

FOUR STATES FAIR GROUNDS

Presented to
Professor Arthur Dudley Thompson
Division of Architecture
Texas Tech University

In Partial Fullfillment
of the Requirements of the
Bachelor of Architecture Degree

By
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To my wife and parents

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I. PROJECT STATEMENT

My selection of a fairgrounds and exhibition center is made in response to several needs - both mine as a student requiring an appropriate thesis selection and those of a host city in need of new facilities. I chose this topic because of my familiarity with the area and my interest in community activities such as fairs and exhibitions. Other reasons for selecting this topic include available access to an actual user group and client and the actual need for this facility in Texarkana, my home town before coming to Texas Tech in 1977.

The Four States Fair and Rodeo, held each September in Texarkana, is significant in many ways. First, it is a celebration of not only the city but the surrounding nineteen counties also. It brings into perspective the relationships of the urban centers with the rural life around the four states area. It is also the most important fair within a radius of one hundred plus miles around Texarkana. The fair grounds also hold other significance in the fact that it is the only facility of its kind in Texarkana. This allows it to be used for many purposes throughout the year.

Upon completion, I believe this project will offer evidence to my educational accomplishments in many ways. It will

demonstrate my understanding of design in planning and building design. It will also exhibit my ability as a programmer.

NEEDS STATEMENT

As stated earlier, the Four States Fair and Rodeo Association, Inc. has expressed the desire for new facilities to conduct their annual fair in. This desire poses the question of why are new facilities needed. The Fair Association first determined their need, not at an exact point in time, but rather a growing problem became evident. The current facilities were quickly deteriorating beyond hope of feasible remodeling. The main reason for this is the age of the structures. Most fairgrounds are built over a period of many years. The current facilities were begun in 1945 and have been added to on a year to year basis ever since. This creates a hodge-podge of different types of structures with no unifying characteristics. The fact that the complete grounds and buildings are being redesigned at one time gives the designer a much better chance of success than those in the past. Coupled with this problem is the ever increasing shortage of space for exhibitions, livestock and the midway.

These two major problems along with other minor ones led the Fair Association to express their desire for new facilities. The city of Texarkana, Arkansas has offered the Fair Association free land in the northeast part of the city. In the past, the Fair Association has considered a new ground but lacked the

reserve for both the land and the structures. But now that the city has donated the land, the Association is preparing to transfer their location to this new site. They feel they will be able to complete the new facility in two or three years.

II. BACKGROUND

CREATION

Fairs were first organized in this country as a result of the formulation of Agricultural Societies in the late 1700's.¹ The founders of these societies wanted an occasion to display their thoughts and examples concerning improved agricultural practices in this country. These men felt that if they could persuade the farmer to implement better ideals, the output of these farmers would improve. When the output improved, so would the states of the new republic.²

These early fairs then gave the farmer a chance to see new improvements in agriculture as well as socialize with his neighbors.

"The forerunner to the Four States Fair and Rodeo was the Four States Livestock Association, which had been organized in 1939. After some spirited meetings and lively debates, the Four States Fair and Rodeo was organized and the assets of several hundred dollars were transferred to the Four States Fair."³ During a meeting held on March 6, 1945, a president and secretary were elected and by-laws and a charter were written.⁴

"The charter of the fair was dated August 14, 1945. The

original purpose as set forth in this charter reads: 'For the scientific and educational encouragement of agriculture, horticulture, livestock, poultry, and farm products by maintenance of public fairs and exhibitions and to promote generally the welfare of same in the state and nation.'"⁵ Today's fair is still living up to the original purpose set forth in the charter. The Fair Association has added fine arts, home arts, and other educational activities in keeping with our time.

EVOLUTION

In the beginning, the fair received contributions but in following years, members paid individual dues. This supplied a small but steady economic base with which to build facilities. The fair was plagued by many problems, such as shortage of materials. After a few years of very slow growth, the fair began to expand rapidly. Almost all of the current structures were built in the 1950's. The latter years have seen improvements on the grounds and buildings as well as a formulation of plans for a new fairgrounds.⁶

PRESENT CONDITION

As stated earlier, the fair today is still abiding by the original purpose with some new activities as well. It performs these functions with the help of other organizations such as the F. F. A. and Four-H clubs. These two clubs are the main source for all exhibitions. In 1981, thirty-six F. F. A. and twelve Four-H clubs participated in the fair.

They organize the exhibition throughout the year and select what will be exhibited. Other civic organizations also help operate the fairgrounds every year. The memberships of the Four States Fair are composed of public spirited individuals representing business, industry, agriculture, livestock, home arts, cultural arts, as well as, Texarkana's schools, counties and city governments.⁷

Throughout the year the grounds are used for many other activities. These include cattle and equipment sales, spring livestock shows, scout exhibitions, dog shows, rodeos, company picnics, and an annyal circus. The fairgrounds are occupied on the average of 175 days a year.⁸

The requirements for the other activities that occur on the grounds are varied but all use one or more of the same structures or open areas that are included on the fairgrounds. Cattle sales and shows use the livestock exhibition area and showing area where the midway is located. Scout exhibitions also use the open area and coop system the midway provided. The dog show is usually held in the agricultural exhibits building. The circus usually sets up its tent on the midway. Some RV hook-ups are used by the circus personnel. All of these activities fit very well in the current layout and structures of the fairgrounds.

CURRENT STRUCTURES

Building	Qty.	Type of Structure	Area	Comments
Commercial Exhibits	1	Cone Block	10,800 sq.ft.	Oldest/Wood Floor
Box Office	1	Conc Block	400 sq.ft.	Works well
Guard House	3	Portable	100 sq.ft.	
Restrooms	3	Conc Block	400 sq.ft.	Bad Location
Children's Animals	1	Steel Metal	1,800 sq.ft.	Too small
Agricultural Exhibits	1	Steel Metal	10,800 sq.ft.	Adequate Space/ Nice flow
Rabbits	1	Steel Metal	1,800 sq.ft.	Congested
Livestock	1	Steel Metal	18,900 sq.ft.	Newest/Too Small
Washrack	1	Steel Cone	2,000 sq.ft.	Too Crowded
Antiques	1	Block	8,000 sq.ft.	Old/Crowded
Fine Arts	1	Block	8,000 sq.ft.	Old/Nice Flow
Home Arts	1	Block	2,500 sq.ft.	Old/Spacious
Office	1	Block	1,440 sq.ft.	
Concessions	8	Steel Metal	800 sq.ft.	Open Air
Stock Barn	1	Wood	45 Animals	Dilapidated
Rodeo Arena	1	Steel Wood	Seats 5,000	Designed Well
Outdoor Exhibitions	-	Grass	760 Linear ft.	
Midway	1	Asphalt Coop	5 - 7 Acres	Loop System
Fair Office	1	Block	200 sq.ft.	Too Small
Roads/Walks	-	Asphalt		

SOCIOLOGY

The fair in America serves as a meeting ground for ideals and people. Originally, the fair served many interests, mainly for the farmer. These included economics, technology, education, recreation and socialization.⁹ But now the fair serves urbanites as well. "About 56 percent of the customers who spend two dollars a head and more for admission come not from farms, but from nearby cities."¹⁰ This increase of people from the city reflects the need for a city to celebrate itself. When this occurs, the farmer gets to see himself in relation to those he provides for. The people of the city also have the chance to see what agriculture and country life is about.

Most urbanites attend the fair as a source of recreation. They are entertained by the exhibitions and midway. They meet people, see friends, and view all segments of our society.

Most country people and its youth attend with several things on the mind. They participate in most events and exhibitions. In this way, fairs serve as an expression of achievement of the farmer and his family.¹¹ The farmer also attends the fair to view the latest information in all fields of farming.

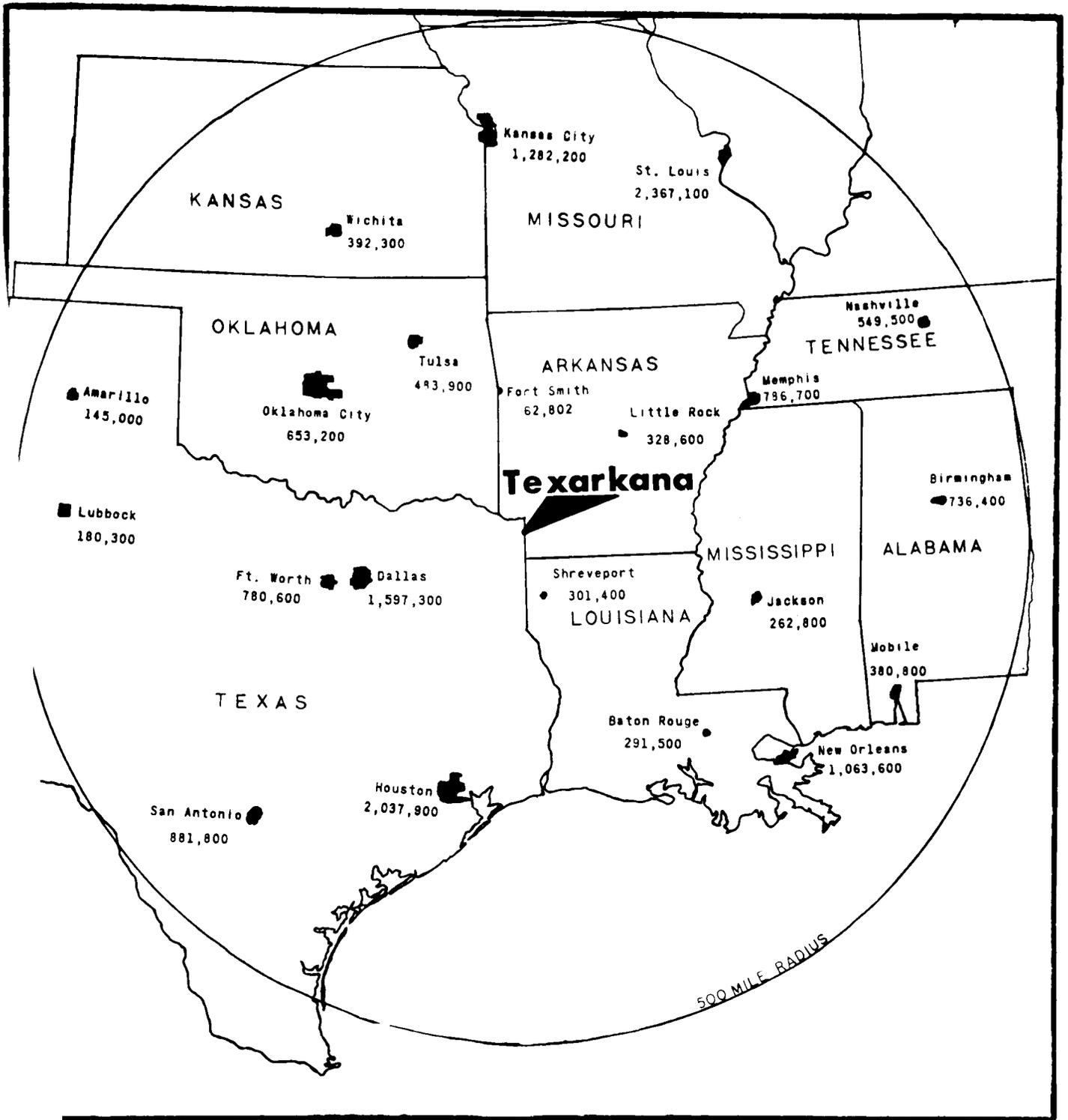
But for both groups of society, the fair is a place to go and interact with other members of society. "The fair acts as an agency of socialization in that under the periodically renewed spirit of festivity which it fosters, all the participants and spectators may sink certain of their personal interests

deeper into the roots of sociality and may perceive more clearly the meaning of society itself."¹²

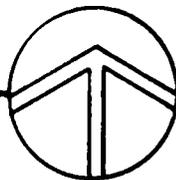
ENVIRONMENTAL ANALYSIS

FOUR STATES AREA

The four states area consists of northeast Texas, northwest Louisiana, southwest Arkansas and southeast Oklahoma. Several counties in each state are represented at the fair through schools, agriculture clubs, commercial establishments and attendance by members of the general population. The total population of this area is 292,000.¹³ Of these, several hundred participate in the fair, while 130,000 plus attend each year.



REGION MAP



0 50 100 200 MILES



Climate data for the four states area is similar to the conditions of Texarkana itself. Contained on the following pages are diagrams and charts reflecting precipitation, wind, solar angles, temperature and humidity.¹⁴ An analysis of this information will be included in the site analysis.

TEMPERATURE

<u>MONTH</u>	<u>AVERAGE DAILY</u>	<u>AVERAGE HIGH</u>	<u>AVERAGE LOW</u>
January	45°	56°	35°
February	47°	57°	37°
March	54°	67°	44°
April	57°	75°	52°
May	71°	83°	60°
June	78°	90°	67°
July	83°	94°	70°
August	84°	94°	70°
September	76°	88°	64°
October	65°	77°	51°
November	53°	65°	40°
December	46°	54°	35°

WIND, PRECIPITATION AND RELATIVE HUMIDITY

<u>MONTH</u>	<u>DIRECTION</u>	<u>WIND</u> <u>AVERAGE</u> <u>SPEED</u>	<u>* PRECIPITATION</u>	<u>RELATIVE</u> <u>HUMIDITY</u>
January	SE	9 mph	4.69 in.	65%
February	SE	9 mph	4.11 in.	76%
March	SE	10 mph	4.83 in.	65%
April	S	9 mph	5.49 in.	75%
May	S	8 mph	5.92 in.	85%
June	S	8 mph	3.26 in.	72%
July	S	7 mph	4.19 in.	73%
August	SE	7 mph	3.04 in.	73%
September	SE	7 mph	3.41 in.	75%
October	SE	7 mph	3.47 in.	73%
November	SE	8 mph	4.14 in.	75%
December	SE	9 mph	4.10 in.	70%

48.00 in. Total
Rainfall/Year

* Only three inches of snowfall a year.

SUN ANGLES

<u>MONTH</u>	<u>DATE</u>	<u>STANDARD TIME</u>	<u>SUN TIME</u>	<u>PROFILE ANGLE</u>	<u>BEARING</u>
March	1	8:00	7:32	37°	72° E of S
		12:00	11:32	50°	12° E of S
		4:00	3:32	45°	62° W of S
	11	8:00	7:37	52°	65° E of S
		12:00	11:37	54°	12° E of S
		4:00	3:37	50°	65° W of S
	21	8:00	7:40	57°	68° E of S
		12:00	11:40	58°	15° E of S
		4:00	3:40	57°	68° W of S
June	21	8:00	7:42	85°	92° E of S
		12:00	11:42	89°	---
		4:00	3:42	85°	90° W of S
Sept.	1	8:00	8:00	74°	81° E of S
		12:00	12:00	66°	---
		4:00	4:00	74°	81° W of S
	11	8:00	7:46	65°	70° E of S
		12:00	11:46	62°	10° E of S
		4:00	3:46	66°	74° W of S
	21	8:00	7:51	58°	64° E of S
		12:00	11:51	58°	6° E of S
		4:00	3:51	59°	73° W of S
Dec.	21	8:00	8:00	18°	54° E of S
		12:00	12:00	35°	---
		4:00	4:00	17°	54° W of S

The general condition of the soil in this area is level overall, but it has a secondary relief of low mounds. The average elevation ranges between two hundred feet and seven hundred feet above sea level. Most of the land is covered with timber except for bottom lands along rivers.¹⁵ The main uses of this land include farming, cattle raising, and commercial forestry.

The transportation of this area is mainly by street vehicle. Highways are numerous throughout the area. Most are state highways with an interstate bisecting the area. There are also considerable farm to market roads. Railroad transportation is light, with the main station located in Texarkana. Airports and landing strips dot the area. Again, Texarkana is the only city with an airport large enough to handle jet traffic and passenger service.

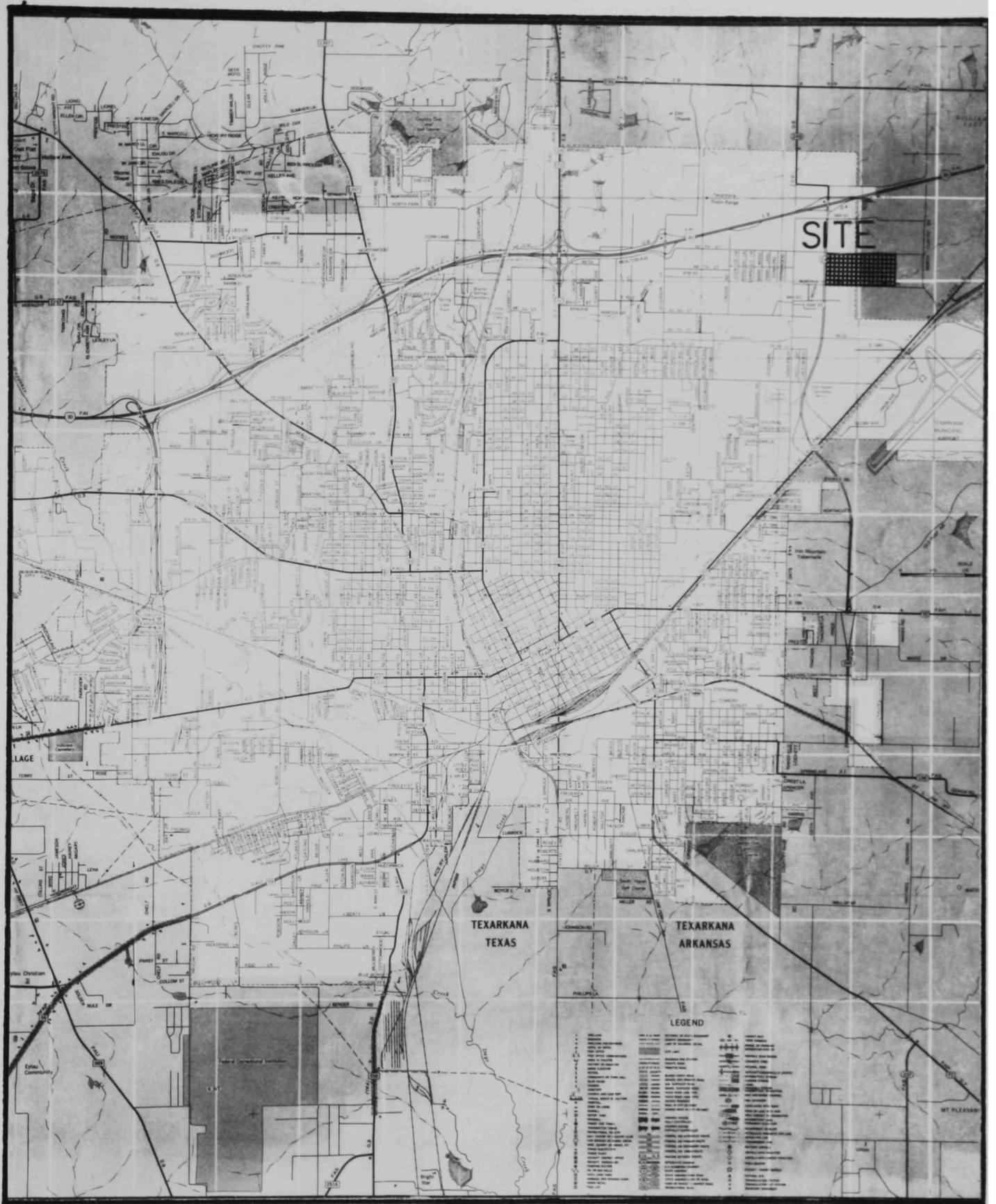
Historically, this area has always been known as a stopping grounds for travelers. "Even before the coming of the white man, the territory around what now is Texarkana was traversed by the great Southwest Trail which, for hundreds of years, had been the main trunk line of travel between the Indian villages of the Mississippi Valley and of the west and wouth-west."¹⁶ This area was also used by frontier settlers as camping grounds on their way into Texas. Today Texarkana motels are generally full of travelers going to and from points in Arkansas, Texas and Louisiana.¹⁷

Four states governments have jurisdiction in this area. The laws of these states differ some but are usually the same in most regards. The cities , towns and communities have differing forms of governments. Most are council-manager types. Law enforcement is maintained by individual police in each city with sherrifs in the surrounding counties.

Economically, this area is growing but at a slow rate. Many believe this area's slow but steady economic growth is tied in closely with the general boom in the overall south-west. Most income producing industries rely on the land as their resource. These include forestry, farming, cattle ranching, and mineral extractions. Also located in the larger cities is some industry - mostly light with some heavy. The median household income for this area is \$13,702.¹⁸

TEXARKANA

Texarkana is located in the center of the four states area on the state line of Texas and Arkansas. The city itself covers an area of 10.88 square miles in Arkansas and 20.0 square miles in Texas.¹⁹ It is located in Bowie County, Texas and Miller County, Arkansas, twenty-eight miles south of Oklahoma and twenty-five miles north of Louisiana.



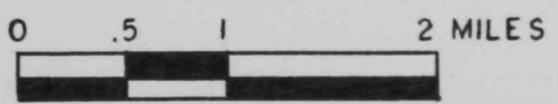
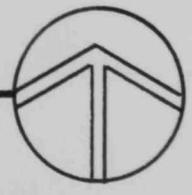
SITE

TEXARKANA
TEXAS

TEXARKANA
ARKANSAS

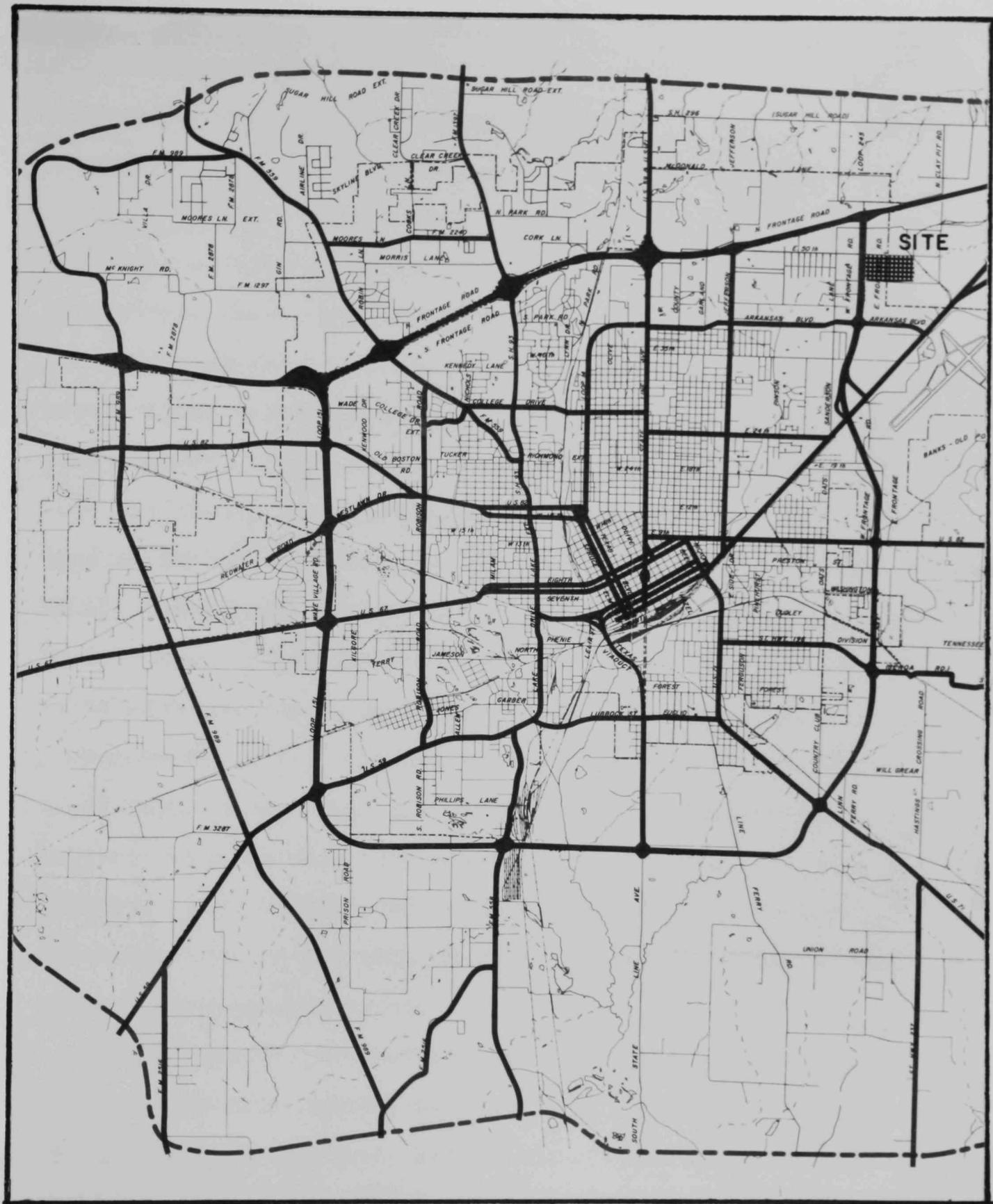
LEGEND

TEXARKANA

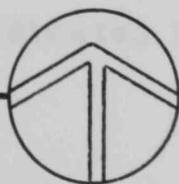


The same climate conditions listed earlier prevail in Texarkana. The soils under Texarkana are mainly loamy with some sand. The elevation level is listed at 325 feet with 340 feet above sea level, the level on our site.²⁰

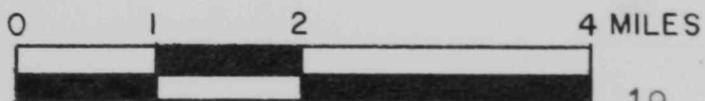
Transportation in and around Texarkana is mainly rubber-tired vehicle with some railroad lines and an airport. The following plan locates the arterial and collector within the city.²¹ It also locates the railroad switching yards and the major airport. The proposed site is located very well in terms of access. It is served by several arterials and one collector. Closely located is the Texarkana Munciple Airport. A branch line of a railroad could possible provide rail access for exhibitions traveling on trains.



