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A Bus Terminal Facility for Santa Fe, N.M.

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BUS TERMINAL FACILITY FOR SANTA FE, N.M. · BELTRAN

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STATEMENT OF THE PROBLEM:

The city of Santa Fe has long been in need of an adequate, up-to-date bus terminal facility to serve the city and satisfactorily fulfill its transportation needs. This need was recognized as far back as 1946 when the firm of Harland Bartholomew and Associates submitted a comprehensive plan study to the city, noting:

> "...it would be most desirable for the city (of Santa Fe) to have a new Union bus depot. The present terminal (is) not satisfactory to handle the present traffic. (It has) the disadvantage of bringing bus traffic into the very heart of the business district and consequently increasing congestion in the district."

More recently, the former Assistant City Planner for the City of Santa Fe emphasized the foregoing observation by stating:

> "The present site of Santa Fe's bus terminal has become unsuitable for reasons of inadequate loading and parking space, congested circulation, incompatibility with surrounding activities and the like."

The present facility known as the Union Bus Depot, is hopelessly inadequate, inefficient, depressingly unsightly and, above all, has not kept abreast of the city's pressing transportation problems. It is situated near the center of the city's business district thus creating vehicular and pedestrian conflicts. The city's antiquated narrow streets prohibit safe and easy manuvering of the coaches adding to the already dangerous conflicts at street intersections.

A new bus terminal would provide the city with a modern, more efficient facility capable of serving the public transportation demands of the city and state without interfering with pedestrian and vehicular movements.

The bus terminal is the only major transportation terminal facility located within the city limits. Both the railroad and airport terminals are situated at a considerable distance outside the city creating connection problems to and from destination points. Railroad passengers arrive at Lamy, New Mexico, some 18 miles southeast of Santa Fe and must make a connection at the train depot to the A.T.&S.F. ticket office within the city. From there passengers must arrange for further transportation to their final destination. The railroad utilizes a shuttle-bus system for transferring passengers from the depot to the city and visa versa

although there is no actual unloading facility and the existing bus depot is not utilized.

With a new facility, and in addition to regular intercity bus scheduling, incoming railroad passengers could be bussed directly to the bus terminal where conditions for boarding and disembarking would be much safer for both the vehicle and the passenger. Passenger conveniences at the proposed facility would enable the person in transit to arrange transportation to his final destination more easily.

The Santa Fe Airport is located approximately 5 miles southwest of the city. A similar shuttle-bus system could be devised for the airport-to-town connection bringing passengers into the city directly to the terminal Because of the great distances involved, taxi-cab services would be unfeasible economically while the shuttle-bus system would be more practical. Thus all three of the major modes of transportation could be linked together at the proposed terminal facility. With an existing schedule of approximately ten arrivals and departures of regularly scheduled busses a day, the above proposal would not would not burden the facility but provide more activity.

The new facility will contain the normal terminal requirements; waiting space, ticket sales, baggage and express areas, administrative offices, etc. A more detailed list of spaces can be found in the SPACE REQUIREMENTS section of

this program. In addition, traveler conveniences such as public telephones, car-rentals, travel information and locker storage to name a few will be provided.

Since the proposed terminal facility will neither be large enough nor busy enough to provide enough revenue to operate by itself, support facilities will be proposed to assist the terminal proper. These will include a restaurant, newsstand, cocktail lounge and a number of shops. Overnight accommodations such as hotels and motels will be handled by the siting phase of this proposal. Not only will the support facilities provide accessible conveniences for the traveler but will in turn keep the terminal "alive" during the off season.

SITE CONSIDERATIONS:

It is no longer necessary to situate a bus terminal near the center of the community as taxi-cabs and personal automobiles solve the problem of the traveler arriving at his destination from the depot.

> "It would be most desirable to ...locate this terminal in such a way that bus travel through the congested narrow streets of the business district would not be necessary."

While a downtown location is preferred, the perimeter

of the downtown would provide better access and still be convenient to hotels, motels, restaurants and car rental agencies. Such a perimeter location is available one or two blocks west of the existing depot in the De Vargas Urban Renewal Project Area.

