to: implements of husbandry* as defined by **K.S.A. 8-126,** loaders, scrapers, irrigation equipment, forage blowers, bunk reading equipment, manure spreaders, equipment used to dispense pharmaceuticals (drug machine), **boilers used in the processing of feed,** squeeze chutes, welding equipment, stock tanks, feed bunks, hay grinders, chisels, grain grinders, portable corrals, post hole diggers, bunk sweepers, spraying equipment, skid steer loaders (*Bobcats etc.)*, scales, mowers, farm trailers, grain moisture testers, manure composting equipment, milking equipment, and equipment parts and supplies for the above.

Since K.S.A. 79-201j has been amended to include personal property actually and regularly used (the exclusive use requirement was removed) in any farming or ranching operation, there may be a question as to whether or not certain equipment is exempt. Some examples would be: feed trucks, livestock and grain trailers and semi-trailers. *Passenger vehicles, trucks, truck tractors, trailers, semi-trailers, or pole trailers, other than farm trailers, as the terms are defined by K.S.A. 8-126, are specifically precluded from exemption in K.S.A. 79-201j. When the truck **bed** is an integral, permanent part of the underlying truck, it cannot qualify for exemption although it may be farm machinery and equipment. See *Personal Property Farm Exemptions* memorandum dated June 5, 2001 for a more detailed discussion. If in doubt on any item of personal property, have the taxpayer file an appeal with BOTA.