TRANSPORTATION



MAJOR ARTERIES



Texarkana was founded in 1874 at the junction of two railroads. Early growth relied on a thriving lumber industry along with the fact that Texarkana was becoming an important railroad center. "Since 1900, the city has become a focal point for a large trade territory, and during the last two decades has developed into an important center of diversified manufacturing and a growing medical center for the three state area. Since the first census, in 1880, which showed a population of 3,223, Texarkana has experienced a steady growth."²²

The people of Texarkana are a diverse group. The population is recorded as being 52,730 for Texarkana and 127,019 for SMSA. The average income is \$13,500. The density of the city is 2.71 persons per acre. Seventy-six percent of the SMSA is white with the remainder black. There are really no ethnic groups in the city. The one main difference is that of the black population. They are mostly lower on the economic ladder. Most persons have graduated high school and many college. Unemployment runs around seven to eight percent. The crime rate of the city is high compared to other cities in both Arkansas and Texas.²³

Texarkana is governed by the separate city governments. Both are the city council-manager type. Both operate police forces, fire departments, and planning departments independently of each other. This sometimes leads to problems as can be seen in the lack of coordinated bi-city projects. Both cities

are served by city, county, and federal courts.

"Texarkana's economy is based upon agriculture, manufacturing and wholesale and retail trade, principally. It is the largest wholesale center between Dallas and Little Rock and its retail trade area extends for more than seventy-five miles in three directions."²⁴ Competition from the southeast comes from Shreveport. This reduces the economic realm in Louisiana as well as limits social contacts.

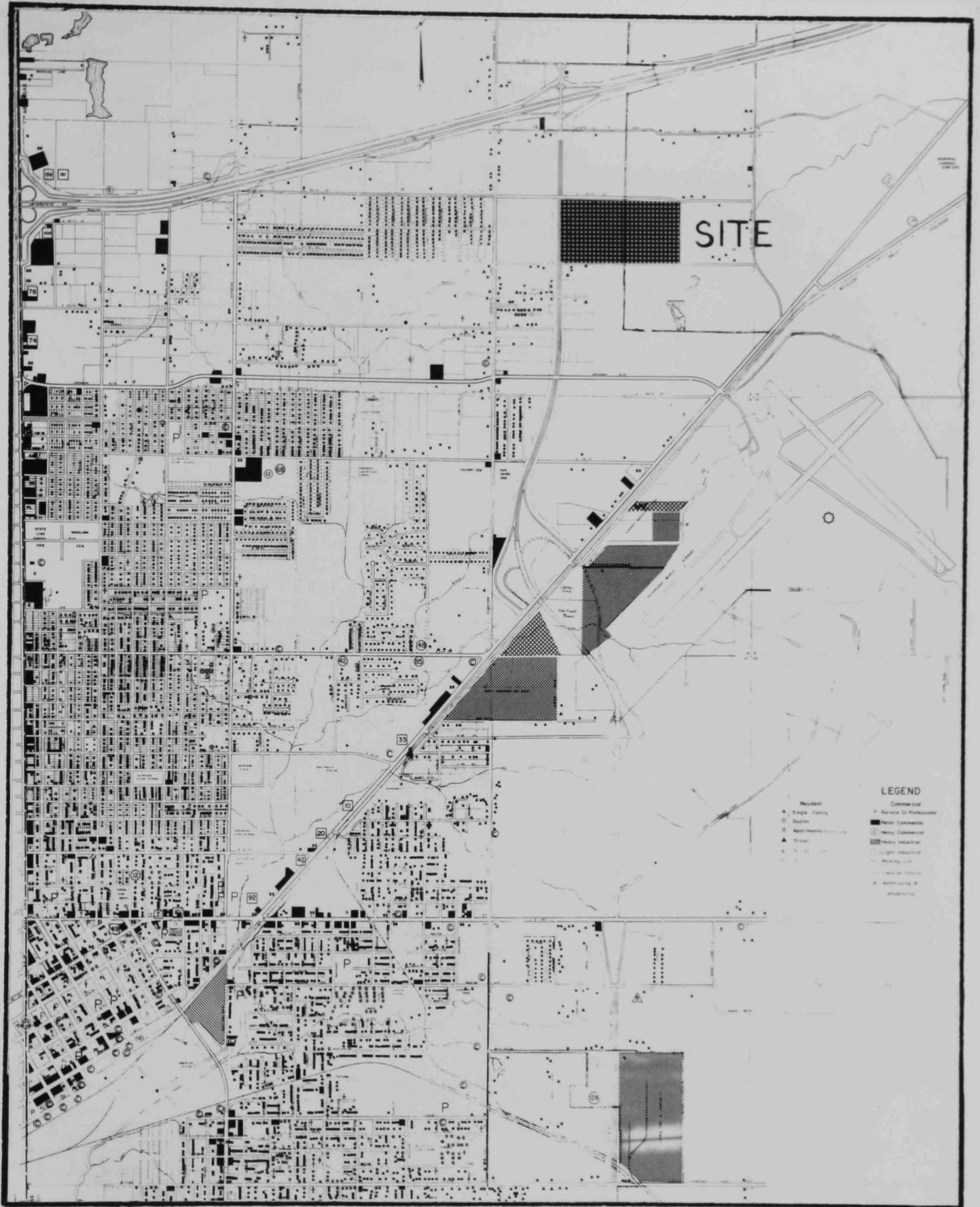
Culturally, Texarkana has made great advances during the past years. Texarkana Civic Music Association, Little Theater, Texarkana Community Chorus, art and photography shows and other presentations by local civic clubs, along with the Texarkana Historical Museum offer many chances to be enriched by experiences outside normal daily activity.²⁵ "Stage shows, bellets, concerts, lectures, film festivals, convention meetings and other types of entertainment are periodically scheduled at the Perot Theatre in downtown Texarkana. The Perot is a vintage 1924 theatre which has been fully restored to its original condition and modernized with contemporary lighting, sound, and state equipment."²⁶

Land use in Texarkana is controlled by two separate zoning boards. Existing land use is as follows.²⁷

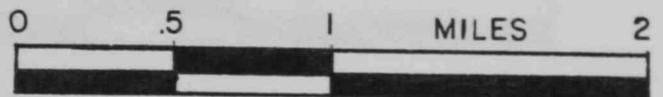
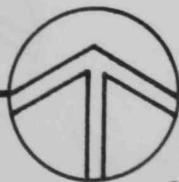
PERCENTAGES OF DIFFERENT TYPES
OF LAND USE IN TEXARKANA

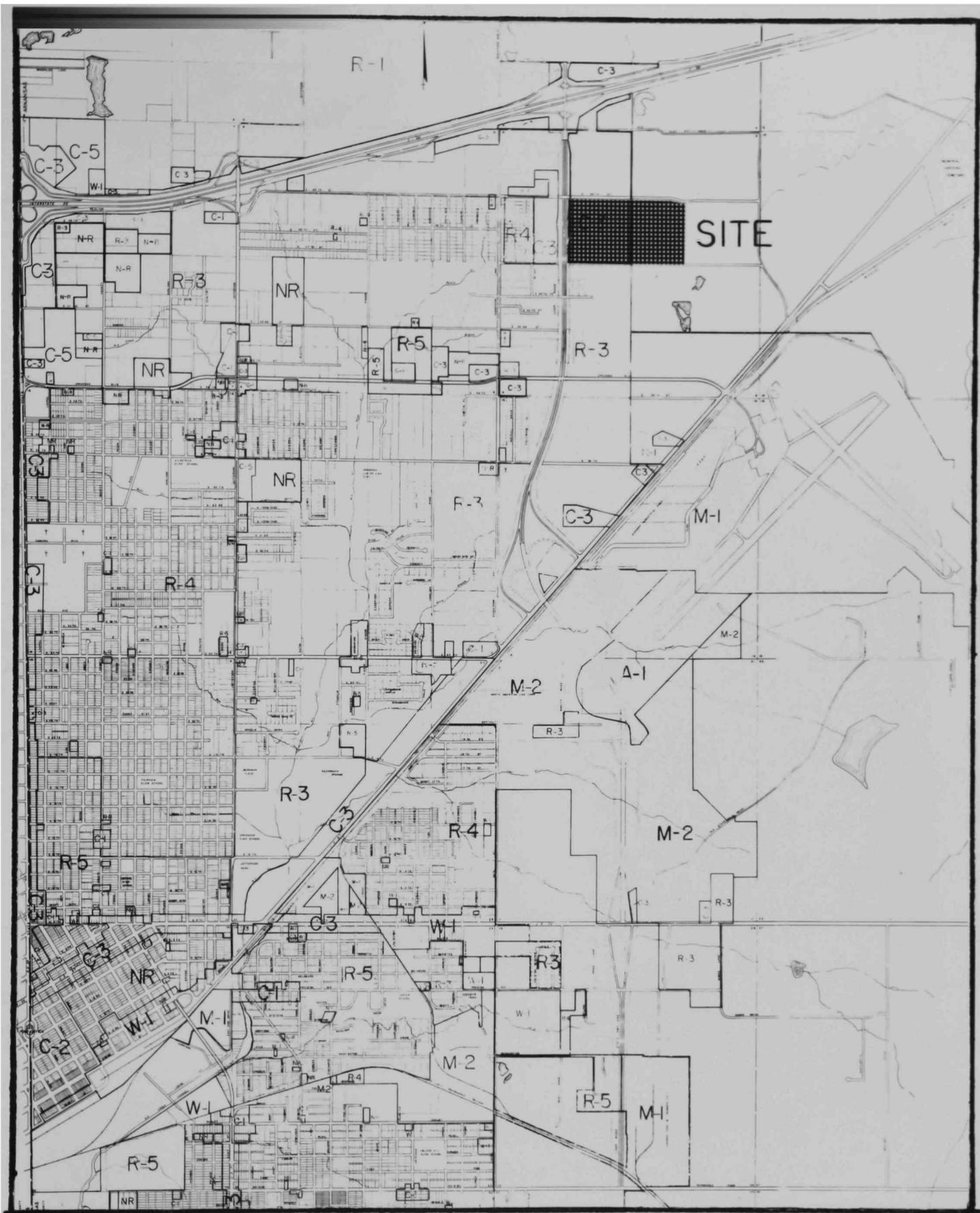
<u>Type-Use</u>	<u>Area-% of Total</u>
Single-Family Residence	40%
Two-Family Residence	1%
Multi-Family Residence	3%
Public and Semi-public	8%
Park	3%
Retail	4%
Commercial	5%
Light Industry	2%
Heavy Industry	5%
Railroad	4%
Streets and Alleys	25%

The following map shows all of the uses in their location in Texarkana.

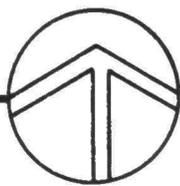


LAND USE MAP





ZONING MAP



GOALS

T0: Promote and satisfy man's need for fellowship with one another.

T0: Produce a balance of human, animal and mechanical systems in this facility.

T0: Provide, through building design, orientation to all users groups.

T0: Produce an overall, comprehensive master plan that adequately serves the user's needs now and allows for easy and economical expansion in the future.

T0: Produce a design that will allow participation and observation by all fair goers to the degree requested in the activity analysis.

T0: Create a facility that can be maintained and monitored easily by the staff, both during the fair and throughout the year.

T0: Make maximum use of the natural outdoor features of the site.

OBJECTIVES

THE FACILITIES should present themselves in an interesting and respectable manner to those traveling on Loop 245.

THE STRUCTURES should provide the necessary environmental conditions for the different types of activities carried on in each structure.

THE FACILITY should include a main orientation point, both inside and out, and also provide secondary points of reference.

THE FACILITY must present opportunities for group and individual use as well as different rates and amounts of use by different user groups.

THE FACILITY should present an opportunity and direction for expansion and growth.

THE STRUCTURES must allow for change in exhibition design that occurs continuously.

THE GROUNDS should flow freely over the natural terrain of the site.

ARRIVAL

Arrival to any building or complex always gives a person his first sense of what the facility is. It also gives a person the first sense of orientation. First and last impressions are lasting ones. The image perceived at the point of entry and exit determine a person's anticipation or reluctance to enter or return to a building. In order to promote attendance, first and last impressions should be interesting and exciting rather than dull and monotonous.

The first instance of arrival is very quick. It includes the automobile driver passing by the site. The time in which the driver draws his conclusions about the site is very short since departure comes only seconds after arrival. Some sort of image should be present in order to orientate the driver.

Parking automobiles by the user, staff and exhibitors is the next step in the arrival process. For the user, parking should be a quick experience. Most people do not wish to loiter about their cars after parking. They wish to proceed forward into the grounds. The staff also does not wish to waste any time in entry into the support facilities. Exhibitors will sometimes be pulling a trailer. Whether it is a stock trailer or small transport trailer, provisions for these

vehicle's entry onto the grounds is extremely important.²⁸

Entry for the user is the first step in the orientation process. Most people are frequent visitors and know where they want to go. Younger age groups tend to be in a hurry to pass through the entry, while older persons take their time. Staff entry into the facility is usually into a meeting point for receipt of assigned tasks. Exhibitor entry is usually compounded with the exhibits in tow. The exhibitors are concerned with a safe trip for their exhibition. They wish to proceed directly to their assigned display area.²⁹

Orientation is mainly for the user. Knowledge of where they are is important to some who have a specific area to attend, while not important to those who wish to meander through the facility. Exhibitors usually know where to proceed to or are helped by an entry representative.

Requirements for arrival: Readily accessible

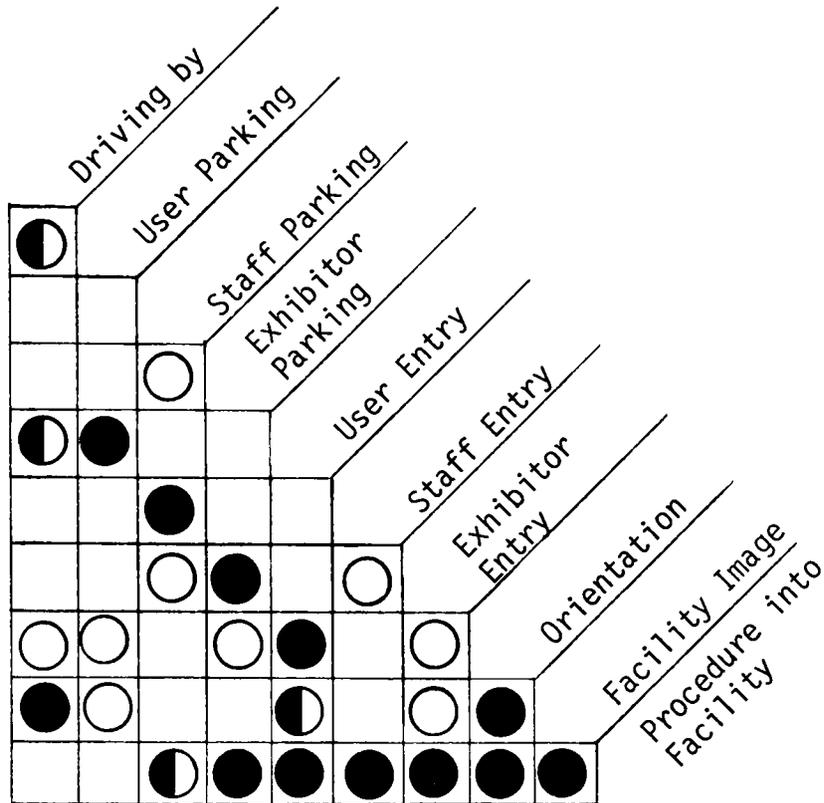
Area adequate to serve peak loads

Well defined entry process

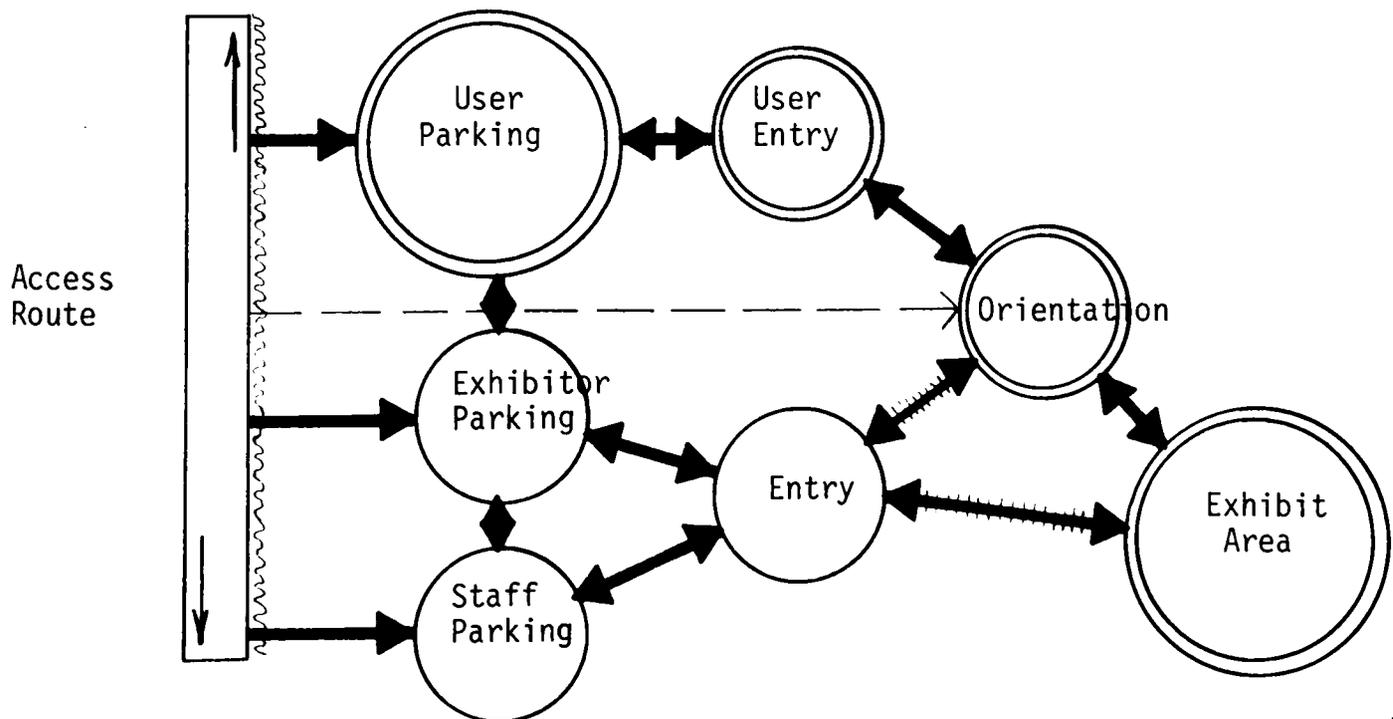
Sufficient orientation opportunities

ACTIVITY	TIME/FREQUENCY	QUANTITY
User Parking	Mainly Afternoon/Night	5,000 Autos
Staff and Official Parking	8am - 5pm/Mon. - Fri. Evenings during meetings	50 - 75 Autos
Exhibitor Parking	8am - 12pm During week of fair	300 General Autos 500 Livestock Autos
User Entry	M-F Afternoon/Evenings Sat. - All day	35,000 People/Day 50,000 People/Sat.
Staff Entry	8am - 5pm 6pm - 9pm	7 - 10/Day 30 - 40/Mtg. Day
Exhibitor Entry	8am - 5pm Sunday before fair	750 People

ACTIVITY RELATIONSHIPS



FLOW DIAGRAM



SYMBOL LEGEND³⁰

	Traditional Flow		Open Public Area
	Visual Flow		Semi-Private Area
	Audio Flow		Private Area
	Acoustical Privacy		Personnel Area
	Conditional Flow		

EXHIBITIONS

Man's need to exhibit his work is one of the most important forms of self expression. Exhibitions allow those people who take pride in their work or their exhibit a chance to receive an outside opinion of their work. Exhibitions in county and state fairs allow for competition between friends and strangers.

Exhibitions are also educational in their nature. People learn from what other people already know. The farmer learns new ideals in framing, while the urban dweller learns where his food bought at the supermarket comes from.

Home arts is one of the most important exhibitions that reminds us of our past based on the development of agriculture and its by-products. Home arts exhibits include canning, household arts, home crafts, baked goods, and educational displays.³¹ Exhibitors bring their goods to the fair at a predetermined time for display. Fair officials then take the products, tag them, and place them in their proper location among other entries. While in exhibition, other people, fair goers and judges, observe their good and bad qualities. At a predetermined time, the exhibit

is judged. Judges move from product to product making their decision.

Requirements: Adequate circulation space
Viewing or sight lines
Accessible to public

Fine arts is the next division of exhibitions. The activities and requirements for these exhibits are the same as those for home arts. These exhibits include horticulture, photographs, paintings and sculpture. The activities included in the antique show and the hobbies show are very similar to those of the above mentioned. In the antique show, cars, fire engines, farm implement, and other large items may be exhibited. Adequate circulation space and arrival modes must be evident.

Agricultural exhibitions include Four-H educational booths, FFA educational displays, agricultural products and projects for the farm shop. Arrival of these larger displays is usually by pick-up truck. Sufficient floor area must be allowed for arrival and display. As mentioned earlier, the public must be free to view all exhibitions. Most people like to stop at these exhibitions and view new developments in agriculture.³²

Civic exhibitions are more active than most. These consist of armed forces exhibitions, local clubs and organizations and any public office that supplies exhibits. Users move in and about these exhibitions. Guides usually lead

people around and explain these exhibitions.