There are basically two types of urban renewal: building rehabilitation and total clearance of land. The advantage of the latter is that the land is cleared and accessible. There is no problem having to locate property owners and argue prices. Whole blocks can be acquired. The hardest part of developing an area is piecing together parcels of land owned by individuals with varying demands. The Urban Renewal Project eliminates this deterrent. Selection of a site in the Project area will provide more design flexibility.

In order to become acquainted with the site it will be necessary to become familiar with the project area.

The Santa Fe River runs east to west through the approximate middle of the 24.2 acre project area (See site plan). The River effectively divides a primarily low income residential area on its south side from the commercial but blighted edges of the Central Business District to the north . The urban renewal will, of course, eliminate the blight. The existing commercial areas on the north side and the River are within easy pedestrian access to the Santa Fe Plaza.

The area is within easy pedestrian walking distance from the State Capitol complex and downtown hotels. The ancient plaza with its historical museums and shops is only two blocks east.

The CBD adjacent to the project is a predominantly pedestrian area. The strategic location of the project will also complement and enhance the CBD and the New Mexico State Capitol.

The area in which the site has been proposed is designated by the City of Santa Fe as a Special Central Business District. This district is intended to support and improve the CBD by providing commercial uses which are complimentary to those permitted in that district. It will permit certain uses not amenable to the CBD and yet be relatively accessible to that district. Among these permitted uses are: "Transportation terminals other than truck terminals." To be sure, the land use being proposed is permitted.

Major arterials radiate from the site thus making access to and from the proposed facility ideal. Existing four-lane streets and proposed widening of two-lane streets will alleviate conflicts and congestion making it faster and safer to approach ther terminal. Major pedestrian areas such as the CBD and the plaza will be avoided but will remain within easy walking distance of the terminal.

Considerations within the terminal area proper for parking and maintenance of the buses should also be taken into account. EXTERIOR SPACE REQUIREMENTS WILL BE GREATER THAN INTERIOR SPACE REQUIREMENTS BECAUSE OF THE NATURE OF THE PROBLEM. Space must be made available for busses arriving and departing or "working busses" near the terminal for convenient access. A storage area in the lot is also necessary for those coaches not in service or receiving maintenance attention.

Special attention must be given to the area in which the bus and the passenger come in contact. Safety and efficiency is the prime consideration here. Passengers should be able to disembark safely to a convenient level and not interfere with other operations of unloading or cross vehicle paths on their way into the terminal. Circulation conflicts between buses and passengers create a liability on the bus company and should be avoided whenever possible. The same is true with respect to baggage and express. Unloading of pouch mail and baggage and transferring to the terminal for dispersal must not interfere or conflict with passengers loading or unloading. Moving buses should not conflict with stationary vehicles and should be able to enter and exit the terminal area free of obstacles and distractions. Merging into normal traffic flow from the terminal should be reasonably safe

and smooth without endangering or jeopardizing the lives of motorists or passengers.

CONCEPT:

Any transportation terminal whether it be bus, railroad, or airport is symbolically a door or gateway to the city. Through it travelers enter and leave the community. Their first glimpse and consequently their first impression of the city is through the terminal facility. It is the traveler's initial and conversely his final intimate contact with the city. There is a lot of drama and emotion connected with a terminal. Joyous reunions and sad farewells take place in it. It is as much a landmark of the modern community as the church or city hall. It is a symbol of the modern mode of traveling.

It should reflect as close as possible the atmosphere or personality of the community. The building should express or convey the latest in structural and design technology without seeming out of place. Its scale and appearance should be compatible to the locale. It should blend harmoniously into the community but also establish itself as a landmark.

Because of the dependence of the city on its historical background and cultural heritage as its chief source of revenue through tourism it is highly imperative that the facility preserve and enhance the city's character, even emphasizing it. It should not, however, succumb to gadgetry or gimmicks or present itself as a movie set of the old west. It should be a modern interpretation of what the city is attempting to

preserve:

"That in order to promote the economic, cultural and general welfare of the people of the City of Santa Fe, and to insure the harmonious,orderly and efficient growth and development of the municipality, it is deemed essential by the City of Santa Fe, that the qualities relating to the history of Santa Fe, and a harmonious outward appearance which preserves property values and attracts tourists and residents alike, be preserved; some of these qualities being: the continued existence and preservation of historical areas and buildings; continued construction of buildings in the historical styles and a general harmony as to style, form, color, proportion, texture and material between buildings of historic design and those of more modern design."