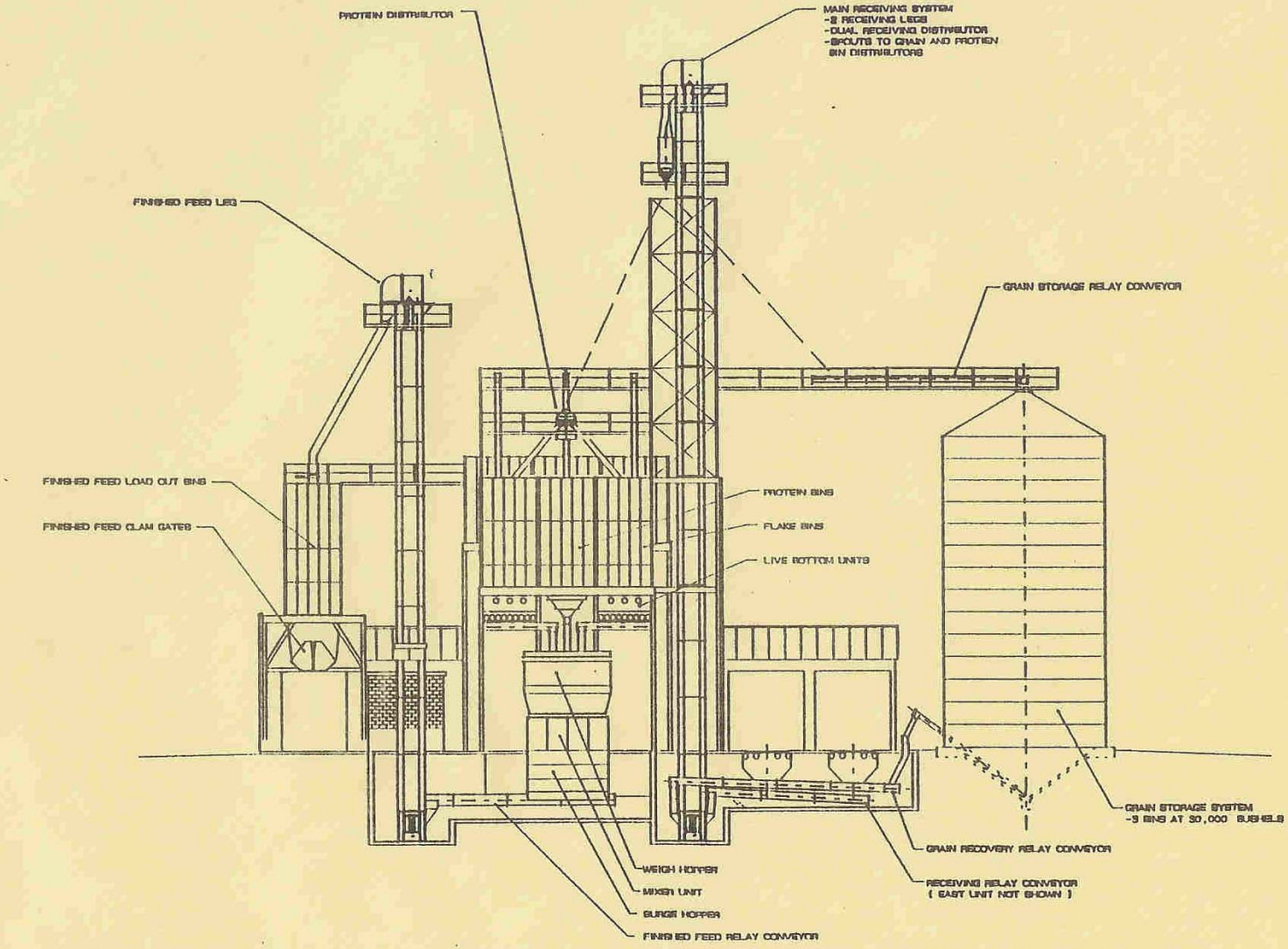
SOUTH SECTIONAL ELEVATION

SHOWING MAIN MILL AT FLAKING OPERATION

ERNEST-SPENCER INC.
CONTRACTORS AND BUILDERS
MISSION, KANSAS

FORD COUNTY FEED YARD
FORD 9

NEW [illegible] PROPOSAL



EAST SECTIONAL ELEVATION

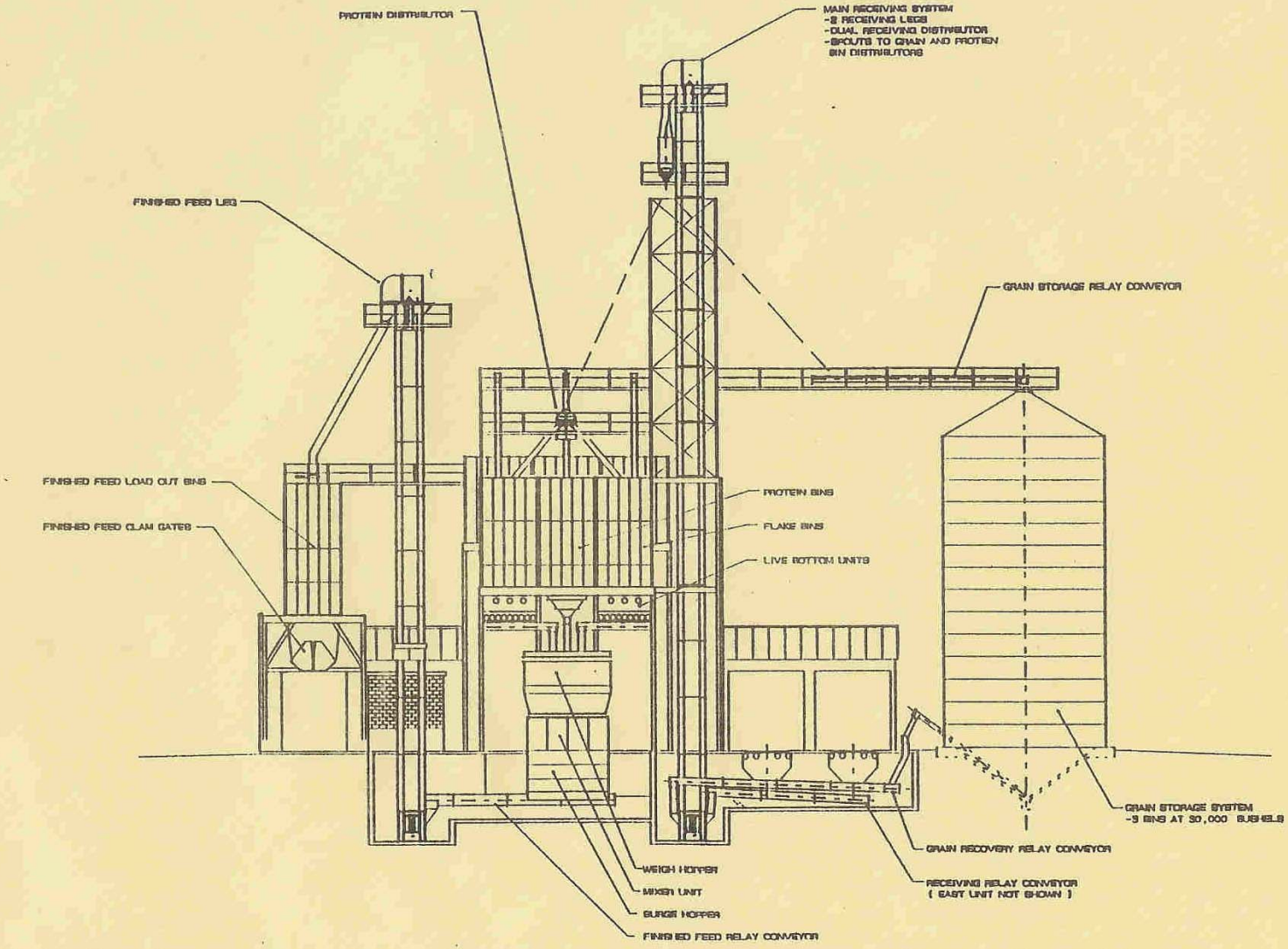
SHOWING RECEIVING, BATCHING, AND LOAD OUT SYSTEMS

ERNEST-SPENCER INC.
CONTRACTORS AND BUILDERS
MERIDEN, KANSAS

FORD COUNTY FEED YARD
FORD, KANSAS

NEW FEED [illegible] PROPOSAL

REVISION



EAST SECTIONAL ELEVATION

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NEW FEED [illegible] PROPOSAL

REVISION