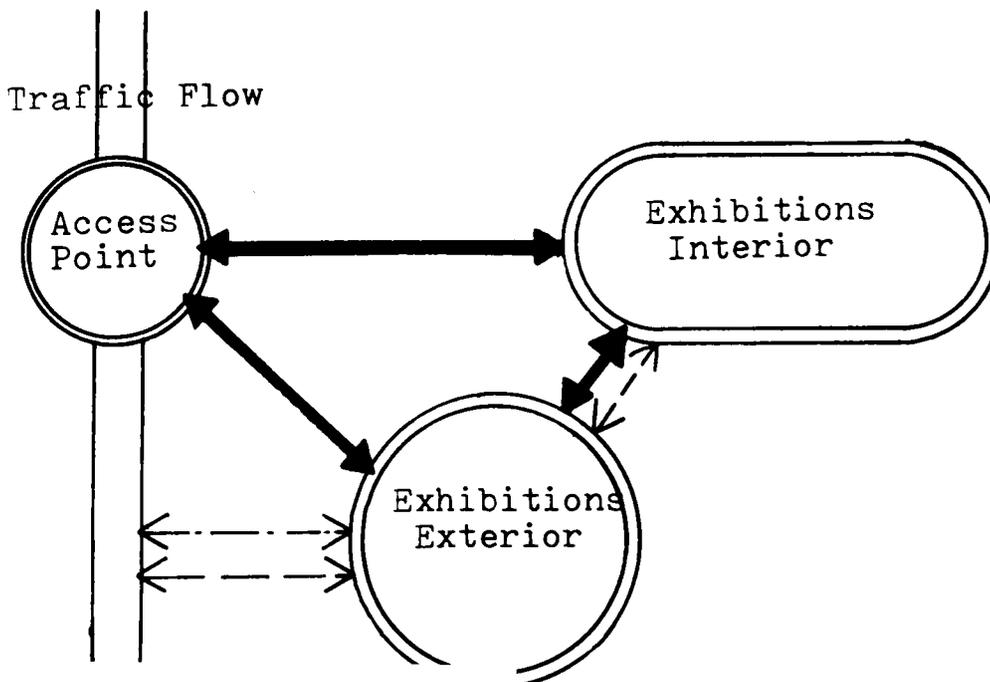
Requirements: Easy access

Open air areas - ventilation

Good view into exhibitions

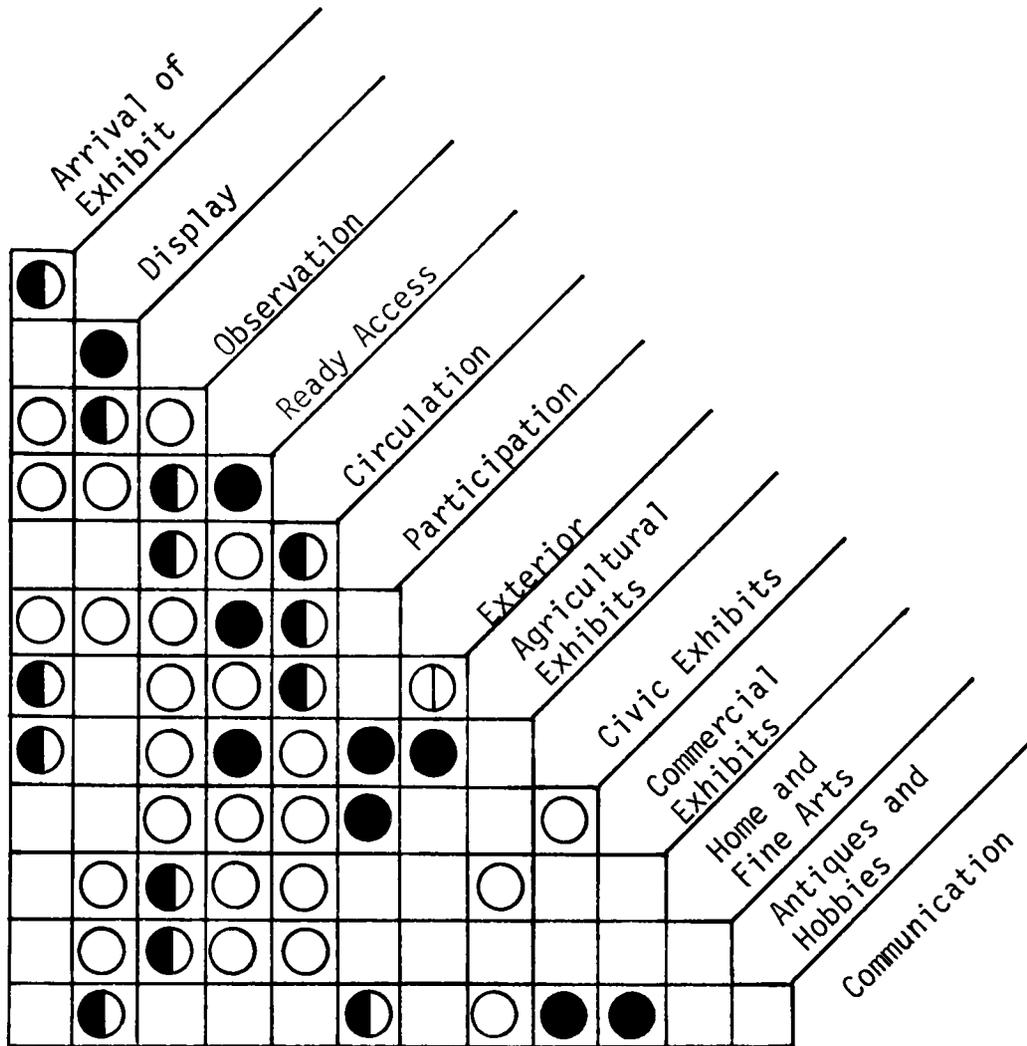
Commercial exhibitions consist of local and national business exhibitions. Many companies will bring an example of what they sell or build to the fair. They also offer gifts with the use of raffles to attract fair goers. Many people attend these exhibits to just see what is offered. They meander among the exhibits only stopping at the ones that catch their interest. Exhibitors usually man these exhibits giving out information and visiting with fair goers.³³

ACTIVITY	QUANTITY	TIME	FREQUENCY
Agricultural Exhibit	40	10 am - 10 pm	1,500/Hr.
Civic Exhibit	20	4 pm - 11 pm	1,000/Hr.
Commercial Exhibit	55-75	4 pm - 11 pm	2,500/Hr.
Home and Fine Arts	175-225	4 pm - 10 pm	1,500/Hr.
Antiques/Hobbies	30	4 pm - 10 pm	1,000/Hr.



FLOW DIAGRAM

ACTIVITY RELATIONSHIPS



LIVESTOCK EXHIBITIONS

Livestock exhibits include cattle, rabbits, poultry and a children's animal show. Poultry and rabbits are usually exhibited in wire cages. Exhibitors bring their animals at the beginning of the fair and care for them during its entirety. Care includes feeding and grooming the animal.

Fair goers also are allowed to visit this area. Circulation and proper views are again important both to the fair goer and to the judges.

The children's exhibition is geared toward children, ages one to ten. Exhibitions here include every type of farm animal excluding cattle. Parents usually accompany their children to this exhibition. They view the animals and sometimes are allowed by the staff to pet them.

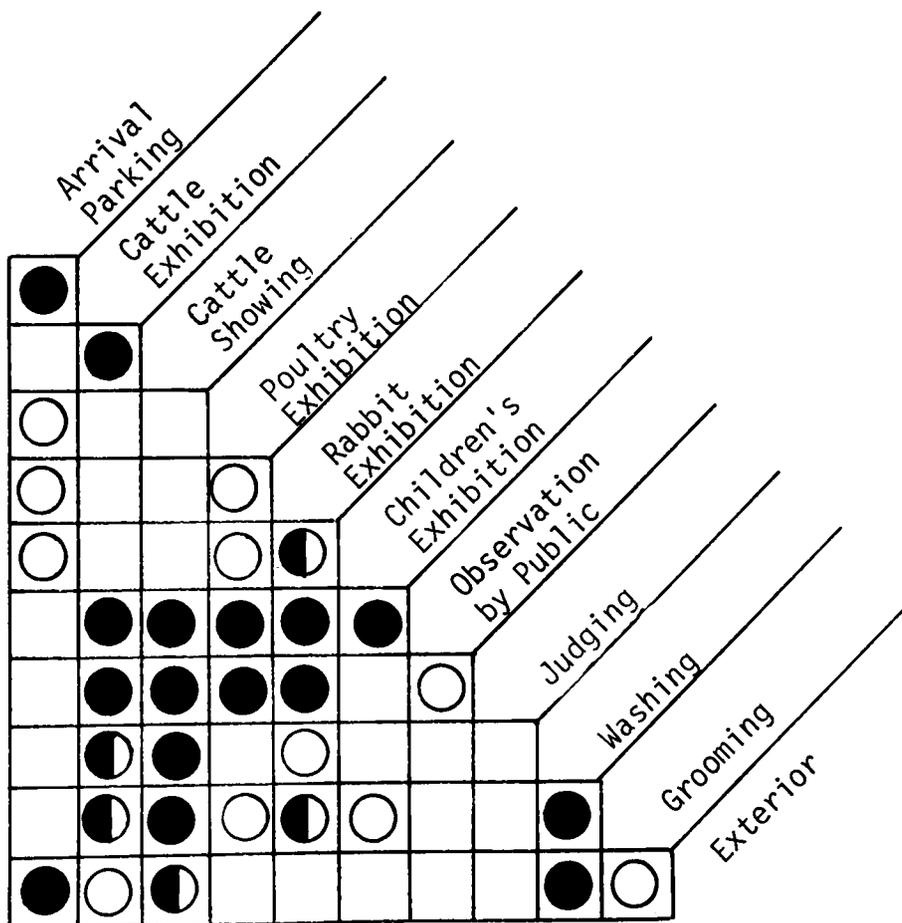
Cattle are shown under both junior and senior livestock divisions. Many different breeds are shown. Some school groups exhibit their cattle in the same location in this area. Arrival is usually in stock trailers. Sufficient area should be allowed for these vehicles. Care for the animals includes washing, watering, grooming and removal of excrements. These activities take place throughout the fair.³⁴

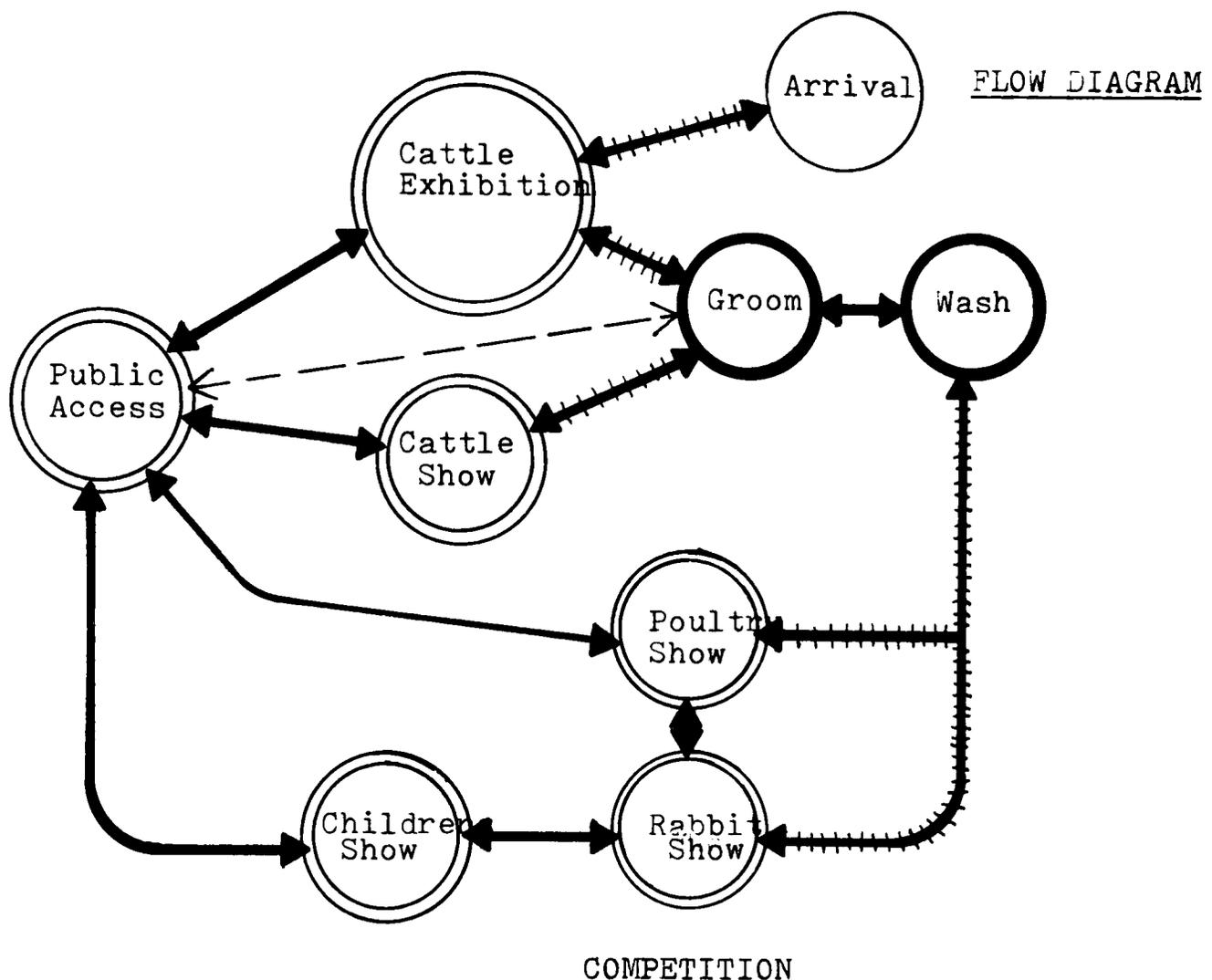
Showing the cattle is the culmination of many hours of work. All cattle in a particular breed are brought together in a common place to be seen and judged. Many interested parties view this event. During the show, the cattle are led in a circle and then stopped for viewing.

Provisions must be made for both traffic to and from the showing area. Exhibitions must be open to the public for easy viewing.³⁵

ACTIVITY	QUANTITY	TIME	FREQUENCY
Cattle Exhibit	800	10 am - 10 pm	1,500/Hr.
Poultry Exhibit	150	10 am - 10 pm	500/Hr.
Rabbit Exhibit	100	10 am - 10 pm	500/Hr.
Children's Exhibit	45-50	10 am - 10 pm	1,200/Hr.
Washing/Grooming	800	Morning/Afternoon	Sat. Before Show
Cattle Show	800	All Day Saturday	500-750/Show

ACTIVITY RELATIONSHIP





Several competitions are held each year at the fair. The one drawing the most entries is the twirling festival. In this competition, twirlers compete individually and in groups. They usually practice before the time to compete arrives. During the competition, 100 to 150 people are watching. There should also be areas for the judges to view the competition. At the end of this competition is an awards ceremony.

Requirements: Adequate space for twirlers

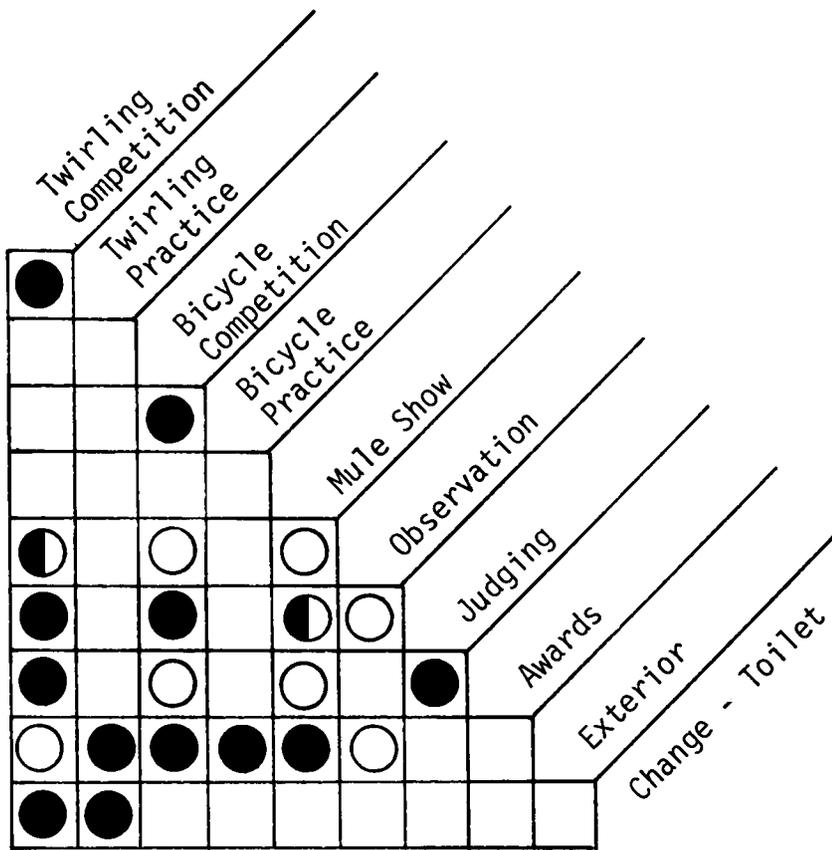
Judging and observation

Another competition held is the mule show. During this

show, mules are urged by their handlers to jum a high jump, pull the most weight and race each other. Judging and observation areas must be provided in this area, also. The last competition held is the bicycle skills competition. During this event, young boys and girls are tested on their driving skills. This requires a level surface and sufficient area for competition and practice. The one personality contest held at the fair is the Mr. and Miss Western Week Contest. In this contest, held on a weekday morning, parents bring their five and six year olds in their best western dress for selection as the contest winners. During this contest, parents help their children into position. Here they are judged and observed by their parents.³⁶

ACTIVITY	TIME	QUANTITY	FREQUENCY
Twirling Competition	6 pm - 9 pm 10 am - 5 pm Sat.	117 Individuals 26 Teams	200-250/Hr.
Twirling Practice	5 pm - 9 pm Sat. 10 am - 5 pm Sat.	26 Teams 26 Teams	0-10/Hr.
Bicycle Competition	10 am - 2 pm Sat.	22 Individuals	20-50/Hr.
Mule Show	10 am - 2 pm Sat.	10	300-400/Hr.

ACTIVITY RELATIONSHIPS



RODEO ACTIVITIES

The first rodeo activity occurs on the first day of the fair. This is the horse show. The exhibitors bring their animals in on only one day. This relieves all of the problems such as permanent exhibitions. Adequate space should be allowed for their arrival. After arrival, preparation for showing is begun. The animals must be groomed after their trip. After grooming, the showing begins. Owners bring their animals before observers and judges. They make their decisions and award prizes.³⁷

Requirements: Space for arrival process

Facilities for observation

Team roping is also held on the first day of the fair. This involves the previous referenced activities concerning horse grooming, judging and observation. The actual event involves two people on two horses roping one cow - one around the horns and one around the hind legs. To accomplish this, the cow is released two to three seconds before the cowboys' pursuit.

Also held during the rodeo activities at night, is the parade of rodeo queen contestants. They each ride their horse out before the observers and judging. The final night, the winner is announced and crowned.³⁸

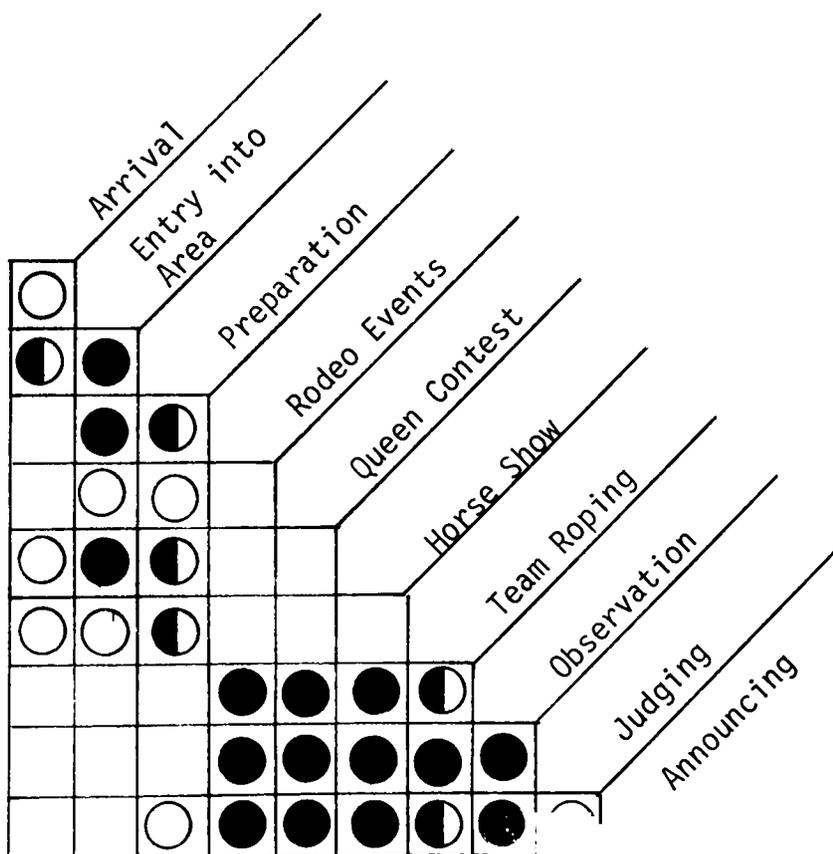
The rodeo events are held each night with finals being held on Saturday, the last night of the fair. This is attended by 5,000 to 6,000 persons each night. The cowboys are professionals that travel the PRCA circuit. Judges are also supplied by the circuit.³⁹

The events include steer wrestling, bare-back bronc riding, bull riding, barrel racing and calf roping. The process by which these events are carried out is governed by the PRCA. These rules will be included in the code considerations. Entry of animals and participants will be governed by these regulations. Facilities should be provided for storage of and access to the area where the events are held. Judging and

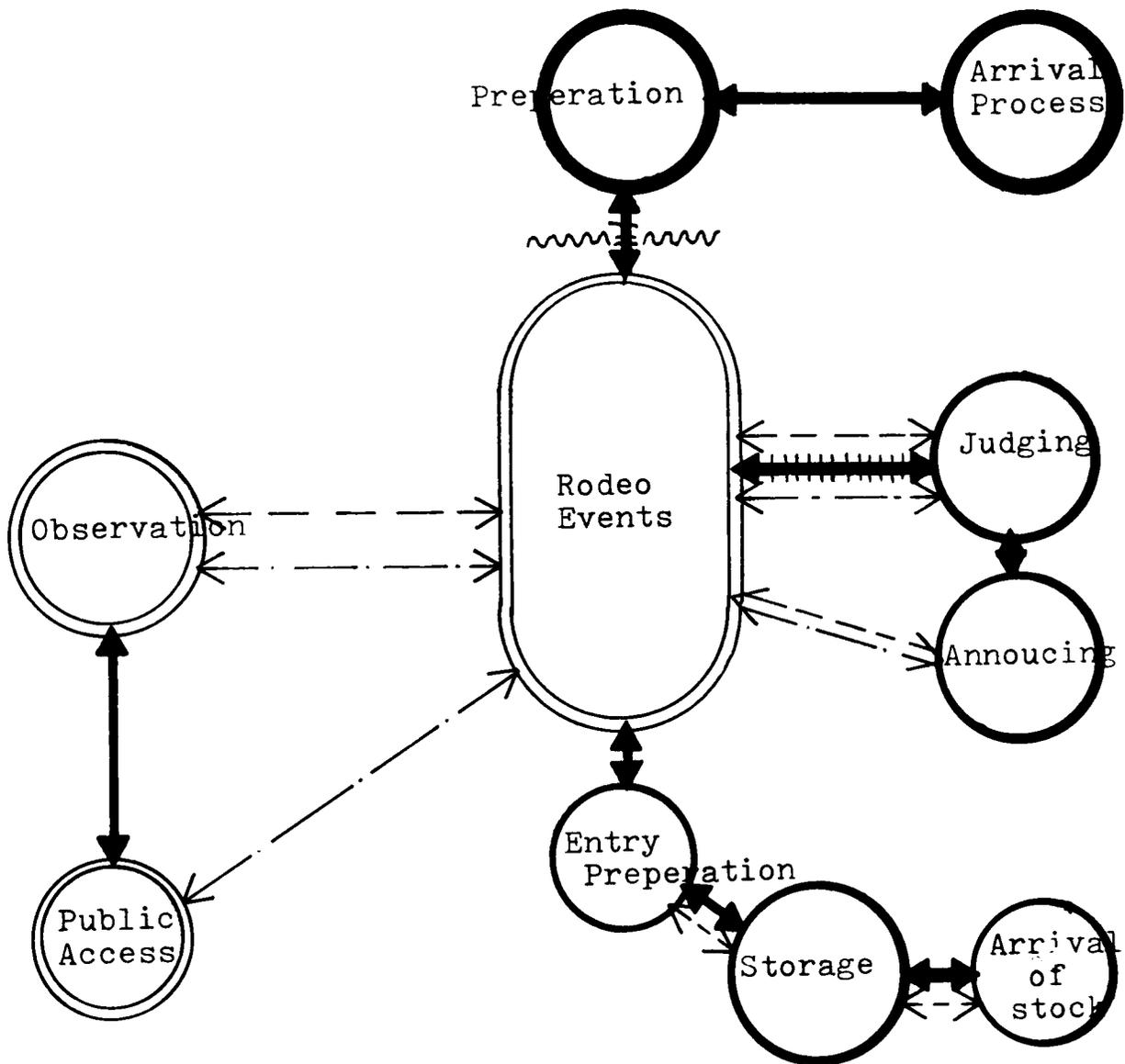
announcing require a position higher than the horizontal level of the events area.⁴⁰

ACTIVITY	TIME	QUANTITY	FREQUENCY
Rodeo Events	7 pm - 10 pm	Varies	5,000/Night
Horse Show	12 pm - 5 pm	312 Entries	600 - 750/Night
Judging	7 pm - 10 pm	5 - 7	---
Preparation	4 pm - 10 pm	25 - 40	---

ACTIVITY RELATIONSHIPS



FLOW DIAGRAM



MIDWAY ACTIVITIES

Midway personnel arrive the day before the fair to set up their attractions. They bring their equipment on large and small trucks. Many people are involved in this preparation.

Attending the midway, are most fair goers with a concentration of young people.⁴¹ During attendance, they walk and observe others, purchase tickets, wait for rides, ride and participate in games. Many different games and rides exist. There are no restrictions on who participates in which activities. There are some food service facilities in this area also. A large part of the older attenders only participate by observing their children and other people. The midway is operated by a traveling group of operators. They live and work on the fairgrounds most of each summer and fall. They bring their recreational vehicles onto the grounds.

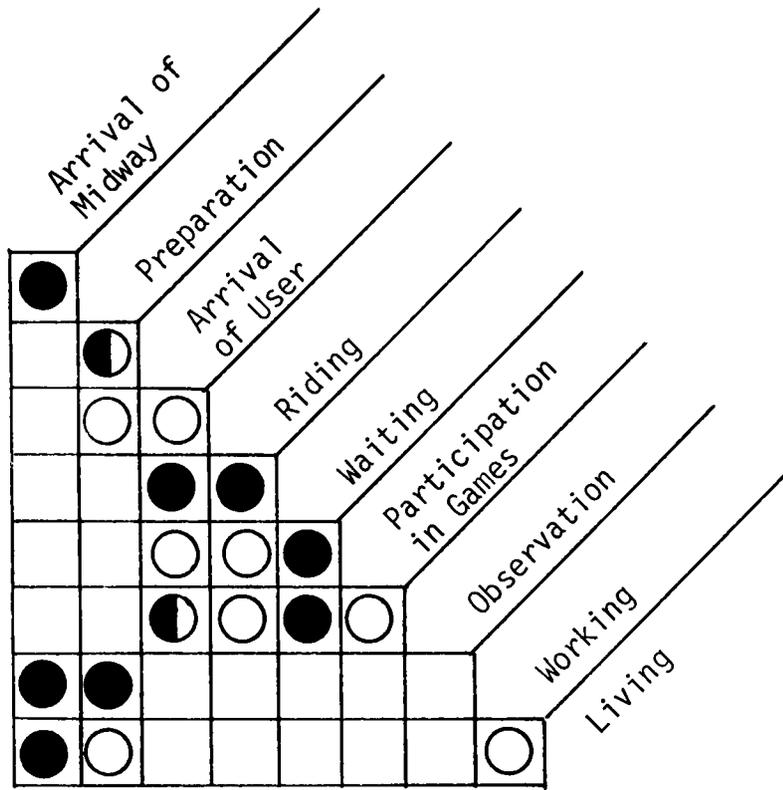
Requirements: Support for RV's

Flexibile area for midway.