GENERAL INFORMATION: Nearly 465 million passenger trips were provided by intercity buses in 1965, or about a fifth more than on the railroads and airlines combined. These bus passengers traveled 23.3 billion passenger miles during the year, or 23.8 per cent of all intercity travel in the United States other than by automobile or private airplane. Passenger miles of bus travel have been increasing steadily since 1960 or 1961, with travel during 1965 totaling about 18 per cent more than in 1961. This increase in bus travel occurred at the same time that rail travel declined somewhat more than 14 percent and airline travel showed an increase of approximately 65 percent.

Intercity buses provide the only means of public transportation for persons traveling to and from large number of communities throughout the country.

These buses also provide highly expeditious transportation of package express and mail. Travelers and shippers of package express, as well as the Post Office, are becoming increasingly dependent on bus service as unprofitable rail passenger runs are curtailed or discontinued.

Bus companies in all parts of the country are constantly modifying their service and schedules with a view to giving to the riding public the maximum advantages of

the most modern equipment and newest highways. Time schedules between metropolitan centers have been reduced substantially over the past two decades by using express highways and turnpikes, wherever feasible and by increasingly extensive through bus services, which permit passengers to travel many hundred or thousands of miles without changing from one bus to another.

Intensive development of through bus service has not reduced requirements for comprehensive service to communities of all sizes, both on and off the express highway routes. Routes and schedules serving communities and areas away from metropolitan centers always constitute an extremely important part of intercity bus operations, both to provide transportation between and into smaller local communities and rural areas and to furnish feeder or branchline service so necessary for many travelers on long trips. The great flexibility of bus transportation is reflected in the fact that many individual schedules provide local or frequent stop service on part of the route and express or nostop service the rest of the way. However, duplication of express and local schedules is required all too often on routes where the numbers of travelers are insufficient to provide even minimum loads on both the local and express runs.

Intercity bus transportation, is provided in the United States by an estimated 1,400 companies whose operations fall basically into one or both of the following categories:

(1) transportation or passengers on regular intercity routes and on specified time schedules. Large numbers of express packages, as well as substantial volumes of mail and newspapers are carried on these buses in addition to passengers and their baggage.

(2) charter-party and special-party transportation by bus, with routes and time schedules arranged to the convenience of the individual traveling groups.

In addition to passengers, buses now carry substantial amounts of package express and pouch mail. The regularly scheduled services operated by buses facilitate the prompt delivery of both express packages and mail, particularly to small communities. The convenience of these services is evident from the fact that packages may be sent or received at more than 18,000 bus depots in communities of all sizes and at thousands of intermediate points where transactions are handled by drivers.

Approximately half of the estimated total of 1,400 intercity bus companies are in interstate service, either because they actually carry passengers from one state to another or because they regularly interchange passengers with other companies whose buses do cross state lines.

Passengers on shorter trips constitute the bulk of the patronage of regular route service operated by the smaller companies.

CHARACTERISTICS: Bus service is becoming increasingly popular among passengers on long trips. However, the average bus trip continues to be somewhat shorter than the typical journey by rail and well under the average trip by air because much bus travel is between communities relatively short distances apart to and from points on our highways where no other public transportation is available.

The average cost of intercity-bus travel to the passenger is well under that for the railroads and about half the average for airline coach service.

SEASONAL PATTERNS: Variations in travel volume between seasons are reflected in most aspects of intercity-bus operations. The third quarter (July, August and September) typically accounts for the largest proportion of annual operations in regular route service, while the seasonal high in charter and special service tends to fall in the second quarter (April, May and June).

SAFETY RECORD: Intercity bus travelers are a great many times safer than automobile riders. Accident fatality rates, as computed by the National Association of Motor Bus Owners from Interstate Commerce Commission data indicate

0.18 passenger fatalities for each 100 million passenger miles traveled during the years of 1963, 1964, and 1965. Automobile passengers, by comparison had a fatality rate of 2.4 per 100 million passenger miles during the same three year period.