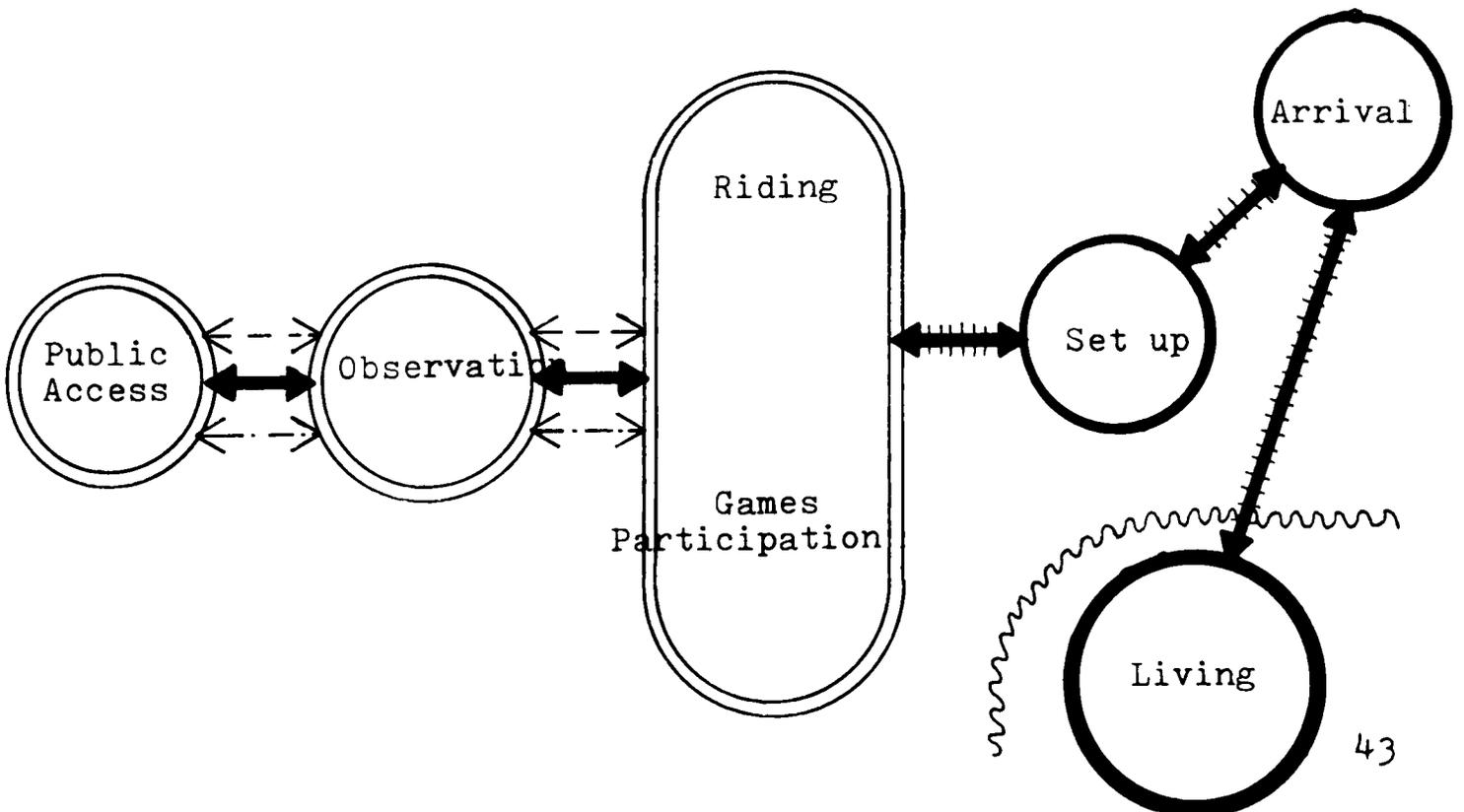
Also operating on the grounds is what is called an independent midway. Preparation and attendance is the same as the midway proper. There are no rides in this midway.⁴²

ACTIVITY	TIME	QUANTITY	FREQUENCY
Arrival	3 am - 10 pm Sun.	100 Vehicles	---
Preparation	12 pm Weekdays 10 am Saturday	65 - 100 Events	---
Riding	2 pm - 12 pm Daily	20 Rides	40 - 60/10 min.
Observation	2 pm - 12 pm	20,000/Night	---
Living	Sunday - Saturday	75 - 85 RV's	---

ACTIVITY RELATIONSHIPS



FLOW DIAGRAM



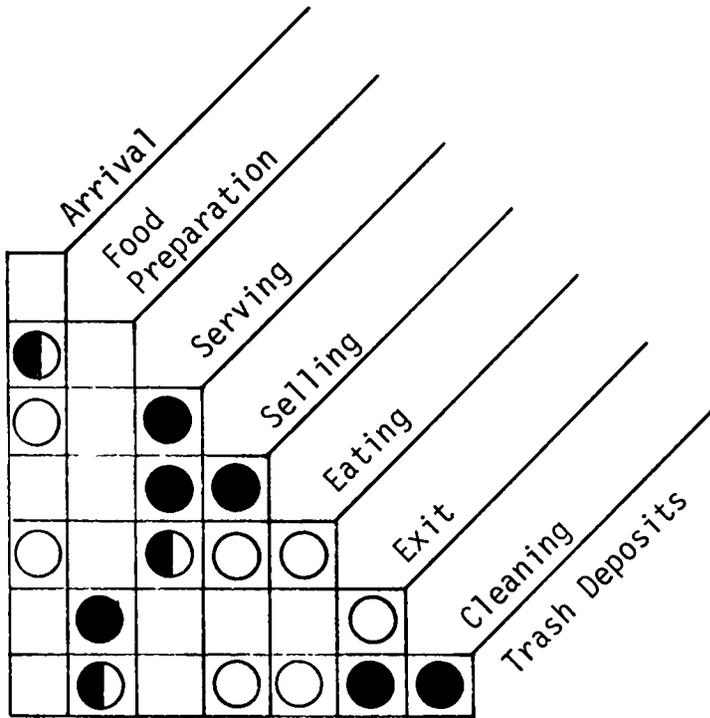
EATING

The primary activity of eating requires many secondary activities to make it succeed, the first of which is food preparation. Food preparation goes on under several staff groups. Eight of these are charity operations. They serve as a complete meal that can be found on the grounds. To do this, they require most all of the cooking equipment and cleaning equipment. Smaller concessions operate on a reduced scale with only one or two operators and only serving one or two dishes compared with the ten to twelve operators of the larger sit down charity operations. Fifteen to twenty small concessions will be operated throughout the grounds while the eight charity operations are located around the exhibits.⁴³

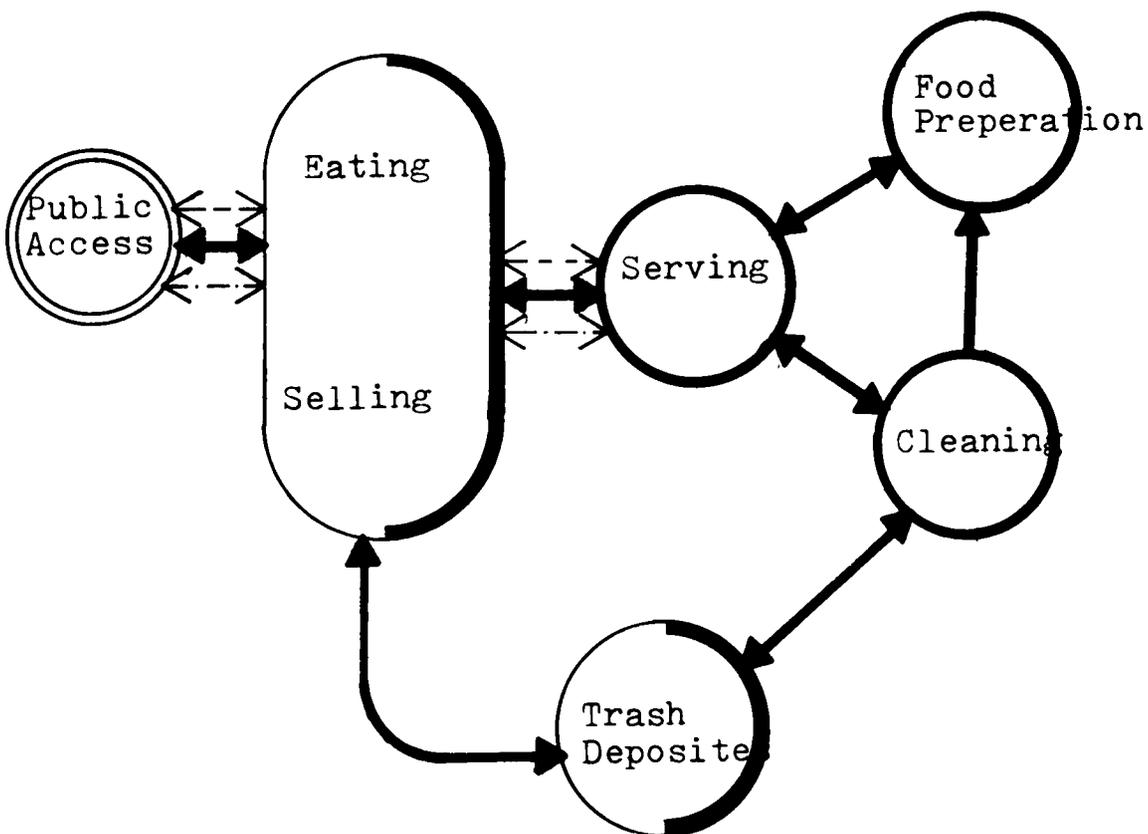
As mentioned earlier, a customer will walk up to a concession and take his purchase with him. The customer of the charity operation will sit down and eat his meal. Food is served and money is taken. Remains of the meal is then deposited in the appropriate container.

Requirements: Support facilities for food preparation⁴⁴
Areas for customer use
Compliance with codes

ACTIVITY RELATIONSHIPS



FLOW DIAGRAM



OPERATIONS CONTROL

Controlling the fair is a gigantic task. Members of civic groups usually volunteer their services as watchers over each activity. They wear a colored vest to indicate their status and position themselves at entry and exit of each activity. They are not guards but rather information givers and direction givers. The National Guard provides military police each day and night of the fair. They roam about each and all activities in small groups. By law, there are always ambulance crews and fire department crews on duty at all times during the fair.⁴⁵

During the rest of the year, excluding the fair, coordination activities are taking place. These are Fair Association meetings, director operation and secretarial activities associated with each. There is usually one director present at all times during the year. Two secretaries perform office activities as per his/her request. Many times of the year, the Fair Association president comes and works with the director and staff. As fair week approaches, the Fair Association meetings are held more frequently.⁴⁶

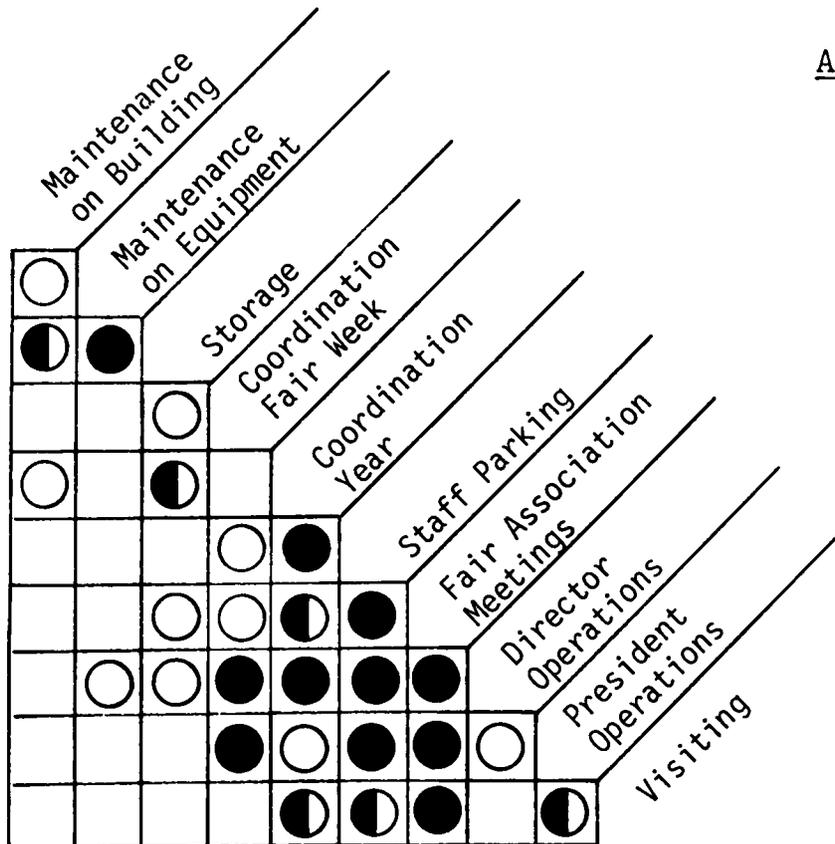
There are also grounds attendants employed by the Association. They conduct the job of grounds and building maintenance. During the week of the fair, temporary help is added to cover the load. Also, their required task is storage of much equipment during the off time from the fair. They store

grounds equipment and tools to work on that equipment and items such as chairs, barricades and temporary canvas awnings and partitions.

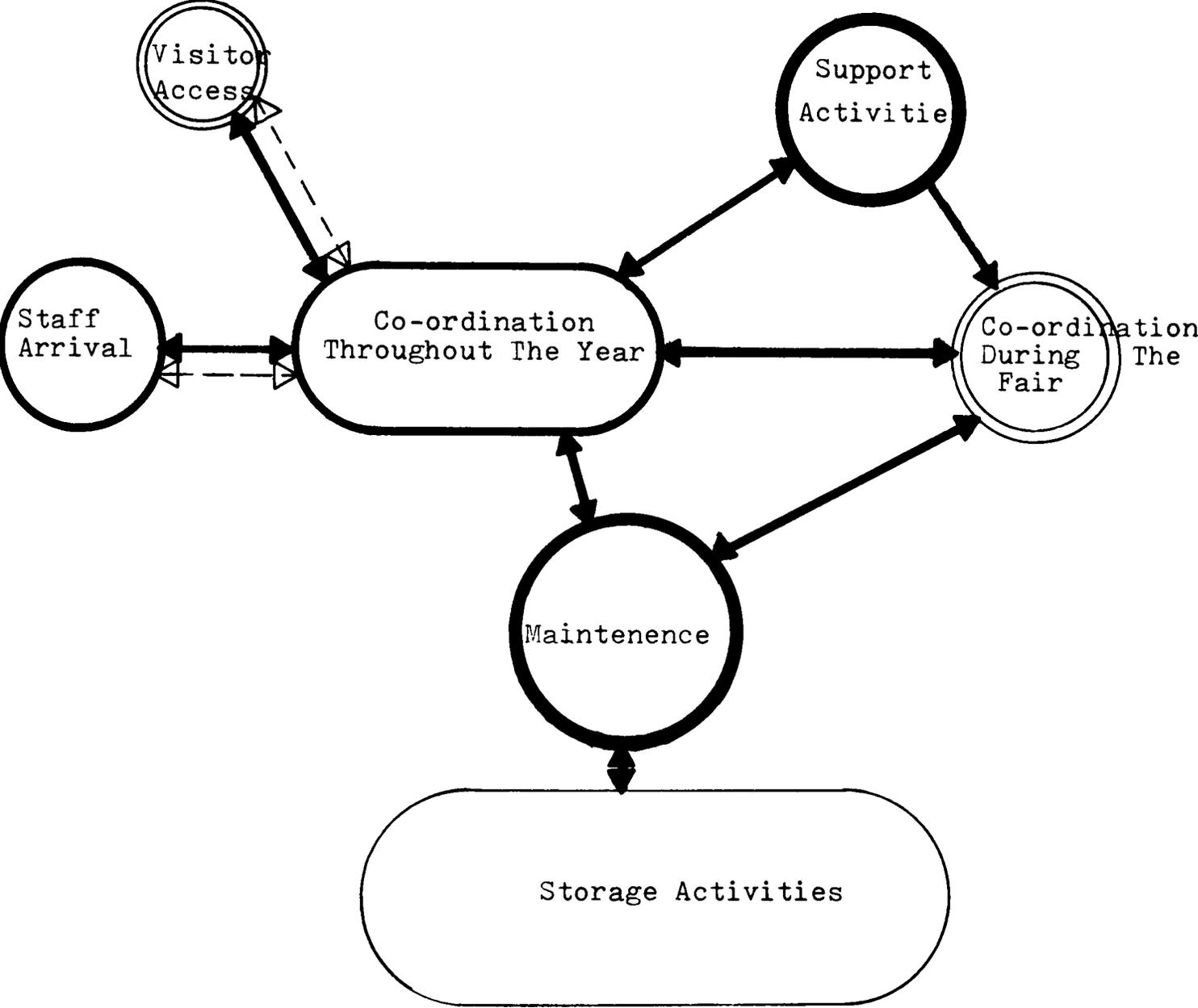
- Requirements: Storage activities⁴⁷
 Maintenance activities
 Coordinate supervision
 Coordination point during fair week

ACTIVITY	TIME	QUANTITY
Maintenance	Monday - Friday	2/Day
Storage	Before and After Fair	5 - 10/Day
Coordination Fair Week	During Fair	10/Day
Coordination During Year	8 am - 5 pm/Mon.-Fri.	6 - 8/Day
Fair Association Meeting	6 pm - 9 pm	20 - 50/Night

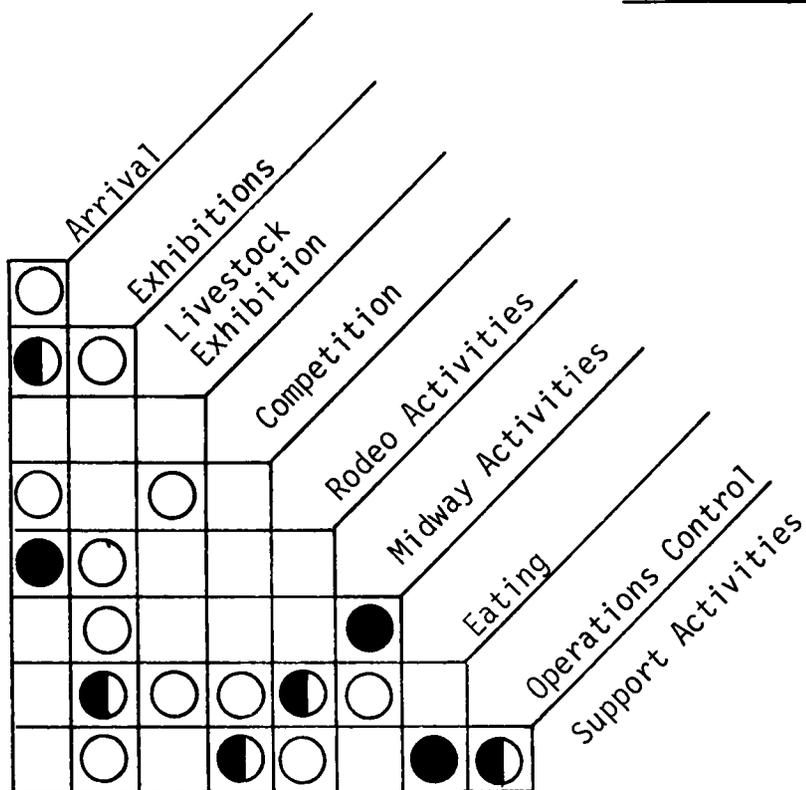
ACTIVITY RELATIONSHIPS



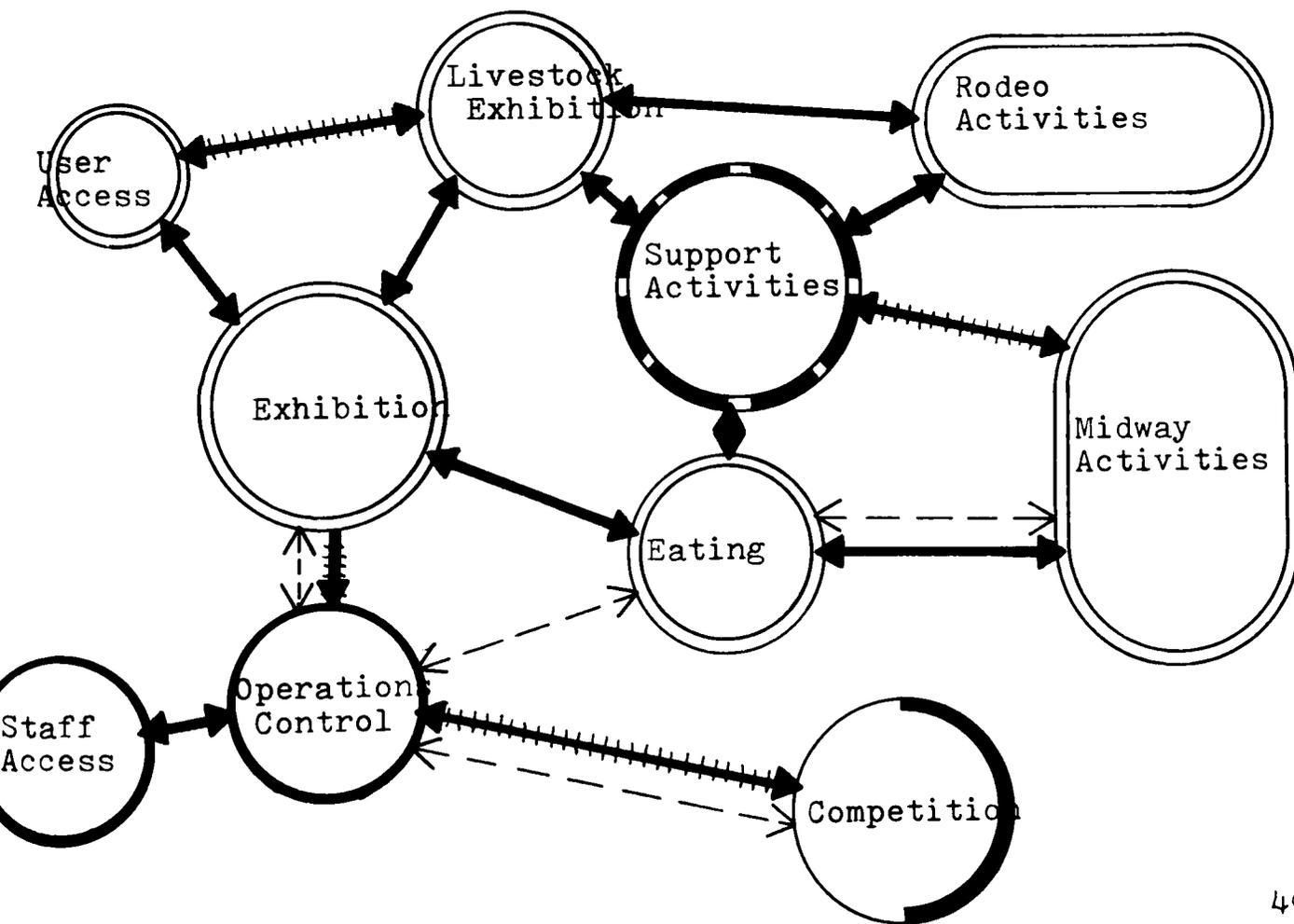
FLOW DIAGRAM



PRIMARY ACTIVITY RELATIONSHIPS

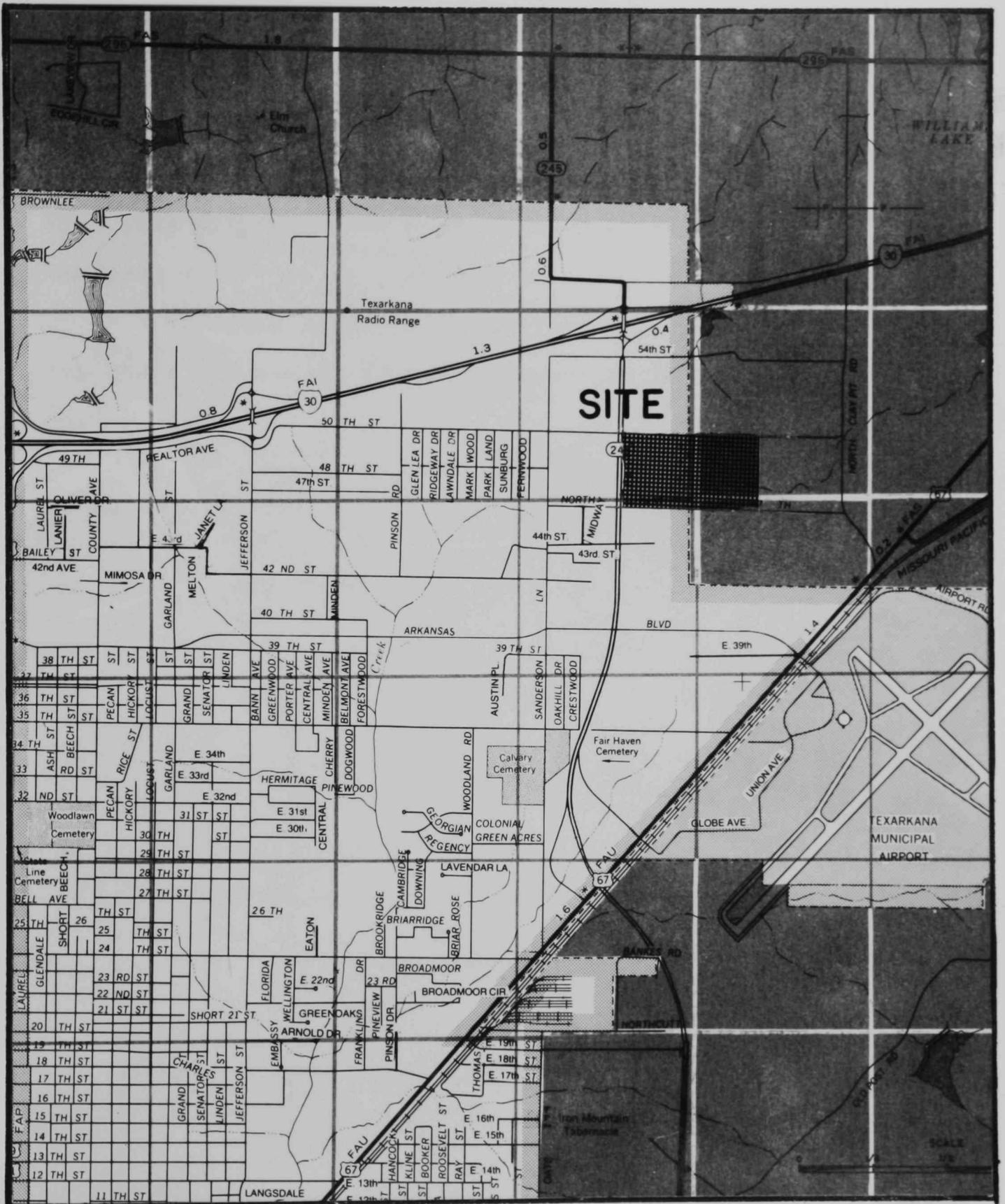


FLOW DIAGRAM

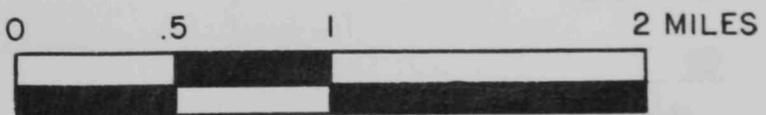


LOCATION

The proposed site is located on the northwest corner of Texarkana on the Arkansas-side of town. This was the site offered to the Fair Association by the city of Texarkana, Arkansas. It is located near the intersection of Interstate 30 and Loop 245, a four lane, limited access, divided highway. The total area of the site is eighty acres. Its location along major traffic arteries greatly improves the selection of this site.



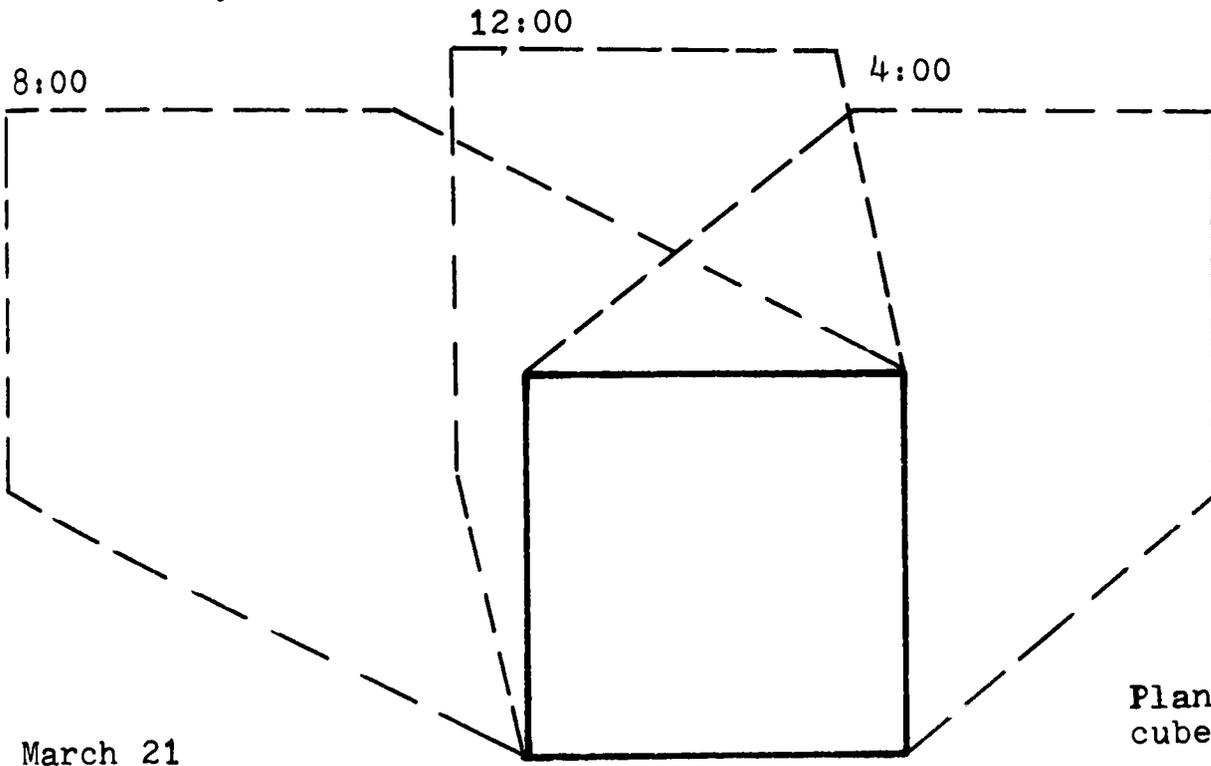
SITE LOCATION



NATURAL ENVIRONMENTAL CONDITIONS

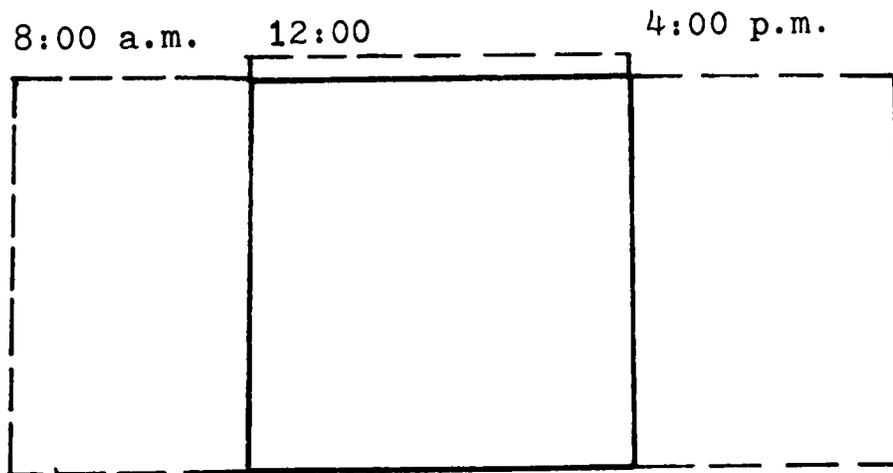
The climatic data listed earlier will still apply to this site with very few micro-climate differences. In an analysis of the climate affects on the site, it is necessary first to produce a sun angle analysis map. The following map shows the movement of shadows across the site for the days listed.

SHADOW MAPS



March 21

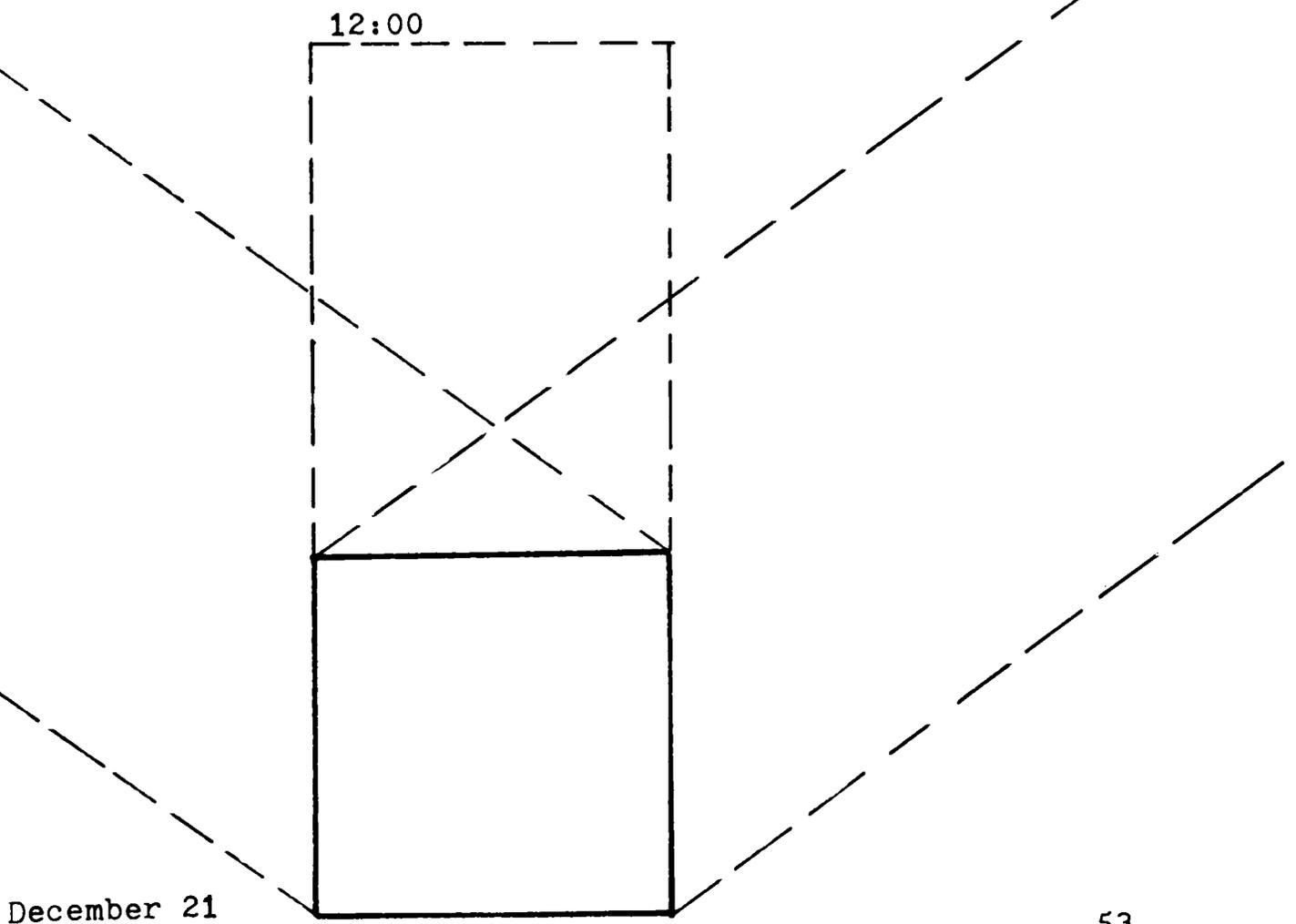
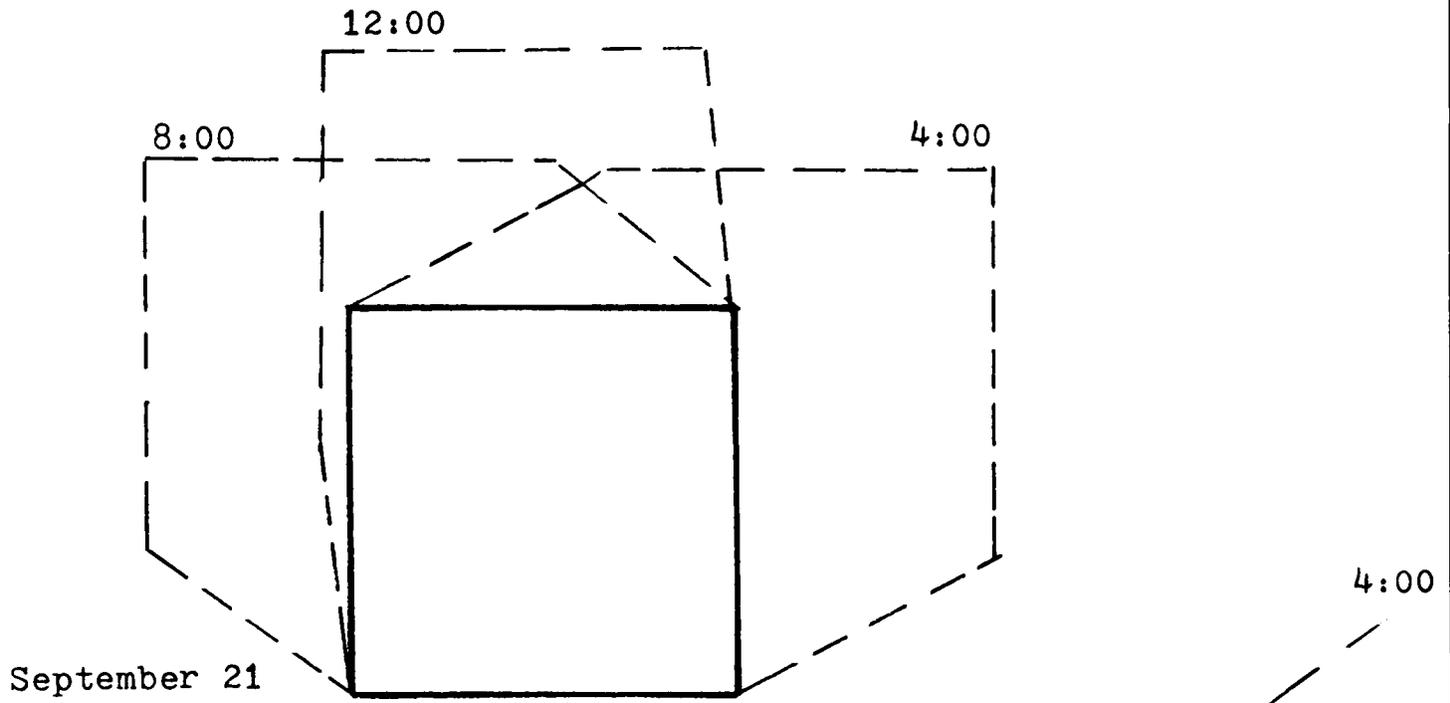
Plan of a 10' x 10' cube
3/16"=1'-0"



June 21

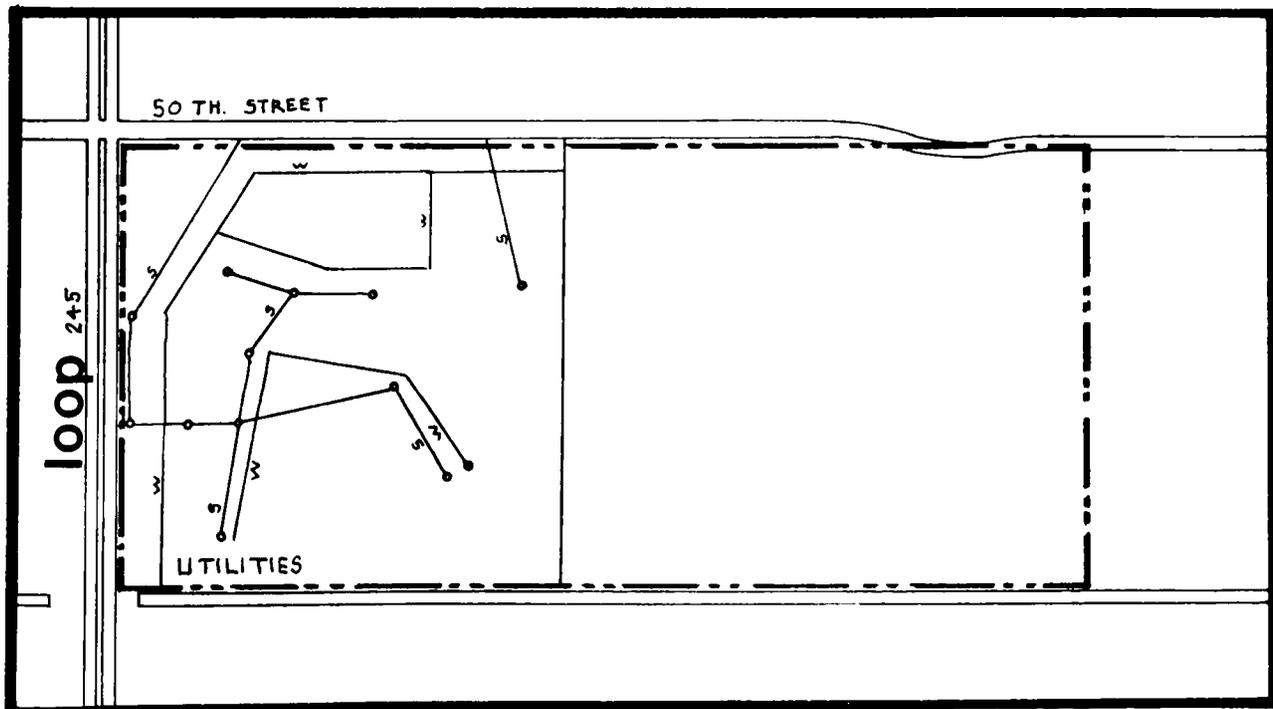
3/16"=1'-0"

SHADOW MAPS



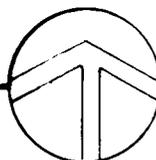
We must try to use the sun to our advantage and not disregard the properties of solar radiation on our buildings and site. The wind information presented earlier should give us a good suggestion concerning placement of order causing activities such as livestock exhibitions.

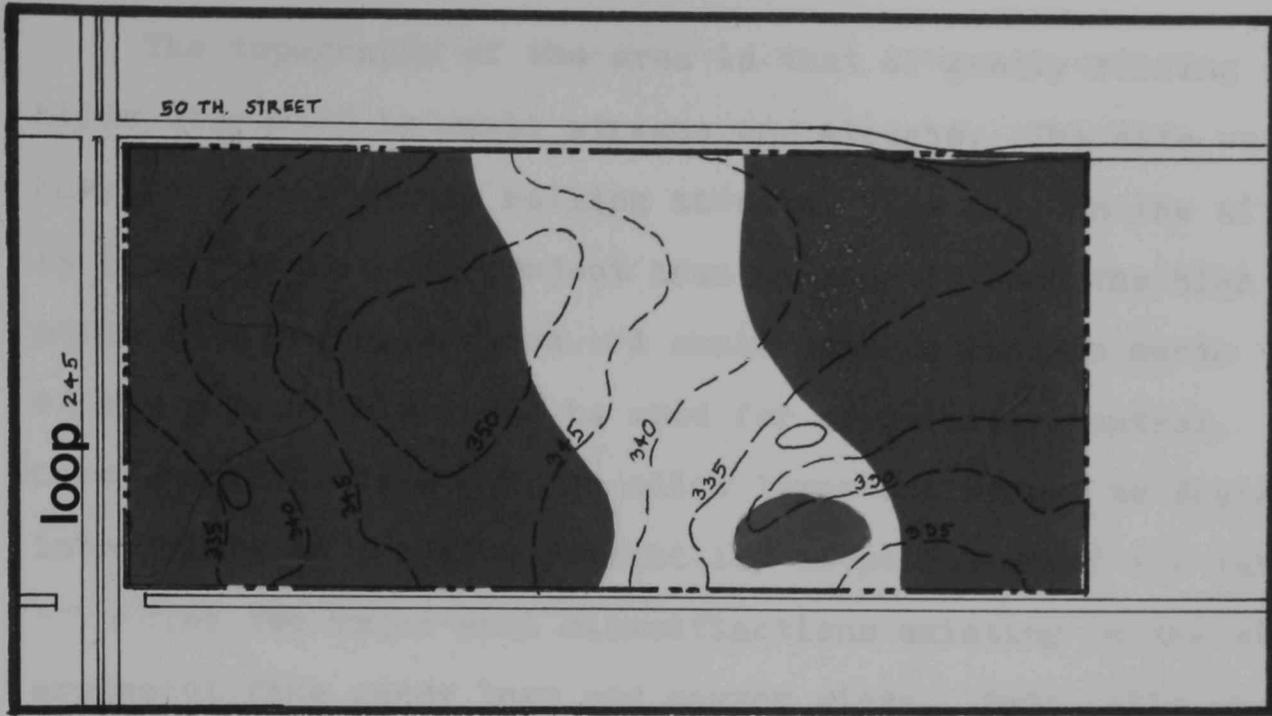
The views away from the site are insignificant compared to the views onto the site. High exposure during fair week is needed both to draw visitors in and help others find their way. The designer should provide good views onto the site. Noise will not be a problem due to the seclusion of the site. Only some highway noise will be evident but this could be a needed background sound. The following plan is a visual explanation of the site analysis.



Man-made Characteristics

SCALE 1" = 600'

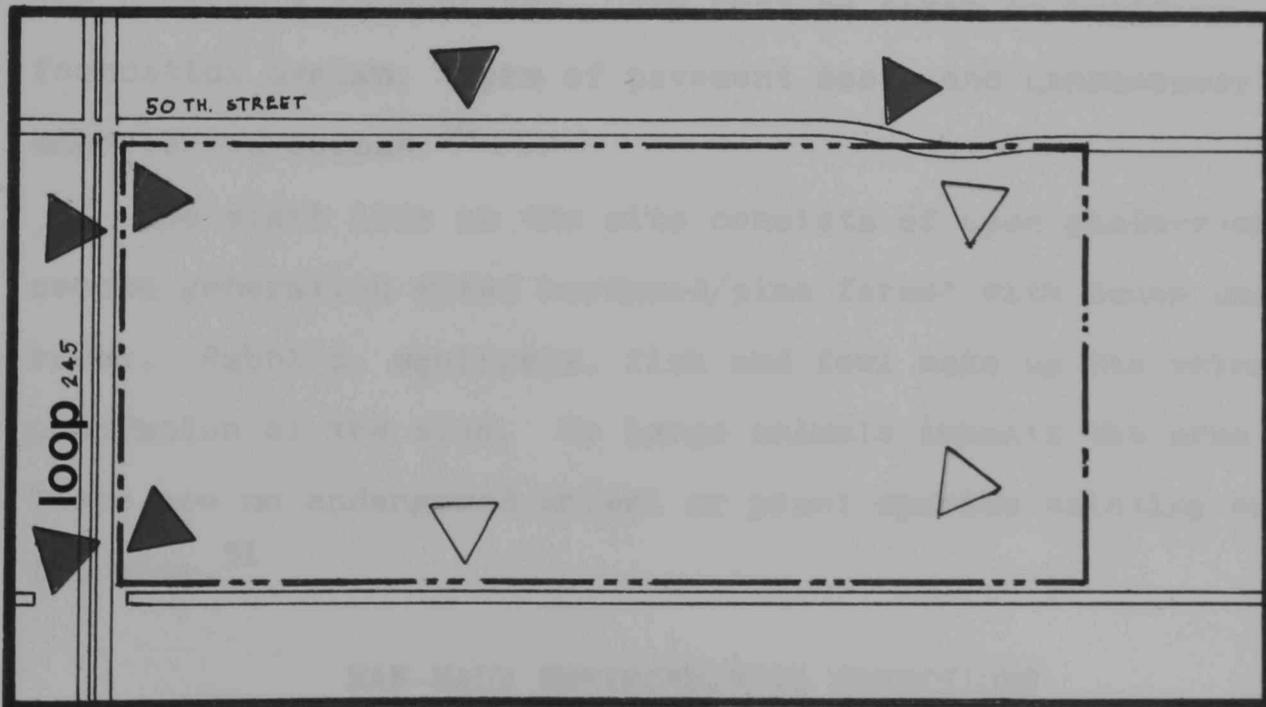
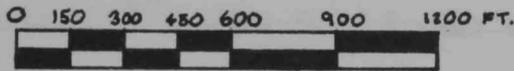




Natural Characteristics



■ Heavy Timber



Views



▶ Good Views

△ Poor Views

The topography of the area is that of gently rolling hills dissected by small streams and sloughs. The site we have is mostly gently rolling terrain. The soil on the site is mostly loam. The project area is located near the high point of three watersheds. A small manmade lake is north of the site. This could be used for storm water control. Care should be taken not to allow livestock wastes to drain into this area due to a possibility of pollution of the lake.⁴⁸

"The two major soil classifications existing on the site are sacul fine sandy loam and sawyer sicts. Both soils are characterized by the U. S. Soil Conservation Service as being slowly permeable with low strength and a high shrink/swell potential. The soils erode easily on severe slopes if not protected."⁴⁹ The soils can be easily worked with to provide the necessary foundation. Care must be taken in building foundation design, types of pavement used, and unnecessary, unprotected scopes.⁵⁰