HISTORY OF THE INDUSTRY:

Bus transportation come into being in the early 20's when a few far-sighted men saw the potential and need of moving people from one place to another which were not served by railroads or other means of transportation available at that time. At this time "buses" were just passenger cars and operated by individual owners. As the need arose, and business increased, these cars were "stretched" out to provide more passenger space, carrying 7 to 9 passengers. Road conditions at that time were also a limiting factor. As competition increased, changes and improvements in "buses" were made, roads were improved, and the need for this form of transportation became more and more prevalent. In the late 20's small bus companies were formed, special type "buses" were designed and constructed, and the bus industry was established. As highways were established and roads improved, the bus industry expanded and traveled further and further, serving more towns and cities, and became an accepted mode of travel by the public.

With the advent of air travel and improved rail facilities, the bus industry continued to expand and improve due to its flexibility and lower fares.

Today, modern buses equipped with rest rooms on board, year-round air conditioning, comfortable lounge type seats, plenty of baggage space, professional and safe drivers, tra-

vel up and down our modern highways and freeways on numerous schedules per day, picking-up and discharging passengers in the center of the cities and towns they serve. Time schedules have constantly been improved and the comfort and courteous handling of passengers and their personal baggage is constantly being studied for further improvement. Our modern buses have seating capacity for 46 passengers.

BASIC ISSUES: In order to determine the basic issues of the problem a systematic method of interviewing was employed. Following are the questions which were asked:

What does the future hold for bus transportation?

Are passengers and trips increasing or decreasing?

What are the important physical spaces within a bus terminal?

What is the relationship of passengers to freight? Which seem to dominate per trip?

Are there any buses which carry only mail or freight?

What are the major ancilary facilities connected with a bus terminal?

Are there any planning standards employed in the design of a bus terminal?

What are the basic requirements of a bus terminal?

What are the space requirements of a bus terminal? Specifications?

Is there any special equipment involved in processing passengers? Freight? Transportation routes?

Is there any special equipment predicted for future use?

What are the basic requirements of approach to and departure from a terminal by a bus?

Are there any safety standards in terminal design?

Who rides the bus?

What class in the social structure do bus riders fit in?

What are the dimensions and specifications of a single level bus?

What are the dimensions and specifications of a double level bus?

Are you, as a major bus company, content with the terminal facility in Santa Fe?

Could a change in business be predicted with a larger, more up-to-date facility?

What changes could you or would you recommend for the Santa Fe facility?

ANSWERS TO BASIC ISSUES:

What does the future hold for bus transportation?

CONTINENTAL TRAILWAYS: There will always be a need for bus transportation. Air lines and trains cannot accommodate the "short-haul" passengers. There is still a large percentage of the traveling public who will not ride on airplanes. Railroads are doing their utmost to get out of passenger service. Bus service will always be required.

Are passengers and trips increasing or decreasing?

CONT. TRAIL.: Travel by the general public is "seasonal" generally. During the spring and summer months, during vacation time, bus travel is at its peak. During the late fall and winter months the traveling public does not move about as much. But the overall picture indicates that bus travel is increasing year by year, and additional schedules are added when required.

**What are the important physical spaces within a bus terminal?

CONT. TRAIL.: The size and quantity of a bus terminal facility is normally predicated on the population of the community served by the terminal. Basically, a bus terminal should have sufficient ticket counter space; adequate waiting room facilities; adequate baggage and express storage facilities; rest room facilities for men and women; adequate customer parking area and express shipper area and office space. In larger stations, a restaurant or eating facility is desirable. It

is not essential today for such a terminal to be located in the center of the community, near city bus service, as taxicabs and private cars are used by the traveling public.

**What is the relationship of passenger to freight? Which seem to dominate per trip? **

CONT. TRAIL.: Buses are primarily for the carrying of passengers and their personal baggage. The carrying of bus express is growing more and more, but will not be carried to the exclusion of passengers or their personal baggage. Express is carried on a "space available" basis.

GREYHOUND: Even though our express revenue is a very rapidly growing phase of our business, it is still by no means equal to our passenger business - in fact, express still accounts for a relatively small amount of the total.

Are there any buses which carry only mail or freight?