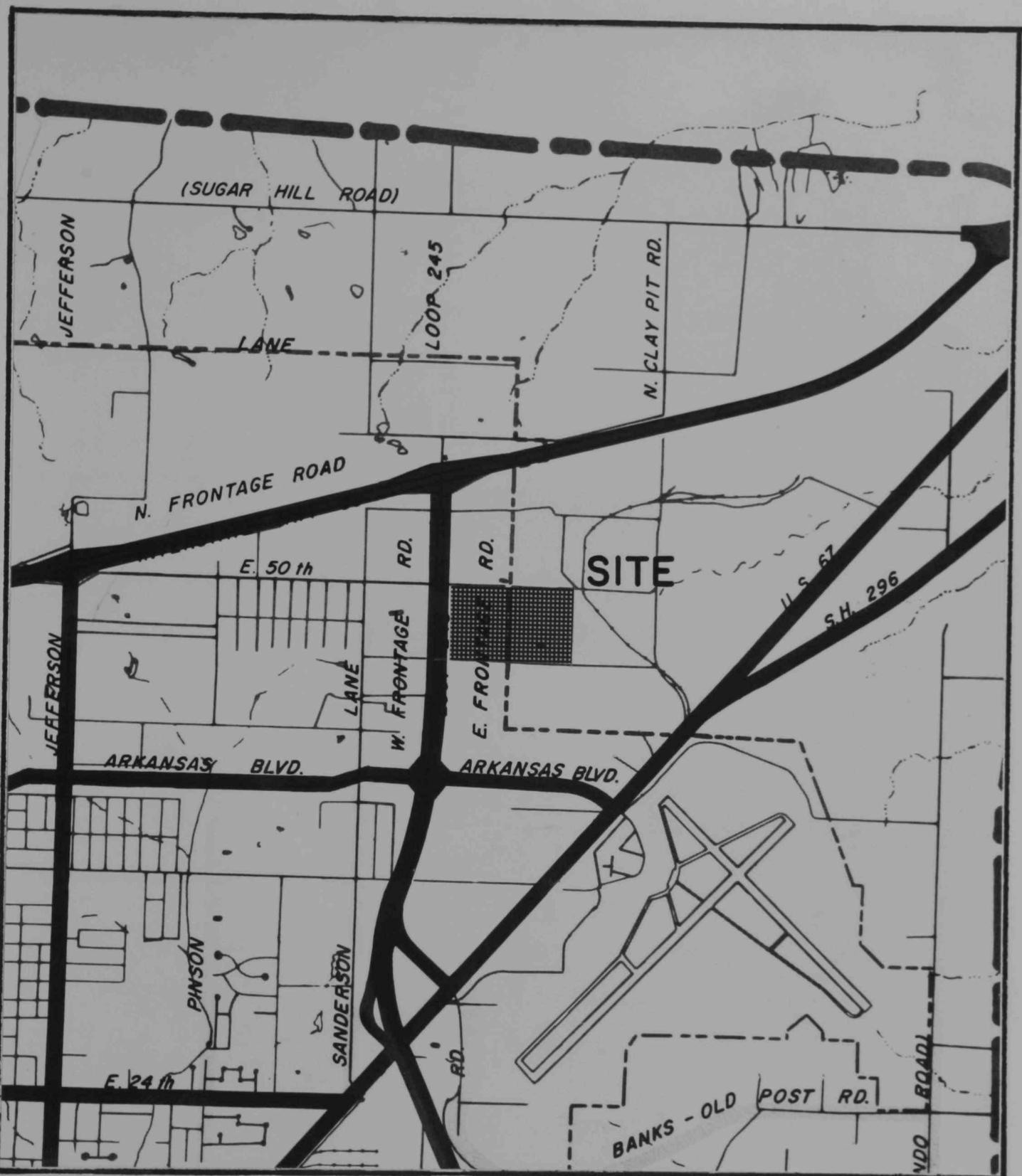
The plant life on the site consists of open pasture and second generation mixed hardwood/pine forest with dense underbrush. Rabbits, squirrels, fish and fowl make up the animal population of the site. No large animals inhabit the area. There are no endangered animal or plant species existing on the site.⁵¹

MAN-MADE ENVIRONMENTAL CONDITIONS

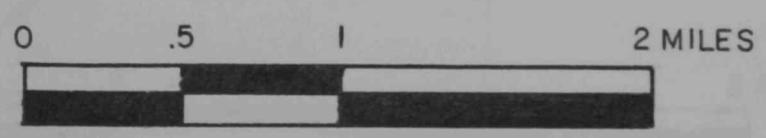
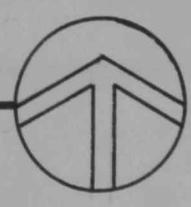
As mentioned before, one of the main advantages of this

site is its location. Interstate 30 is a major east-west highway with Loop 245 being a major north-south highway. Arkansas Boulevard is a major arterial located one mile south of the site. It connects with U. S. Highway 67, a major highway running northeast and southwest. Several collectors serve the area.

"The existing land uses surrounding the site consist of rural residential and farming uses north, east and south of the tract. West of the parcel, the properties are classified as low density urban residential and single family residential with some highway commercial. The airport is located one half mile southeast of the site."⁵² The city is trying to encourage quiet business and light industrial uses around the site, as can be seen with its zoning and subdivision controls evident in the area.⁵³



TRANSPORTATION

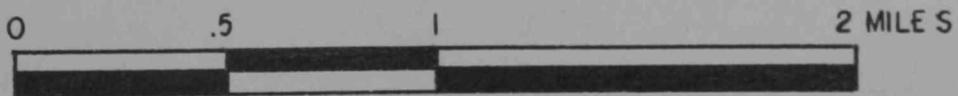




ZONING MAP



- C-3 HIGHWAY COMMERCIAL
- R-4 MEDIUM DENSITY RESIDENTIAL
- W-1 WAREHOUSING
- R-3 SUBURBAN RESIDENTIAL



**SPACE
SUMMARY**



ARRIVAL

SPACE	QTY.	UNIT AREA	TOTAL AREA
PARKING			
User	5,000 Spaces	---	1,462,500 Sq.Ft. or 33 Acres
Staff	75 Spaces	---	22,750 Sq.Ft. or .5 Acres
Exhibitor Parking	300 Spaces	---	46,800 Sq.Ft. or 1.1 Acres
Livestock Parking	500 Spaces	---	290,500 Sq.Ft. <u>or 6.5 Acres</u>
			1,822,550 Sq.Ft. or 41.1 Acres

- Functional Considerations - Relationship to entry onto grounds
 - Relationship to final destination
 - Adequate space for livestock trailers

Source - Graphic standards
 - Client preference

ADMISSION

User-Box Office	1	600 Sq.Ft.	600 Sq.Ft.
Guard House	2 - 3	100 Sq.Ft.	<u>300 Sq.Ft.</u>
			900 Sq.Ft.

- Functional Considerations - Box office should be easily accessible
 - Ticket taker area provided
 - Guard houses for rodeo, exhibitor and livestock vehicle entry

Source - Client preference

EXHIBITION

SPACE	QTY.	UNIT AREA	TOTAL AREA
COMMERCIAL			
Display Booths	80	120 Sq.Ft.	9,600 Sq.Ft.
Restrooms	2	200 Sq.Ft.	400 Sq.Ft.
Coordination	1	200 Sq.Ft.	200 Sq.Ft.
Circulation	---	7,000 Sq.Ft. to 8,000 Sq.Ft.	<u>8,000 Sq.Ft.</u>
			18,200 Sq.Ft.

Functional Consideration - Relationship to overall orientation point important

- Near entry of users

- Promotion of commerce in area

Source - Client preference

CIVIC EXHIBITS

Display Area	---	8,000 Sq.Ft. to 9,000 Sq.Ft.	9,000 Sq.Ft.
Circulation	---	4,000 Sq.Ft. to 5,000 Sq.Ft.	5,000 Sq.Ft.
Coordination	1	200 Sq.Ft.	<u>200 Sq.Ft.</u>
			14,200 Sq.Ft.

Functional Consideration - Should be easily accessible by large numbers of people

- Highly visible

Source - Client preference

EXHIBITION (Continued)

AGRICULTURAL EXHIBITS

Display Area	---	10,000 Sq.Ft.	10,000 Sq.Ft.
Circulation	---	5,000 Sq.Ft.	5,000 Sq.Ft.
Coordination .	1	200 Sq.Ft.	<u>200 Sq.Ft.</u>
			15,200 Sq.Ft.

Functional Considerations - Adequate vehicular access

- Relates both to home arts and livestock exhibition

GENERAL EXHIBITS

Fine Arts Display	---	6,500 Sq.Ft.	6,500 Sq.Ft.
Home Arts Display	---	3,000 Sq.Ft.	3,000 Sq.Ft.
Horticulture	---	500 Sq.Ft.	500 Sq.Ft.
Antiques/Hobbies	---	3,000 Sq.Ft.	<u>3,000 Sq.Ft.</u>
			13,000 Sq.Ft.

Functional Considerations - Related to agricultural exhibits

- Limited user activity in p.m.

Source - Client preference

LIVESTOCK EXHIBITION

SPACE	QTY.	UNIT AREA	TOTAL AREA
-------	------	-----------	------------

CATTLE EXHIBITS

Individual cow	800	35 Sq.Ft.	28,000 Sq.Ft.
Circulation	---	14,000 Sq.Ft.	14,000 Sq.Ft.
Show Area	1	60 Ft. x 100 Ft.	6,000 Sq.Ft.

LIVESTOCK EXHIBITION (Continued)

Coordination	1	300 Sq.Ft.	300 Sq.Ft.
Seating/People	650	10 Sq.Ft.	<u>6,500 Sq.Ft.</u>
			54,800 Sq.Ft.

Functional Considerations - Located near arrival point
- Adjacent to rodeo arena
- Related to agricultural exhibit
- Related to poultry exhibit, rabbit exhibit and children's exhibit

Source - Client preference - Case studies
- Graphic standards - Whitaker

POULTRY EXHIBITS

Individual Birds	150	1.5 Sq.Ft.	225 Sq.Ft.
Individual Rabbits	100	1.5 Sq.Ft.	150 Sq.Ft.
Circulation	---	2,000 Sq.Ft.	2,000 Sq.Ft.
Coordination	1	300 Sq.Ft.	<u>300 Sq.Ft.</u>
			2,675 Sq.Ft.

Functional Considerations - Related to other livestock
- Strong relation to children's exhibition

Source - Client preference
- Case studies

CHILDREN'S EXHIBITS

Children's Exhibits	---	3,000 Sq.Ft.	3,000 Sq.Ft.
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Functional Considerations - Scale important to children
- Assortment of different animals

LIVESTOCK EXHIBITIONS (Continued)

Source - Client preference

- Case studies

LIVESTOCK PREPARATION AREA

Wash Rack	6	100 Sq.Ft.	600 Sq.Ft.
Grooming Area	2	1,000 Sq.Ft.	<u>2,000 Sq.Ft.</u>
			2,600 Sq.Ft.

Source - Client preference

- Case studies

- Whitaker

CONTESTS AREA

<u>SPACE</u>	<u>QTY.</u>	<u>UNIT AREA</u>	<u>TOTAL AREA</u>
Twirling-Team	1	1,200 Sq.Ft.	1,200 Sq.Ft.
Observation	300	10 Sq.Ft.	3,000 Sq.Ft.
Judging	6	20 Sq.Ft.	<u>120 Sq.Ft.</u>
			4,320 Sq.Ft.

Functional Considerations - Walls not needed

- Relationship to practice area

Source - Client preference

- Case studies

RODEO ARENA

<u>SPACE</u>	<u>QTY.</u>	<u>UNIT AREA</u>	<u>TOTAL AREA</u>
Arena Floor	1	130 Ft. x 240 Ft.	31,200 Sq.Ft.

RODEO ARENA (Continued)

Spectators	5,000	10 Sq.Ft.	50,000 Sq.Ft.
Restrooms	4	200 Sq.Ft.	800 Sq.Ft.
Concessions	2	450 Sq.Ft.	900 Sq.Ft.
Announcer's Booth	1	450 Sq.Ft.	450 Sq.Ft.
Holding Pens	6 to 10	400 Sq.Ft. to 600 Sq.Ft.	8,000 Sq.Ft.
Storage Area	---	---	6,000 Sq.Ft.
Participant's Preparation Area	2	400 Sq.Ft.	800 Sq.Ft.
			98,150 Sq.Ft.
			X .15 (GR to NT)
			14,722 Sq.Ft.
			+98,150 Sq.Ft.
			112,872 Sq.Ft.

Functional Considerations - Easy access by large numbers of people

- Located near stock barns

Source - Client preference

- Case studies

STOCK BARNs

Stalls	120	60 Sq.Ft.	7,200 Sq.Ft.
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Source - Case studies

- Manufacturer's data

MIDWAY

SPACE	QTY.	UNIT AREA	TOTAL AREA
-------	------	-----------	------------

Midway

Games	65 to 70	200 Sq.Ft. to 600 Sq.Ft.	35,000 Sq.Ft. or 1 Acre
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MIDWAY (Continued)

Rides	---	---	352,000 Sq.Ft. or 8 Acres
Recreational Vehicles	85	600 Sq.Ft.	51,000 Sq.Ft. or 1.1 Acres
Circulation	---	---	396,000 Sq.Ft. <u>or 9 Acres</u>
			834,000 Sq.Ft. or 19.1 Acres

Source - Case studies
 - Client preference

MAJOR CONCESSIONS

SPACE	QTY.	UNIT AREA	TOTAL AREA
Kitchens	1	300 Sq.Ft.	300 Sq.Ft.
Eating Area	---	700 Sq.Ft.	700 Sq.Ft.
Bar-Serving	1	70 Sq.Ft.	<u>70 Sq.Ft.</u>
			1,070 Sq.Ft.
TOTAL	8	1,070 Sq.Ft.	8,560 Sq.Ft.

Functional Considerations - Quick access
 - Separated

Source - Client preference
 - Case studies

OPERATIONS CONTROL

SPACE	QTY.	UNIT AREA	TOTAL AREA
MAINTENANCE			
Garage	1	3,200 Sq.Ft.	3,200 Sq.Ft.

OPERATIONS CONTROL (Continued)

Tool Room	1	350 Sq.Ft.	350 Sq.Ft.
Supply Room	1	2,000 Sq.Ft.	2,000 Sq.Ft.
Storage	---	4,000 Sq.Ft.	<u>4,000 Sq.Ft.</u>
			9,550 Sq.Ft.

Functional Considerations - Easy access to and from all points on grounds

- Related strongly with office

Source - Client preference

OFFICE

Reception	1	175 Sq.Ft.	175 Sq.Ft.
Office	2	120 Sq.Ft.	240 Sq.Ft.
Office	2	200 Sq.Ft.	400 Sq.Ft.
Conference	1	1,300 Sq.Ft.	1,300 Sq.Ft.
Restroom	2	120 Sq.Ft.	240 Sq.Ft.
Breakroom	1	200 Sq.Ft.	<u>200 Sq.Ft.</u>

2,555 Sq.Ft.
X .15 (GR to NT)

383 Sq.Ft.
+2,555 Sq.Ft.

2,938 Sq.Ft.

Functional Considerations - Related to staff parking

- Access by public throughout the year

Source - Client preference

FAIR COORDINATION OFFICE

Office	1	400 Sq.Ft.	400 Sq.Ft.
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RESTROOMS (Continued)

	X	148 Sq.Ft.	
		<u>.25</u>	(GR to NT)
		200 Sq.Ft.	
Restrooms	3 Pairs	200 Sq.Ft.	1,200 Sq.Ft.

* Only one pair with showers.

FIRE AND AMBULANCE STATION

SPACE	QTY.	UNIT AREA	TOTAL AREA
Toilet	1	200 Sq.Ft.	200 Sq.Ft.
Garage	1	1,400 Sq.Ft.	1,400 Sq.Ft.
Lounge	1	300 Sq.Ft.	<u>300 Sq.Ft.</u>
			1,900 Sq.Ft.

Source - Client preference
 - Graphic standards

TOTALS

SPACE	QTY.	UNIT AREA	TOTAL AREA
-------	------	-----------	------------

Total building square footage of interior spaces -

273,115 Sq.Ft.
 or 6.16 Acres

TOTAL PARKING

User	5,000 Spaces	---	1,462,500 Sq.Ft. or 33 Acres
Exhibitor	300 Spaces	---	22,750 Sq.Ft. or 1.1 Acres
Staff	75 Spaces	---	46,800 Sq.Ft. or .5 Acres

TOTALS (Continued)

Livestock	500 Spaces	---	290,500 Sq.Ft. <u>or 6.5 Acres</u>
Total			1,822,550 Sq.Ft. or 41.1 Acres
TOTAL EXTERIOR SITE DEVELOPMENT			
Midway	---	---	834,600 Sq.Ft. or 19.1 Acres
Amphitheater	---	---	10,750 Sq.Ft. <u>or .25 Acres</u>
Total			845,350 Sq.Ft. or 19.35 Acres
GRAND TOTAL			2,940,415 Sq.Ft. or 66.61 Acres
			X <u>.20</u> (GR to NT)
			13.32 Acres
			+ <u>66.61 Acres</u>
			79.9 Acres

I have selected the gross to net ratio of twenty percent due to the large number of people that will be moved from area to area.

FACILITY NO.: 101 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 BOX OFFICE
OCCUPANTS: 4 to 6 FLOOR AREA: 600 Sq. Ft.

FUNCTION: To sell and take tickets as users come through.
Also gives the user the first sense of orientation to the grounds.

REQUIREMENTS

DIMENSION: The dimensions of this space must fit well with the ticket seller, taker, and their equipment such as cash drawers and turnstiles.

LIGHTING: Fifty footcandles must be provided at all cash transaction levels and thirty footcandles of moisture lighting at turnstiles/exterior.

ACOUSTICAL: Voices must be heard from seller to user. Fair noise must be available while toning down traffic noise.

OTHER: Floor must stand up to heavy traffic access to ticket seller restricted by average user. Provisions for lines of people.

FURNISHINGS: Eight turnstiles, two ticket windows, two ticket counters with provisions for cash drawer and storage.

FACILITY NO.: 201 DESCRIPTIVE TITLE:
NO. OF UNITS: 80 COMMERCIAL DISPLAY BOOTHS
OCCUPANTS: 2 to 3 FLOOR AREA: 120 Sq. Ft.

FUNCTION: To provide space for commercial establishments to display their goods and services. Users will tour these booths and stop to talk with representatives of the companies.

REQUIREMENTS

DIMENSION: 10 ft. x 12 ft. 10 feet should face the stream of travel. Twelve feet deep to allow for displays, information tables and area for representative(s).

LIGHTING: Overall building should have low level non-glare lighting with systems to enable specific task lighting.

ACOUSTICAL: Noise should be allowed to flow through the space but noise from outside should be limited.

OTHER: Booths should be modular - able to change from year to year. Efforts should be made to encourage quick, moderate and detailed observation by user.

FURNISHINGS: Modular dividing components. Each exhibitor will supply his own equipment necessary. Access by pick-up truck should be provided.

FACILITY NO.: 202 DESCRIPTIVE TITLE:
NO. OF UNITS: 2 RESTROOMS
OCCUPANTS: VARIES FLOOR AREA: 200 Sq. Ft.

FUNCTION: To take care of the natural biological functions
of the user and exhibitor.

REQUIREMENTS

DIMENSION: 10 ft. x 10 ft. should be appropriate.
LIGHTING: Thirty footcandles even lighting
ACOUSTICAL: Soundproofing is required both within and from
without.
OTHER: State guidelines concerning access for the
handicapped must be provided. Entry and exit
must be secluded - not in open view.
FURNISHINGS: Two toilets
One lavatory

FACILITY NO.: 204 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 COMMERCIAL COORDINATION
OCCUPANTS: 2 to 3 FLOOR AREA: 200 Sq. Ft.

FUNCTION: To orientate visitor or user to exhibition area -
to answer questions and complaints - also, super-
vises the set-up and operation of each exhibitor
and the mechanics of the exhibit.

REQUIREMENTS

DIMENSION: Should fit into the modular system as a beginning
or an ending point. Visual access to most circu-
lation space needed.

LIGHTING: Thirty-five footcandles low level even, non-glar-
ing light - task lighting should be available.

ACOUSTICAL: Should have a public address system and should
have communication by phone - able to hear noise
in the building.

OTHER: User access very important - counter space to
handle inquiries.

FURNISHINGS: Counter
One desk/chair
Two occasional chairs
Information table
Two stools

FACILITY NO.: 302 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 CIVIC COORDINATION
OCCUPANTS: 2 to 3 FLOOR AREA: 200 Sq. Ft.

FUNCTION: To orientate and answer complaints in this building. Should house personnel in charge of exhibit set-up and activity during the fair.

REQUIREMENTS

DIMENSION: Located in or near high traffic area. Easy to find from any entry. Also easy to control events that happen throughout building.

LIGHTING: Fifty footcandles at desk or counter table. Either flooded or task lighting.

ACOUSTICAL: Communication with office by telephone required. Public address system required.

OTHER: User access should be highly visible.

FURNISHINGS: Counter space for orientation and information required.
One desk/chair
Four stools.

FACILITY NO.: 401 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 AGRICULTURAL DISPLAY AREA
OCCUPANTS: VARIES FLOOR AREA: 10,000 Sq. Ft.

FUNCTION: To display works and projects of FFA and Four-H clubs such as farm implements and new developments in agriculture. Hay displays occur here. Agriculture clubs make displays.

REQUIREMENTS

DIMENSION: Modular space of 12 ft. x 10 ft. for agriculture displays required. Circulation should determine location of these as well as open display for large projects.

LIGHTING: Thirty-five footcandles general lighting. Task or spot lighting required for agricultural displays.

ACOUSTICAL: Background of fair should be evident but not overbearing. Conversation should be possible without loss of privacy.

OTHER: Two 16 ft. x 10 ft. overhead doors required for vehiclular access. Floor material should be easy to clean and able to withstand vehicles and projects.

FURNISHINGS: None other than modular display areas for club presentations. Natural light must be provided.

FACILITY NO.: 402 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 AGRICULTURE COORDINATION
OCCUPANTS: 5 to 6 FLOOR AREA: 200 Sq. Ft.

FUNCTION: To provide for orientation and answer complaints from users. Also to control set-up of exhibit and exhibit activities throughout the fair.

REQUIREMENTS

DIMENSION: Should fit into the modular display and be near a major exit - both user and vehicular access points.

LIGHTING: Fifty footcandles overall. Task lighting provided for orientation and information desk.

ACOUSTICAL: Public address system is required and communication by telephone to office is required.

OTHER: User access should be highly visible.

FURNISHINGS: Information counter
Three stools
One desk/chair
One file cabinet

FACILITY NO.: 501 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 FINE ARTS DISPLAY
OCCUPANTS: VARIES FLOOR AREA: 6,500 Sq. Ft.

FUNCTION: To provide exhibition areas for works of art including painting, photographs, and sculptures. Users must be able to pass through this facility at their own individual rate.

REQUIREMENTS

DIMENSION: Should provide for modular display system for wall hung art and sitting exhibits - must be flexible and not containing.

LIGHTING: Seventy footcandles should be provided on art work by task or spot lighting-walkways should be less.

ACOUSTICAL: Should be quiet. Conversation should be able to be carried on without loss of privacy.

OTHER: User should not be forced to view all exhibits. Flexibility from year to year is very important.

FURNISHINGS: Modular display system.

FACILITY NO.: 502 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 HOME ARTS DISPLAY
OCCUPANTS: VARIES FLOOR AREA: 3,000 Sq. Ft.

FUNCTION: To provide exhibition facility for home arts such as woven goods and food stuffs. User should be able to view these items easily but not handle them.

REQUIREMENTS

DIMENSION: Space should be able to change with the amounts of displays that change from year to year.

LIGHTING: Fifty footcandles even level light on all displays - lower level on circulation spaces.

ACOUSTICAL: Little background noise should be heard.

OTHER: Graphics should be provided. Natural light is required.

FURNISHINGS: Modular display systems. Food stuffs must be protected from insects.

FACILITY NO.: 503 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 HORTICULTURE DISPLAY
OCCUPANTS: VARIES FLOOR AREA: 500 Sq. Ft.

FUNCTION: To provide exhibition space for plants grown by exhibitors. User must be allowed to visit this space in an unconformed manner.

REQUIREMENTS

DIMENSION: Size of plants regulate display unit size and display size will determine space design for this exhibition.

LIGHTING: 35 to 50 footcandles should be provided. Natural light should also be provided.

ACOUSTICAL: Low noise level is required.

OTHER: Waterproof surface and display units should be provided.

FURNISHINGS: Display units for plants.

FACILITY NO.: 504 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 ANTIQUES/HOBBIES
OCCUPANTS: VARIES FLOOR AREA: 3,000 Sq. Ft.

FUNCTION: Serves as an exhibition space for antiques and hobbies and allows for observation of these exhibits by fair goers.

REQUIREMENTS

DIMENSION: Design of exhibition space and circulation space will determine the shape of this floor plan. Different types of viewing must be provided for.

LIGHTING: Fifty footcandles is required. Natural lighting is also required.

ACOUSTICAL: Noise from outside sources should be limited in this space. A comfortable atmosphere for conversation must be provided.

OTHER: Some antiques are large needing open space, while others are small requiring displays, booths or cabinets.

FURNISHINGS: None

FACILITY NO.: 601 DESCRIPTIVE TITLE:
NO. OF UNITS: 800 CATTLE EXHIBITS
OCCUPANTS: 1 Cow FLOOR AREA: 35 Sq. Ft.

FUNCTION: Serves as the space where the junior and senior cattle are displayed and cared for. Fair goers will also visit this exhibit in very large numbers.

DIMENSION: Cattle space will be the big determinant in the design of this space. Exhibitor access is very important as well as cattle movement in and out.

LIGHTING: Forty-five footcandles is required in this space. Natural light should be provided.

ACOUSTICAL: Reduction of outside noise level in this space is required but total silence is not requested.

OTHER: Vehicular access to this space is very important.

FURNISHINGS: None - exhibitors bring their own equipment.

FACILITY NO.: 602 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 SHOW RING
OCCUPANTS: VARIES FLOOR AREA: 6,000 Sq. Ft.

FUNCTION: This is the area where cattle are brought according to class to be shown by their raiser and to be judged. They are also observed by other people.

REQUIREMENTS

DIMENSION: 60 ft. x 100 ft. is required. A dirt floor is also required. This should be an open space 20 feet to 25 feet high without obstruction.

LIGHTING: Fifty footcandles is required. Task lighting is required on judging desk. Natural light should also be provided.

ACOUSTICAL: Sound must be clearly heard by judge and exhibitor. Exterior noise should be limited.

OTHER: Public address system is required. Access to and from holding stalls and pens should be separated from pedestrian traffic.

FURNISHINGS: Judge's desk - no other.

FACILITY NO.: 603 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 LIVESTOCK COORDINATION
OCCUPANTS: 5 to 6 FLOOR DISPLAY: 300 Sq. Ft.

FUNCTION: To supervise cattle display and shows. Light office work is completed here. Storage of some equipment is required. Questions are answered and fielded here by staff.

REQUIREMENTS

DIMENSION: Location of storage area, desk, and counter space will determine the floor plan of this room. Access to this area is required by all cattle exhibitors.

LIGHTING: Fifty footcandles is required. Task lighting should be provided on desk and counter area.

ACOUSTICAL: Noise penetration limited.

OTHER:

FURNISHINGS: One desk/chair
Storage cabinets
Counter space

FACILITY NO.: 604 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 SEATING - SHOWING AREA
OCCUPANTS: 600 FLOOR AREA: 6,500 Sq. Ft.

FUNCTION: Allows spectators to view and discuss cattle show. Gives them a good view.

REQUIREMENTS

DIMENSION: Seating should provide sight lines from every position. This will create the need for a scoped seating. Seating should be divided on two sides of the ring.

LIGHTING: Natural light is required. A total of thirty-five footcandles is required.

ACOUSTICAL: Sound from the ring must be transmitted to the seating area and vice versa.

OTHER:

FURNISHINGS: Seating for 600 people.

FACILITY NO.: 701 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 POULTRY EXHIBITS
OCCUPANTS: VARIES FLOOR AREA: 225 Sq. Ft.

FUNCTION: Serves as area for poultry exhibits and also rabbit exhibits. Fairgoers also walk through and view these exhibits.

REQUIREMENTS

DIMENSION: Relation of circulation space and poultry cages will determine design of this space.

LIGHTING: Fifty footcandles are required. Natural light is required.

ACOUSTICAL: Noise from outside sources should be greatly reduced due to the nature of poultry and rabbits.

OTHER:

FURNISHINGS: Poultry and rabbit cages.

FACILITY NO.: 702 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 RABBIT EXHIBITION
OCCUPANTS: VARIES FLOOR AREA: 200 Sq. Ft.
FUNCTION: Same as those for poultry exhibition.

REQUIREMENTS

DIMENSION:

LIGHTING:

ACOUSTICAL:

OTHER:

FURNISHINGS:

FACILITY NO.: 703 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 POULTRY/RABBIT COORDINATION
OCCUPANTS: 2 to 3 FLOOR AREA: 300 Sq. Ft.

FUNCTION: To orientate visitor and exhibitor to exhibition area. To answer questions and complaints. Also supervises the set-up and operation of each exhibit.

REQUIREMENTS

DIMENSION: Should fit in well with the modular system of the display area. Visitor access to this space is very important.

LIGHTING: Forty footcandles low level even, non-glare light. Task lighting should be available.

ACOUSTICAL: Should have a public address system and telephone communication.

OTHER:

FURNISHINGS: Counter space
One desk/chair
Two stools
Information table

FACILITY NO.: 801 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 CHILDREN'S EXHIBITS
OCCUPANTS: VARIES FLOOR AREA: 3,000 Sq. Ft.

FUNCTION: An FFA club sponsors a children's animal exhibit each year. This includes cages with small animals and larger animals in pens. Children with parents walk through this exhibit.

REQUIREMENTS

DIMENSION: As with all exhibition spaces, this space should be organized but not too rigid. Scale will play an important part in the design of this space.

LIGHTING: Natural light is required. Fifty footcandles should be provided. Task lighting should be provided.

ACOUSTICAL: Noise from the space must penetrate to the outside.

OTHER:

FURNISHINGS: None - all provided by the FFA club.

FACILITY NO.: 901 DESCRIPTIVE TITLE:
NO. OF UNITS: 6 WASH RACK
OCCUPANTS: 1 FLOOR AREA: 100 Sq. Ft.

FUNCTION: This is the area where cattle are washed down during exhibition and prior to showing. Exhibitors bring their animals through one at a time for a ten to fifteen minute wash.

REQUIREMENTS

DIMENSION: 10 ft. x 10 ft. is required for cow and washer.
LIGHTING: Exterior lighting is required.
ACOUSTICAL: No special consideration.
OTHER: This should be an open area. Water drains are required.
FURNISHINGS: None

FACILITY NO.: 902 DESCRIPTIVE TITLE:
NO. OF UNITS: 2 GROOMING AREA
OCCUPANTS: 4 FLOOR AREA: 1,000 Sq. Ft.

FUNCTION: This space allows for an area where exhibitors can care for their animals before and during the show.

REQUIREMENTS

DIMENSION: It should be divided into individual spaces. This will determine the floor design of this building.

LIGHTING: Sixty footcandles is required. Natural light is required.

ACOUSTICAL: Should be kept quiet - not entirely but it should be kept comfortable to both exhibitor and cow.

OTHER: Sand bedding is required.

FURNISHINGS: None

FACILITY NO.: 1001 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 TWIRLING AREA
OCCUPANTS: VARIES FLOOR AREA: 1,200 Sq. Ft.

FUNCTION: This is the area where twirling competitions will be held. Teams will compete as well as individuals. Other group activities may take place here also.

REQUIREMENTS

DIMENSION: An open, hard surface is required. It should be 30 ft. x 40 ft. due to the nature of team events.

LIGHTING: Natural lighting is required. Fifty footcandles is also required.

ACOUSTICAL: No penetration of outside noise into this space. Some penetration is required to the exterior.

OTHER:

FURNISHINGS: None.

FACILITY NO.: 1002 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 SEATING - TWIRLING AREA
OCCUPANTS: 300 FLOOR AREA: 3,000 Sq. Ft.

FUNCTION: To allow for observation of the twirling competition. Conversations are also held here.

REQUIREMENTS

DIMENSION: It should go along one side of the competition area opposite the judge's table.

LIGHTING: Thirty footcandles is required. Natural light is requested.

ACOUSTICAL: Sound should be transmitted from the competition area.

OTHER: Sight lines from every seat to all parts of the competition floor is required.

FURNISHINGS: Seating for 300 people.

FACILITY NO.: 1003

DESCRIPTIVE TITLE:

NO. OF UNITS: 1

JUDGING AREA

OCCUPANTS: 8

FLOOR AREA: 120 Sq. Ft.

FUNCTION: Allows space of judges of twirling competition to sit and judge the competition. Limited access should be available for users to this area.

REQUIREMENTS

DIMENSION: Should be linear along the side of the competition area. Sight lines to the floor area are required.

LIGHTING: Seventy footcandles is required. Natural light is required.

ACOUSTICAL: Sound must be transmitted from the competition area to the judging area but not vice versa.

OTHER:

FURNISHINGS: Four tables/Eight chairs
Storage shelves

FACILITY NO.: 1101 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 RODEO ARENA FLOOR
OCCUPANTS: NONE FLOOR AREA: 31,200 Sq. Ft.

FUNCTION: This is the space where rodeo events are held.
It is sometimes converted into seating during
other activities such as concerts.

REQUIREMENTS

DIMENSION: An oblong or rectangular space is required.
Placement of dogging and bucking chutes as well
as spectator seating will determine the shape
of this space.

LIGHTING: Seventy footcandles are required throughout the
rodeo arena floor.

ACOUSTICAL: Sound must be transmitted to and from arena floor.

OTHER: Hard surface is required. Eight feet of dirt
will be brought in for each rodeo and taken out
at the end of the rodeo.

FURNISHINGS: None - other than cattle handling equipment.

FACILITY NO.: 1102 DESCRIPTIVE TITLE:
NO. OF UNITS: None SPECTATOR SEATING
OCCUPANTS: 5,000 FLOOR AREA: 50,000 Sq. Ft.

FUNCTION: Allows seating area for spectators of rodeo events and other activities held during the year. Conversation between groups is also held in the seating area.

REQUIREMENTS

DIMENSION: Relation to the arena floor will determine the shape of the seating. Sight lines from every seat must go to every area of the floor.

LIGHTING: Thirty footcandles is required. Should be able to dim down to five footcandles.

ACOUSTICAL: Sound must be transmitted to and from the arena floor.

OTHER: Sloped seating is requested.

FURNISHINGS: Seating for 5,000 people.

FACILITY NO.: 1103 DESCRIPTIVE TITLE:
NO. OF UNITS: 4 RESTROOMS
OCCUPANTS: VARIES FLOOR AREA: 200 Sq. Ft.

FUNCTION: Same as those already listed

REQUIREMENTS

DIMENSION:

LIGHTING:

ACOUSTICAL:

OTHER:

FURNISHINGS:

FACILITY NO.: 1104 DESCRIPTIVE TITLE:
NO. OF UNITS: 2 CONCESSIONS
OCCUPANTS: 6 FLOOR AREA: 450 Sq. Ft.

FUNCTION: Serves as area for preparation and serving of food and drinks to spectators of rodeo and other arena activities.

REQUIREMENTS

DIMENSION: Maximum linear space should be available for serving counter. Kitchen equipment should be organized accordingly.

LIGHTING: Fifty footcandles low level even lighting. Task or spot lighting on counter and cash register.

ACOUSTICAL: Minimum amount of noise should be allowed to penetrate into this space. Communication between operators and buyer is important.

OTHER: Hard, easily cleaned floor.

FURNISHINGS: Counter
Storage shelves
Stove
Two work tables

FACILITY NO.: 1105 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 ANNOUNCER'S BOOTH
OCCUPANTS: 8 FLOOR AREA: 450 Sq. Ft.

FUNCTION: To allow rodeo announcer to observe all facets
of rodeo activities and relate these to the
spectators.

REQUIREMENTS

DIMENSION: Linear development facing arena will be most
efficient. Maximum counter space for announcer
and/or judges.

LIGHTING: Fifty footcandles required. Natural light also
required. Task lighting required on desk/
counter.

ACOUSTICAL: Public address system required. Able to hear
crowd noise and hear staff voices in chutes.

OTHER: Located over or near bucking chutes for easy
contact.

FURNISHINGS: Counter space - 20 feet
Eight chairs

FACILITY NO.: 1107 DESCRIPTIVE TITLE:
NO. OF UNITS: NONE STORAGE AREA
OCCUPANTS: NONE FLOOR AREA: 6,000 Sq. Ft.

FUNCTION: To store chairs to be used on the arena floor.
Also, to store rodeo equipment during non-use
periods.

REQUIREMENTS

DIMENSION: Open space will be the main requirement. Space
will be subdivided as needed.

LIGHTING: Thirty footcandles low level lighting is required.
Natural light is also requested.

ACOUSTICAL: No special considerations.

OTHER: Exhaust fans required.

FURNISHINGS: None.

FACILITY NO.: 1108

DESCRIPTIVE TITLE:

NO. OF UNITS: 2

PARTICIPANT'S PREPARATION

OCCUPANTS: 16 to 20

FLOOR AREA: 400 Sq. Ft.

FUNCTION: To allow participants in rodeo activities, concerts, and horse shows a space of preparation prior to engaging in their activity.

REQUIREMENTS

DIMENSION: Should be determined by location of furniture.

LIGHTING: Fifty footcandles even low level lighting required.

ACOUSTICAL: Should be a calm, quiet space.

OTHER:

FURNISHINGS: Three tables
Sixteen chairs
Two sofas

FACILITY NO.: 1301 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 CONCESSIONS KITCHEN
OCCUPANTS: 8 to 12 FLOOR AREA: 300 Sq. Ft.

FUNCTION: Serves as food preparation area for each individual concession. Cooking and serving of food is organized here.

REQUIREMENTS

DIMENSION: Location of equipment and work tables will determine design of floor plan. Also relation to serving bar is very important.

LIGHTING: Sixty footcandles is required. Natural lighting is required.

ACOUSTICAL: No special provisions.

OTHER: Floor must be easily cleaned.

FURNISHINGS: Four work tables
Two stoves
Two storage cabinets
Two refrigerated storage units

FACILITY NO.: 1302 DESCRIPTIVE TITLE:
NO. OF UNITS: NONE CONCESSIONS - EATING AREA
OCCUPANTS: 20 to 60 FLOOR AREA: 700 Sq. Ft.

FUNCTION: Serves as area for fair goers to eat their meal.
 Also serves as meeting and conversation space.

REQUIREMENTS

DIMENSION: Location of tables is the main factor in floor design of this space. Circulation space to and from serving bar is also important.

LIGHTING: Fifty footcandles of low level even light is required. Natural lighting is also required.

ACOUSTICAL: Noise should be allowed to flow in and out of this space freely. Conversation must be allowed.

OTHER: Floor must be easily cleaned.

FURNISHINGS: Twelve tables
 96 chairs

FACILITY NO.: 1303 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 CONCESSIONS - BAR SERVICE
OCCUPANTS: NONE FLOOR AREA: 70 Sq. Ft.

FUNCTION: Serves as a transition point between kitchen and eating area. Food is served and bought over this counter.

REQUIREMENTS

DIMENSION: 3 ft. x 30 ft. bar with space in front and in back of this bar for standing in line or waiting on customers.

LIGHTING: Sixty-five footcandles is required. Task lighting is required above cash register. Natural light is requested.

ACOUSTICAL: Communication between server and buyer must be conducted with little interference.

OTHER:

FURNISHINGS: Counter

FACILITY NO.: 1401 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 GARAGE/MAINTENANCE
OCCUPANTS: NONE FLOOR AREA: 3,200 Sq. Ft.

FUNCTION: To house tractors and vehicles owned by the Association. Work is also performed on the equipment in this space.

REQUIREMENTS

DIMENSION: Should be useful to storage of large vehicular equipment. Access of these vehicles into their position should greatly influence floor design.

LIGHTING: Thirty footcandles overall lighting should be provided. Task lighting will be required for maintenance and counter work.

ACOUSTICAL: Noise created in this space should be kept inside. Outside noise should not divert repairman's attention to his work.

OTHER: Two 16 ft x 10 ft overhead doors required. Oil drains must be provided. Floor must be able to support weights of vehicles.

FURNISHINGS: Counter space - 3 ft. x 20 ft.
Storage cabinets
Natural lighting is required.

FACILITY NO.: 1402

DESCRIPTIVE TITLE:

NO. OF UNITS: 1

MAINTENANCE - TOOL ROOM

OCCUPANTS: NONE

FLOOR AREA: 350 Sq. Ft.

FUNCTION: To store and organize maintenance tools - including grounds care equipment, machine tools, and office cleaning or janitor equipment.

REQUIREMENTS

DIMENSION: Linear access to tool racks should lead to floor plan design of this room. Adequate height for tools and racks should be 12 feet.

LIGHTING: Twenty-five to thirty footcandles should be provided. No task lighting must be provided. Lighting must be protected.

ACOUSTICAL: No special conditions should be provided.

OTHER: Floor materials must be easily cleaned - same with walls.

FURNISHINGS: Racks for machinery tools
Racks for grounds care equipment.

FACILITY NO.: 1403 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 MAINTENANCE - SUPPLY ROOM
OCCUPANTS: NONE FLOOR AREA: 2,000 Sq. Ft.

FUNCTION: To house supplies for office work and for grounds maintenance. Easy location, retrieval, and storage of supplies should be provided. Tables and chairs will be stored here also.

REQUIREMENTS

DIMENSION: Shelves and cabinets must be provided. Access to these will dictate design of this room. Open storage space for chairs and tables will be provided.

LIGHTING: Twenty-five to thirty footcandles required. Lighting must be protected. Natural light is required.

ACOUSTICAL: No special provisions.

OTHER: Ventilation of this room is required. Overhead doors with large enough openings for trucks and tractors must be provided.

FURNISHINGS: Storage cabinets
Storage shelves
Pallet storage racks.

FACILITY NO.: 1404 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 MAINTENANCE - STORAGE
OCCUPANTS: NONE FLOOR AREA: 4,000 Sq. Ft.

FUNCTION: Storage of tables and chairs will be in this space. Also, kitchen equipment from concessions will be brought here during the year.

REQUIREMENTS

DIMENSION: Space should be provided for vehicular access to all points in this structure. This will greatly influence floor design.

LIGHTING: Thirty-five to forty footcandles must be provided. Lighting must be protected. Natural light during the day is required.

ACOUSTICAL: No special provisions.

OTHER: Openings for vehicular access is required.

FURNISHINGS: None.

FACILITY NO.: 1501 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 OFFICE/RECEPTION AREA
OCCUPANTS: 1 to 10 FLOOR AREA: 175 Sq. Ft.

FUNCTION: To serve as a waiting and reception area for visitors to the Fair Association office. Informal conversations are carried on in this area.

REQUIREMENTS

DIMENSION: Relation to other offices. Receptionist and front door will determine shape of this office space.

LIGHTING: Fifty to sixty footcandles should be provided. Task lighting should be supplies to receptionist's desk.

ACOUSTICAL: Noise from outside should not penetrate. Office conversation and noise should not penetrate.

OTHER: Orientation to the office is included in this space. Carpeting is required.

FURNISHINGS: Eight chairs
Two tables
One Desk/chair
One typewriter stand
One file cabinet

FACILITY NO.: 1503 DESCRIPTIVE TITLE:
NO. OF UNITS: 2 OFFICE - ADMINISTRATOR
OCCUPANTS: 1 FLOOR AREA: 240 Sq. Ft.

FUNCTION: To serve as the work room and meeting room for the administrator. It will also serve to store and organize all of the administrator's goods.

REQUIREMENTS

DIMENSION: 14 ft. x 18 ft. is sufficient for this space. This allows for sufficient flexibility in floor plan design and furniture location.

LIGHTING: Thirty-five footcandles will be sufficient. Recessed lighting has been requested. Task lighting will also be required.

ACOUSTICAL: Privacy should be possible. Telephone communication with secretary should be provided.

OTHER: Views to the exterior are requested. Carpeting is required.

FURNISHINGS: One desk/chair
Two occasional chairs
One book shelf
Two file cabinets

FACILITY NO.: 1503 DESCRIPTIVE TITLE:
NO. OF UNITS: 2 OFFICE - OFFICES
OCCUPANTS: 1 FLOOR AREA: 200 Sq. Ft.

FUNCTION: These spaces allow for office work by officers and/or secretaries. Organization and meetings are also conducted in this space.

REQUIREMENTS

DIMENSION: 12 ft. x 18 ft. should provide sufficient flexibility in office furniture arrangement.

LIGHTING: Thirty-five footcandles is required. Task lighting is also required on desk.

ACOUSTICAL: Sound privacy is requested. Telephone communication is required.

OTHER: Natural lighting is requested. Carpet is required.

FURNISHINGS: One desk/chair
 One chair
 Two file cabinets

FACILITY NO.: 1504 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 OFFICE - CONFERENCE
OCCUPANTS: 10 to 36 FLOOR AREA: 1,300 Sq. Ft.

FUNCTION: To house Fair Association meetings and other informal and formal meetings. Office personnel sometimes use this space for work which requires large areas of table space.

REQUIREMENTS

DIMENSION: The length and width of the conference table will dictate the shape of this space. It will be a large space so a high ceiling is required.

LIGHTING: Lighting should be provided directly on the table surface. Low level lighting should be elsewhere.

ACOUSTICAL: Every person should be able to hear each other. No sound should leave or enter this space when desired.

OTHER: Natural light is required. Views to exterior are required.

FURNISHINGS: 32 seat conference table
36 chairs
Two tables

FACILITY NO.: 1504 DESCRIPTIVE TITLE:
NO. OF UNITS: 2 OFFICE - RESTROOMS
OCCUPANTS: VARIES FLOOR AREA: 120 Sq. Ft.
FUNCTION: Same as listed earlier.

REQUIREMENTS

DIMENSION:

LIGHTING:

ACOUSTICAL:

OTHER:

FURNISHINGS:

FACILITY NO.: 1506 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 OFFICE - BREAK ROOM
OCCUPANTS: 2 to 6 FLOOR AREA: 200 Sq. Ft.

FUNCTION: Serves as a resting and informal meeting space for office workers. Also contains food service machinery.

REQUIREMENTS

DIMENSION: Location of furnishings and cabinets will determine floor plan design.

LIGHTING: Fifty footcandles required.

ACOUSTICAL: This should be a quiet resting place.

OTHER:

FURNISHINGS: Two chairs
One table
One sofa
Cabinets
Sink

FACILITY NO.: 1601 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 OFFICE - FAIR COORDINATION
OCCUPANTS: 2 to 10 FLOOR AREA: 400 Sq. Ft.

FUNCTION: To manage the fair during its week of existence.
To answer questions and complaints by users and exhibitors during all hours of the week. Office work is also performed here.

REQUIREMENTS

DIMENSION: Counter and window space is required. This will determine shape and scale for this structure.

LIGHTING: Seventy-five footcandles is required. Exterior lighting should illuminate question and complaint counters.

ACOUSTICAL: Public address system is required. People must be able to converse through the complaint window.

OTHER:

FURNISHINGS: Two work tables
Counter space
Public address system

FACILITY NO.: 1700 DESCRIPTIVE TITLE:
NO. OF UNITS: 6 RESTROOMS - GENERAL
OCCUPANTS: VARIES FLOOR AREA: 200 Sq. Ft.

FUNCTION: To serve the users, midway, personnel and
 exhibitors of the grounds.

REQUIREMENTS (Same as listed earlier)

DIMENSION:

LIGHTING:

ACOUSTICAL:

OTHER:

FURNISHINGS: Two showers required in four of the six rest-
rooms.

FACILITY NO.: 1801 DESCRIPTIVE TITLE:
NO. OF UNITS: 1 GARAGE - FIRE AND AMBULANCE
OCCUPANTS: NONE FLOOR AREA: 1,400 Sq. Ft.

FUNCTION: To house the firetruck and ambulance on duty during the fair and rodeo. The personnel are also stationed here.

REQUIREMENTS

DIMENSION: The shape of the firetruck and ambulance and their need for quick departure dictate design of this structure.

LIGHTING. Thirty-five footcandles is required. Lighting must be protected.

ACOUSTICAL: Noise must not penetrate from this space into the lounge. A public address system is required.

OTHER: Natural lighting is required. Doors for vehicular access. Natural ventilation is required.

FURNISHINGS: Racks for equipment.
Floor drains.

FACILITY NO.: 1803

DESCRIPTIVE TITLE:

NO. OF UNITS: 1

F AND A RESTROOM

OCCUPANTS: VARIES

FLOOR AREA: 300 Sq. Ft.

FUNCTION: Same as listed earlier.

REQUIREMENTS

DIMENSION:

LIGHTING:

ACOUSTICAL:

OTHER:

FURNISHINGS:

ENCLOSURE

Building envelope criteria includes floors, walls and partitions, ceilings, doors and windows, and volumetric requirements. The method of construction of each building type mentioned in the space summary and cost analysis will be determined by technical and cost limitations as well as case study influences. As mentioned in the detailed space list, some floors have unusual loads and some walls and floors must be easily cleaned. The atmosphere in exhibit buildings should be conducive to conversation and a feeling of gaiety. The structures should have an open air and sunlit feeling. It should be interesting to visit both the exhibit and the building in which it is housed.

The scale of the interior space, as well as the exterior space between buildings, should not be overbearing. It should have a mixture of both important spaces and small, private or semi-public spaces. Door height, ceiling height, window placement and size, and total volume will greatly influence the "scale" of the fair grounds.

During examination of the case studies, it was discovered that most fair grounds are created over a period of many years. Many problems resulted from this but one good thing came from it also. It is the fact that fair managers had a

great amount of flexibility in how they built additions or converted existing structures into new uses. In our design, all efforts should be made to achieve as much flexibility in the buildings and grounds themselves due to the changing nature of fairs and exhibitions.

STRUCTURAL

The envelope required in some buildings will in some cases require extra ordinary structural systems. The rodeo arena and some large open exhibition buildings are ones in which special structures must be used to span and support the required lengths and loads. The type of structure is not restricted to any particular system but its selection and implementation will be greatly affected by cost considerations. This along with case studies should produce the necessary criteria for selection of a structural system or combination of different types of systems.