CONT. TRAIL.: There are a few small bus lines that utilize a "divided" bus, i.e. partitioned off in the center of the bus with passengers riding in foreward section, and mail and/or baggage in the rear portion of the bus. There are no bus lines carrying only mail or freight exclusively.

GREYHOUND: We do not schedule any buses which carry only material or express.

What are the major ancilary facilities connected with a bus terminal?

CONT. TRAIL.: In major cities it is desirable that restaurants or cafeterias be a part of or adjoining the terminal facilities. Motels or hotels are not necessary to a bus terminal. However, there is a trend currently by the bus industry to establish intermediate stations at motels which also have restaurants on the property.

GREYHOUND: Major ancilary facilities usually considered in connection with bus terminals are restaurants or cafeterias newsstands, gift shops, and, in some of the major terminals, cocktail lounges.

**Are there any planning standards employed in the design of a bus terminal? **

CONT. TRAIL.: Generally, there is no set design for a bus terminal. However, major companies building new stations try to design their facilities to fit in with the general exterior appearance to fit in with the overall building in that particular area. Specific interior requirements were cited previously.

GREYHOUND: Yes, there are definite planning standards employed in the construction of a bus terminal; however, they of necessity will vary by location, climate, type of terrain, size of market, number of schedules, type and size of lot,etc.

What are the basic requirements of a bus terminal?

CONT. TRAIL.: The basic requirement of any bus terminal is to provide the necessary facilities for the convenience of

the traveling public, predicated on the current and predicted growth of the area being served.

GREYHOUND: Basic requirement of a bus terminal is to meet the needs of the particular market in question. All markets present some different aspects which must be taken into consideration and which do have a definite effect on the specifications of the terminal.

What are the space requirements of a bus terminal? Specifications?

CONT. TRAIL.: Space requirements and specifications must be determined on an individual basis, again considering the population of the given area, number of schedules served per day, whether a 24-hour operation, amount of bus express handled, etc. Special attention is called to the outside space requirements greatly exceed the minimum inside requirements.

Is there any special equipment involved in processing passengers?

CONT. TRAIL.: There is really no special equipment required in most terminals. At major terminals, TWX facilities are installed, garage facilities and fuel pumps are maintained, and commercial type scales required for the weighing of bus express.

GREYHOUND: Special equipment involved in processing passengers is a matter that is difficult to answer, because what we might term special might not seem special to anyone

else, or vice versa. Nevertheless, there must obviously be ticketing facilities, baggage checking, etc. as well as such items as scales, flat bed truck, etc. for movement of express in and around the terminal facility.

Is there any special equipment predicted for future use?

CONT. TRAIL.: As of this writing computers and electronic devices are used in major accounting offices only. I would assume that future technology advances may result in the utilization of such equipment for the control and dispatch of buses on coast to coast schedules.

GREYHOUND: Our accounting departments already utilize the latest computer equipment and hve for some time. What may be in store for the future along this line is subject to review and consideration by many people specializing in that particular department.

What are the basic requirements of approach to and departure from a terminal by a bus?

CONT. TRAIL.: Due to the size of modern buses, generally 8 feet wide and 40 feet long, entries and exits of bus terminals must be of sufficient width and strength to allow safe operation. Buses weigh from 17,500 to 28,500 lbs. unladen weight. Docks should be provided for the loading and off-loading of passengers and baggage or express. Exits should be so constructed to allow good visibility on departure into a flow of traffic.

GREYHOUND: Basically, requirements of approach to and departure from the terminal by bus is primarily safety - in other words, is ingress and egress such that it can be accomplished with relative safety from the standpoint of pedestrians, other vehicles, etc.

Are there any safety standards in terminal design?

CONT. TRAIL.: Thought must be given to safety of passengers. Baggage and express facilities should be located so as to minimize the possibility of passengers trying to claim their baggage at the bus, exposing themselves to falling baggage doors of the bus, tripping over baggage or express removed from the bus, and generally getting in the way of baggage personnel. Entry doors and exit doors from the dock to waiting room area should be two separate one-way doors. Station floor covering should be of a non-slip type.

Who rides the bus?