MECHANICAL

Due to the fact that the fair is held during September, buildings such as exhibition buildings will not require extensive heating and cooling equipment. But the office buildings and the rodeo arena must be designed for year round use. In the office building, an air gradient differential of not more than five degrees is to be kept at a height of sixty

inches above the floor.

Due to almost continuous opening of doors, most buildings will need continuous air supply - either treated or fresh. Some buildings will require exhaust fans. Design temperatures will be those set by the Department of Energy.

ELECTRICAL

Exhibitions should be adequately lighted for easy viewing. This may differ with each exhibit. Rodeo arena, show ring, and contestants areas require special provisions such as those listed in the detailed space list.

Exit lighting pointing out the nearest exit should be in easy view from any point in any structure. Emergency lighting should be provided at all exits.

Exterior lighting should be adequately designed for safety of fair goers in all areas of normal use on the fair grounds. Exterior perimeter lighting should be provided throughout the year to discourage vandalism or theft.

ACOUSTICS

Acoustical criteria varies according to building use. It is recommended that most sounds be allowed to flow into and out of most spaces with little interference. This allows for a background sound and also creates a pull for the fair goer to attend another event.

There are some spaces which need protection from outside sounds. These include the contestants' area, the stock judging area, the fire and ambulance station, and the year round operations control and the restrooms. Although noise pollution cannot be allowed, sounds from the rodeo arena, stock judging area and contestants' area may be allowed to penetrate out from their spaces.

COMMUNICATION

Communication by phone is required in all buildings listed in the detailed space list. A public address system is require for the entire facility as well as individual public address systems for each building listed in the detailed space list.

Fire alarm systems are required in all structures. The control of these systems must be easily accessible by the Fair Coordination Office. These systems must have back-up emergency power systems in case of electrical shorts resulting from fire or water.

TRANSPORTATION

Human transportation systems should be designed to allow use by both groups and individuals. The amount of traffic on these systems, along with the development of exhibitions or activities along the perimeter, will determine the width and design.

It is essential that vehicle transportation systems be kept separate from human transportation systems. Exceptions can be made for fire and ambulance access to different parts of the grounds. Livestock exhibition transport must be separated physically from the observer but in plain sight. It is also important that stock trailers and rodeo stock transportation systems be kept separate from the fair goer.

CODE CONSIDERATIONS

According to Code of Ordinances, City of Texarkana,
Section 21-2, Exhibitions and Carnivals:

- (3) (d) All such circuses, carnivals, fairs and other amusement type shows shall not be located less than 300 feet from developed residential districts.
- (e) Vehicles associated with any circus, carnival, fair or other amusement show not in operation or use during any such show shall be parked within 150 feet of developed residential districts.
- (f) Droppings from animals used in any such shows shall be removed daily from the grounds. In the event that animals are kept within the city limits at night, they shall be kept not less than 500 feet from any developed residential or commercial district.
- (g) All tents, awnings and similar canvas material must be flameproofed in accordance with the requirements of the fire prevention and building codes. Fire lanes for emergency equipment must be provided as may be required by the fire prevention and building codes. The site for such show must be prepared in such a manner as not to be a fire hazard and must be approved by the fire marshall.
- (h) Where food service is provided, said food service operation shall be provided in a self-contained unit or one which is approved by the health inspector.

(3) (j) All such exhibitions and carnivals shall be operated in accordance with all city codes and ordinances.

These passages of the Code of Ordinances will greatly influence location, parking, and design of spaces of different activities and buildings.

COST ANALYSIS

BUILDINGS AND STRUCTURES

	<u>SPACE OR BUILDING</u>	<u>SQUARE FEET</u>	<u>UNIT PRICE</u>	<u>COST</u>
<u>ADMISSION</u>	Box Office	600 Sq.Ft.	\$28.70	\$ 17,220.0
	Guard Houses	300 Sq.Ft.	18.00	5,400
<u>EXHIBITION</u>	Commercial	18,200 Sq.Ft.	15.20	276,640
	Civic	14,200 Sq.Ft.	15.20	215,840
	Agricultural	15,200 Sq.Ft.	15.20	231,040
	General	13,000 Sq.Ft.	15.20	197,600
<u>LIVESTOCK</u>	Cattle	42,800 Sq.Ft.	15.20	650,560
	Arena	12,000 Sq.Ft.	26.00	312,000
	Poultry	2,675 Sq.Ft.	15.20	40,660
	Children's	3,000 Sq.Ft.	15.20	45,600
	Preparation	2,000 Sq.Ft.	15.20	30,400
	Wash Rack	600 Sq.Ft.	11.50	6,900
<u>CONTEST</u>	Contest	4,320 Sq.Ft.	14.00	60,480
<u>RODEO ARENA</u>	Arena	112,872 Sq.Ft.	34.00	3,837,648
	Stock Barns	7,200 Sq.Ft.	15.00	108,000
	Concessions	8,560 Sq.Ft.	19.00	143,640
<u>OPERATIONS CONTROL</u>	Maintenance	9,550 Sq.Ft.	15.20	145,160
	Offices	2,938 Sq.Ft.	28.70	84,320
	Coordination	600 Sq.Ft.	28.70	17,220
	Restrooms	1,200 Sq.Ft.	35.00	420,000
	Fire and Ambulance	<u>1,900 Sq.Ft.</u>	21.00	<u>39,900</u>
		273,715 Sq.Ft.		\$6,886,128.0

This is the total cost for buildings only.

SITE WORK

<u>PAVING</u>	- Asphalt Walks -	5,000 Sq.Ft. at \$	2.35/Sq.Ft	\$ 11,750
	Brick Paving -	3,000 Sq.Ft. at	4.35/Sq.Ft.	13,050
	Parking -	5,000 Spaces at	230.00/Space	1,150,000
<u>LANDSCAPING</u>	-	16,000 Sq.Ft. at	4.20/Sq.Ft.	<u>67,200</u>
			TOTAL	\$1,242,000
			GROSS BUILDINGS COST	+ <u>6,886,128</u>
			TOTAL PROJECT COST	\$8,128,128

This total cost is based on buildings built today. To adjust for the time required for this project to begin and end, a rate of inflation of one percent per month will be added to the total project cost for a period of eighteen months.

1981 - Total Project Cost -	\$8,128,128
- 18 Mos. - 1% Inflation Rate/Mo. -	<u>\$1,463,063</u>
1983 - Total Project Cost (Completion) -	<u>\$9,591,191</u>

Source - Mid-year 1981, End-year 1980 and Mid-year 1980 issues of Cost and Trends of Current Building Projects - Region F by Dodge Reports

- Building Construction Cost Data for 1979

CASE STUDIES

FOUR STATES FAIR
TEXARKANA, U. S. A.

CONTEXT: The fair ground complex is located in or adjacent to one of the major city parks. It has fairly level contours with some trees. It borders an interstate, but access is restricted due to the fact that users must drive through residential districts from major roads to reach the grounds. As mentioned above, the park is located in residential districts on the north border of the city. The weather during September is fairly mild but the humidity and rainfall levels are high.

CONFIGURATION: These grounds are laid out along two major axes. They form a cross pointing to the south. The exhibition buildings are located at the south end of the major axis while the carnival or midway is located at the other end. On the east axis is located the livestock exhibition center and rodeo arena. All buildings are one story and have a very large volume inside. The scale is good, but becomes too crowded when very many people are present.

BUILDING TYPOLOGY: All buildings are exhibition structures for use by exhibitor and user. There is one small office building for the Fair Association. The outdoor stage is small and cramped, but the rodeo arena is a very good size. Inexpen-

sive technology is the most important factor determining size and quality of these structures. The parts of these grounds work well to form a small but complete whole.

VALUES EXPRESSED: The client's priorities are the most important expressed. The client being the user and exhibitor. Both individual and group visits and exhibitions are encouraged by the design of these plans.

INTENTIONS/GOALS: The main goal of this design is to promote easy access and allow different periods of visitation to all exhibitions. It all intends to be changeable and flexible in the nature of exhibits and activities.

ACTIVITIES: These include home arts, fine arts, agriculture, children's, livestock and exterior exhibits. Also, there is an independent midway, a carnival, a cattle show and an annual rodeo.

TECHNOLOGY: The type of technology utilized is very diverse. Both concrete block and steel or metal buildings are used. Paving materials include gravel and asphalt. There is little landscaping.

ARCHITECTURAL SOLUTION: It appears that this complex may have been adequate at one time, but growth and changing interest in exhibitions have left it too congested.

PANHANDLE SOUTH PLAINS FAIR
LUBBOCK, TEXAS

CONTEXT: This fair grounds complex is located in the industrial district of Lubbock at the intersection of three major roadways. The site itself is extremely flat. Plenty of parking is available but at peak times parking is very congested, as are the roadways around the grounds. In September, when the fair is held, it can be extremely or mildly cold with seasonal late summer rainfall.

CONFIGURATION: These grounds are laid out on three or four axes. Some bisect the whole complex while others lead from one major point to another. Growth and changing building types have caused the many axes and directions. The buildings are all one story. The scale is very good in some areas and poor in others.

BUILDING TYPOLOGY: The buildings are mainly exhibition type buildings with one building or group of structures for each type of exhibition. Inexpensive technology is one of the main factors affecting space and quality. Most buildings are oriented to the public user, giving them an opportunity to view the exhibits at their own rate. The parts of this complex are important to themselves but not very important to each other.

VALUES/PRIORITIES: The user's priorities and values (including the exhibitor, the public, and the administrators) are the ones expressed in design. This complex is for public use. It offers a place of exhibition for the exhibitor. It contains opportunities for both group and individual projects, visits, and exhibits.

INTENTIONS/GOALS: The main goal is to provide a comfortable, adequate space to display and view exhibits, watch people and events, and just walk around. To do this, the grounds seem to be able to change according to yearly needs. One other goal is to keep the cost to public and other users down to a minimum.

ACTIVITIES: Activities include art, home arts, agriculture, commercial, horticulture and livestock exhibitions. Also, there are horse shows, a carnival and an independent midway. A coliseum is used for concerts and other activities throughout the year. Outdoor acts are also carried on during the fair.

TECHNOLOGY: The materials and types of structures vary greatly. Steel buildings and brick and block structures are used extensively. Paving materials include asphalt and concrete. There is very little landscaping.

STANDARDS: width of walks - 10 feet to 30 feet maximum, depth of carnival loop - 1,000 feet, exhibition buildings - modules of 30 feet.

ARCHITECTURAL SOLUTION: The scale of exterior spaces is very good. It is comfortable to be there during the fair. Exhibition building serve their purpose well but are rather dull. Livestock exhibition facilities are jumbled. There is no sense of order in that area. The walks and carnival area are well designed.

STATE FAIR PARK
OKLAHOMA CITY, OKLAHOMA

CONTEXT: The site is mostly level. It is located near an interstate with plenty of parking. It is also located on the edge of Oklahoma City.

CONFIGURATION: Its mixture of structures are both large exhibition type structures and small personal buildings. The entire complex has several axes bisecting it with a monorail loop circling it.

BUILDING TECHNOLOGY: Most buildings are exhibition structures. They all seem to be relatively inexpensive structures. They vary in size, shape and color. They are user oriented and developed for interaction between the exhibitor and the fair goer.

INTENTIONS/GOALS: Since the nature of fairs is to change and adapt to the wishes of exhibitors and fair goers, these are the goals of this design. By growing and changing, the grounds have fulfilled these desires. This can be seen in the use of linear axes developed with an effort being made to keep the entire project in balance. Most axes are capped at the end instead of floating away. This helps give the user a better

sense of orientation. In turn, this promotes more visitation of exhibitions.

ACTIVITIES: Activities include an arena, livestock exhibition, art exhibitions, home arts, travel exhibition, frontier exhibition and an international exhibition building. Outdoor activities include an independent midway and a carnival as well as a race track and outdoor exhibitions.

TECHNOLOGY: A mixture of all types of building materials and structures are seen here. Many different paving surfaces and landscaping techniques are also used. The buildings are gayly colored and the grounds are also decorated to promote the feeling of festivity.

ARCHITECTURAL SOLUTION: Although I did not visit this site personally, from all the data I have researched it appears to function very well. There is enough diversity but not a cluttering effect.

GERMAN PAVILLION
'67 EXPO

CONTEXT: World Exhibition, Montreal, Canada, 1967. This site was relatively flat. It was on the site with several other important pavillions at the '67 Exposition.

CONFIGURATION: It is hard to give this structure any definite shape other than it is a tensile tent-like structure. It has both high points and low points in the curvature of this form.

BUILDING TYPOLOGY: This is a ground-dominated, built for people exhibition pavillions. It was build soley for one reason - the '67 Expo. It is introverted as well as extroverted, and the whole seems to be more important than the parts.

VALUES EXPRESSED/PRIORITIES: I believe the most important values and priorities expressed are those of the designer, Frei Otto. This is a typical example of his work. He tries to express both the warm comfortable feeling a tent structure gives to the user and the interesting technology required to build such a large structure.

GOALS: Otto intended this structure to be an exciting place to be to view the exhibitions of Germany. The cost of this pavillion was not an overriding factor since it was a government operation.

ACTIVITIES: Activities carried on in the space are mainly ones of exhibition. It is an open, free-flowing space from one exhibition area to another. Entry can be obtained at many points.

TECHNOLOGY: The structure was a tensile one with many rim cables and steel masts supporting the roof skin. It was designed, manufactured and built in fourteen months.

ARCHITECTURAL SOLUTION: Otto produced a very interesting, free-flowing space in which it was comfortable to meander about and view the exhibits.

GERMAN INDUSTRIAL EXHIBITION

CONTEXT: This exhibition is located in Khartoum, Sudan in Africa. It is located on a flat stretch of desert with no trees or vegetation and a lot of sand.

CONFIGURATION: The site is filled with many large volume buildings and outdoor flat exhibition areas. The buildings are rectangular in form as are the outdoor exhibition areas.

BUILDING TYPOLOGY: These buildings were built for exhibition only. The whole site is for promotion of German industry.

GOALS: These buildings were created to be built quickly and function well in the desert climate. Natural light was used extensively. The control of sand storms was also sought for. These buildings, as all exhibitions buildings, were designed for flexibility in their contents.

ACTIVITIES: Activities include inside and outside exhibitions, a restaurant, and outside cinema - all for promotion of German industry. Parking lots for vehicles are also maintained.

TECHNOLOGY: All the buildings are of the same type. They consisted of a system of external lattice frames on which

profiled light metal sheets were hung for both the ceiling and walls. Daylight was allowed to enter through light metal slat blinds the whole height of the wall. These could be shut quickly in the event of a sand storm.

ARCHITECTURAL SOLUTION: These structures were designed, manufactured and built in only twelve months. They are very cost effective. They house a lot of space with very little effort. In this manner, the design succeeds. But there is some question as to how the people of the Sudan used and liked these structures.

BIBLIOGRAPHY

FOOTNOTES

¹ Harry J. Carman, The Agricultural Fair (New York: Columbia University Press, 1935), pp. 46-49.

² Ibid., pp. 43-44.

³ Four States Fair 1945-1973 (Texarkana, Texas: Four States Fair Assn., 1973), p. 3.

⁴ Ibid., p. 4.

⁵ Ibid.

⁶ Ibid., pp. 10-11.

⁷ Ibid., p. 5.

⁸ Four States Fair 1945-1975 (Texarkana, Texas: Four States Fair Assn., 1975), pp. 8-9.

⁹ Harry J. Carman, The Agricultural Fair (New York: Columbia University Press, 1935), p. 216.

¹⁰ "Hi, Ho, Come to the Fair", Forbes, 15 September, 1976, p. 22.

¹¹ Harry J. Carman, p. 240.

¹² Ibid.

¹³ 1980 Census (Texarkana, Texas: Chamber of Commerce, 1980).

¹⁴ C. R. Smith, Weather Atlas of the U. S. (Detroit, Michigan: U. S. Dept. of Commerce, Gale Research Col., 1968), pp. 65.

¹⁵ Soil Survey of Bowie County Texas (Texas Agricultural Experiment Station, Soil Conservation Service, 1980), p.1.

¹⁶ Everything You Always Wanted to Know About Texarkana . . . But Never Asked (Texarkana, U. S. A.: Chamber of Commerce, 1980), p. 1.

¹⁷ "Thousands to Flock to the Fair", Texarkana Gazette, 4 October, 1981, p. 1.

- 18 19 County Retail Trade Area Texarkana, Texas-Arkansas (Texarkana, Texas: Chamber of Commerce, 1980).
- 19 Everything You Always Wanted to Know About Texarkana . . . But Never Asked, p. 4.
- 20 Ibid.
- 21 Recommended Transportation Plan 2000 (Texarkana, Texas: Texarkana Urban Transportation Study, 1979).
- 22 History, Economy and Population (Texarkana, Texas: Chamber of Commerce, 1980).
- 23 Ibid.
- 24 Ibid.
- 25 Everything You Always Wanted to Know About Texarkana . . . But Never Asked, p. 12.
- 26 Texarkana (Texarkana, Texas: Chamber of Commerce, 1980), p. 2.
- 27 Land Use and Zoning Administration Texarkana, Texas (Texarkana, Texas: Springe and Associates, 1970), p. 2.
- 28 On Site Observation.
- 29 Personal interview - Marion Reed, Director of the Fair.
- 30 Diagram Techniques - Jancuska.
- 31 Four States Fair Premium List (Texarkana, U. S. A.: Four States Fair, Inc., 1981), pp. 114-126.
- 32 On Site Observation.
- 33 Personal interview.
- 34 On Site Observation.
- 35 Personal interview.
- 36 Ibid.
- 37 On Site Observation.
- 38 Personal interview.
- 39 Ibid.

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- 40 Ibid.
- 41 Ibid.
- 42 On Site Observation.
- 43 Personal interview.
- 44 Ibid.
- 45 Ibid.
- 46 Ibid.
- 47 Ibid.
- 48 Don Chambers, RLA, "Master Plan Summary" (Mehlburger, Tanner, Renshaw and Associates, Inc., October, 1980),p. 6.
- 49 Ibid., p. 6.
- 50 Ibid., p. 6.
- 51 Ibid., p. 7.
- 52 Ibid., P. 11.
- 53 Ibid.

BIBLIOGRAPHY

- Carboni, Erberto. Exhibitions and Displays. Silvana Editoriale D'Arte, 1957.
- Carman, Harry J. The Agricultural Fair. New York: Columbia University Press, 1935.
- Cheek, Neil Jr., Field, Ronald, Burdge, Rable. Leisure and Recreation Places. Ann Arbor Science Publishers, Ann Arbor, Michigan, 1976.
- Clasen, Wolfgang. Exposition Exhibits Industrial and Trade Fairs. New York, Frederick A. Praeger, 1968.
- Cost and Trends of Current Building Projects. F. W. Dodge Division, McGraw-Hill, New York, New York, 1981.
- Feves, Gene. Rodeo! American Folklore. Crescent Publications, Los Angeles, California, 1972.
- Four States Fair, Inc. Four States Fair and Rodeo, 1945-1975. Four States Fair, Inc., Texarkana, U. S. A., 1975.
- Four States Fair, Inc. By-Laws. Four States Fair, Inc., Texarkana, U. S. A., 1974.
- Four States Fair, Inc. Four States Fair and Rodeo, 1945-1975. Four States Fair, Inc., Texarkana, U. S. A., 1975.
- Gardner, James and Caroline Heller. Exhibition and Display. F. W. Dodge Corporation, 1960.
- Godfrey, Robert S. Building Construction Cost Data for 1979. Robert Snowmea Company, Duxbury, Massachusetts, 1978.
- "Hi, Ho, Come to the Fair." Forbes, 15 September, 1976, pp. 31-32.
- Juergenson, Elwood M., Ph.D. Handbook of Livestock Equipment. The Interstate Printers and Publishers, Inc., Danville, IL, 1971.
- Mangels, William F. The Outdoor Amusements Industry. Vintage Press, Inc., New York, 1952.
- Marvin Springle and Associates. Land Use and Zoning Administration, Texarkana, Texas. Springer and Associates, Dallas, Texas, 1970.

- Olgay, Victor. Design with Climate. Princeton University Press, Princeton, New Jersey, 1963.
- Powder River, Inc. Livestock Handling Equipment Catalog. Powder River, Inc., Provo, Utah, 1981.
- Powder River, Inc. Rodeo Arena Plans. Powder River, Inc., Provo, Utah, 1981.
- Powder River, Inc. Rodeo Equipment. Powder River, Inc., Provo, Utah, 1981.
- Ramsey, Charles G. and Harold R. Sleeper. Architectural Graphic Standards. New York: John Wiley and Sons, Inc., 1970.
- Recommended Transportation Plan 2000. Texarkana Urban Transportation Study, Texarkana, Texas, 1979.
- Smith, C. R. Weather Atlas of the U. S. U. S. Dept. of Commerce, Gale Research Co., Detroit, Michigan, 1968.
- Soil Survey of Bowie County Texas. Soil Conservation Service, Texas Agricultural Experiment Station, 1980.
- Sun Angle Calculator. Libbey-Owens-Ford Company, Toledo, Ohio, 1925.
- Texarkana. Chamber of Commerce, Texarkana, U. S. A., 1980.
- "Thousands to Flock to the Fair." Texarkana Gazette. 4 October, 1981, p. 1.
- Robinette, Gary O. Parking Lot Landscape Development. Environmental Design Press, Reston, Virginia, 1971.
- International Conference of Building Officials. Uniform Building Code 1976 Ed. Whittier, California, 1976.
- Southern Building Code Congress International, Inc. Standard Building Code 1976 Ed. Birmingham, Alabama, 1976.
- Municipal Code Corporation. Code of Ordinances, City of Texarkana, Texas. Tallahassee, Florida, 1981.
- 1980 Census. Chamber of Commerce, Texarkana, Texas, 1980.
- 19 County Retail Trade Area, Texarkana, Texas-Arkansas. Chamber of Commerce, Texarkana, U. S. A., 1980.

INTERVIEWS AND SITE OBSERVATION

On site observation - Conducted day and night on October 10, 1981 - Four States Fair. Also on site observation - day and night at the Panhandle South Plains Fair in Lubbock, Texas.

Personal interview with Mrs. Marion Reed, Director of the Four States Fair.

Personal interview with Joseph Rucker, Professional Fair Ground Planner in Dallas, Texas.

MAPS AND PLANS

Map of Texarkana, 1980

Map of Bowie County, 1980

Zoning Map of Texarkana, Texas

Zoning Map of Texarkana, Arkansas

Land Use Map of Texarkana, Texas-Arkansas

Texarkana and Mandeville Quadrangle

Maps and Series, U. S. Dept. of the Interior Geological Survey

DOOUMENTATION

The following pages constitute a verbal explanation of the design process and solution. In trying to put my thesis solution into words, I became very uncomfortable. This is largely due to the lack of easy access to points of reference contained in my graphic presentation. In order to compensate somewhat for my easiness, I have included a photographic reproduction of my presentation.

CONCEPTS

After beginning preliminary concept work early in the design process, I came to realize the extreme importance of case studies. I came to understand the use and value of the axis layouts in fairground design. Also, the relation of buildings to each other and to people in existing fairgrounds and similar facilities were very helpful in establishing my design criteria.

One of my primary concepts became the one primary axis from east to west. This is altered somewhat by the secondary north to south axis and the easier, free area to the west of the rodeo arena. This axis system was developed as a result of extensive case study and a need to provide adequate orientation to the user and proper site zoning of all activities.

Another primary concern was the relation of the user to the building or exhibit. By this, I mean the scale of physical structure was very important. The roof form and distances between

buildings and people controlled by the berms around the buildings were my attempts at trying to establish a comfortable scale that the people could relate to. An analogy can be drawn between the distances and layout of a residential street consisting of the public street, a semi-public green yard and the private house and the mall-axis development consisting of the pedestrian thoroughfare, the green berm and the exhibition pavilion.

DESIGN

As mentioned before, the design consists of a major east-west axis crossed by a minor north-south axis. The major axis is capped on the west end by the midway area and on the east end by the rodeo arena. The site is therefore divided fairly evenly to allow for easy parking dispersal. This leads to the establishment of four entry gates.

On the west end of the grounds, the entries lead along the north-south axis to the Four States Flag Plaza. In this area of the plan are located the exhibition buildings and exterior exhibition spaces.

The east entries open directly to the rodeo plaza. The rodeo also has separate box office facilities. The rodeo arena, as well as the other livestock activities are located on the north side of the access for odor and drainage control.

The typical exhibition design was selected for many reasons. It provides uniformity, as well as opportunities for good scale

relations. I felt that the exhibition itself was the activity. This in turn released the building in most similar exhibit activities to respond to scale and climate problems. The long, low overhang was used to provide much needed shade, as was the implementation of numerous trees. To also provide cooling, large fans located in the clerestory would be used to pull air from vents in the eaves to create a more comfortable atmosphere.

Another important point in the design was a planned resting area. On the east end of the axis. This tree covered island in the middle of the street was intended to become an area of escape for different periods of time to different fair goers.

STRUCTURAL/MATERIALS

Paving and surface materials used were kept to a minimum. Asphalt was chosen as the material used the most due to its easy cleaning, soft walking and good appearance. It is complimented with compacted gravel in the exterior display areas. Some walks are concrete while some are brick paving.

Materials on most exhibit buildings include brick exterior and interior walls, laminated wood trusses with a wood deck roof and a redwood shingle roof. The finished floor in all buildings is concrete. Most other buildings will be pre-engineered metal buildings.