CONT. TRAIL.: Bus passengers are from every walk of life. I would say generally that the senior citizens are probably the greater number of our passengers. However, we still carry large numbers of students and military personnel. Charter bus service is becoming more and more popular for use by churches, civic groups, schools, clubs, political groups, etc.

What class in the social structure do bus riders fit in?

CONT. TRAIL.: All classes of people ride modern buses, but I would say that the majority of the bus riders is the

average wage earner or retired personnel. Those of limited income.

What are the dimensions and specifications of a single level bus?

CONT. TRAIL.: There are several size buses in use today. However, Continental's Silver Eagle Fleet are single level buses 8 feet wide, 40 feet long, 11½ feet high, 46 passenger capacity, diesel powered, 286 horsepower, wheel base 24'-3".

Are you, as a major bus company, content with the terminal facility in Santa Fe?

CONT. TRAIL.: Speaking as the Division Superintendent for Continental Trailways Western Division, I am not pleased with the terminal facilities in Santa Fe, N.M. It is a "Union" type facility, both major bus companies sharing the same facility; location not desirable due to narrow streets and congested area outside of terminal; and general appearance not up to standards. (C.E. Rose, Western Division Superintendent, Continental Trailways)

GREYHOUND: We recognize the need to constantly upgrade our facilities and service throughout the system, and are doing so at an unusually rapid rate. In the case of Santa Fe in particular, I know of no specific plans at the moment, but it is entirely possible that some improvement may be un-

der consideration in the near future.

Could a change in business be predicted with a larger, more up-to-date facility?What changes could you or would you recommend for the Santa Fe facility?**

CONT. TRAIL: It is my opinion that with a larger more up-to-date facility, business would increase, and that the public image of Santa Fe would be improved, inasmuch as it is the State Capitol and people from all over the State of New Mexico arrive and depart Santa Fe by bus. We are not opposed to a union type transportation center, provided there is adequate space for all users and advertising media permitted for all users.

GREYHOUND: I would not make any specific recommendations at this time with regard to Santa Fe, but doubt that the requirements there would be greatly different from other markets of similar size. Normally, we must be able to foresee an upswing in business in order to justify a major expenditure in connection with a new terminal facility.

PRESENT BUS SCHEDULE:

ARRIVING		DEPARTING	
	1:40 A.M.		4:20 A.M.
	7:55		9:15
	8:15		9:35
	9:30		10:10
	12:20 P.M.		1:00 P.M.
	3:20		3:45
	4:50		3:55
	6:00		7:45
	7:00		10:55

(NOTE: Table does not necessarily read across.)

BUS LINES SERVING SANTA FE:

Greyhound (Western Division)

Continental Trailways (Western Division)

Intercity Transit Lines

OTHER:

New Mexico Transportation

Chama Valley Bus Lines

The Gray Line

SPACE REQUIREMENTS:

Bus facilities: Except where bus traffic parrallels both sides of a building that extends through from street to street, one bus entrance and one exit are normally sufficient. Their width depends on width of street and bus turning radius; 14 ft. is minimum, 16 to 18 ft. preferred. Bus movement should be clockwise, since passenger loading door is on right side of bus.

Passenger requirements: Street entrances should be 2 to 6 doors wide. Entrances should be centrally located; from them the elements of the terminal radiate.

Waiting room should be directly accessible from street. Access to concourse should be through multiple doorways or "gates," so located as to distribute passenger traffic uniformly, without congestion even during peak load periods. Seating may be based on approximately 1/3 passenger capacity of loading docks, assuming 45 to 50 persons per bus. Space allowances range from 15 to 35 sq. ft. per person; 20 to 24 sq. ft. is considered satisfactory. Total area averages 20 to 35 per cent of total building area; the smaller the building the larger the percentage. Drinking fountains, trash baskets and ash receptacles are also needed.

Baggage room should be accessible from both waiting room and concourse. Outside freight has to be delivered without interfering with concourse traffic. Baggage is usually

checked over counter from waiting room and trucked to buses, and vice versa. Area of baggage room should be 10 per cent of total building area or contain 50 sq. ft. for each bus loading dock--whichever is the higher. Large storage space is desirable for holdover and unclaimed baggage. Standard metal racks, one or two units deep and four to five shelves high, are suitable for baggage storage.

Check lockers are desirable in addition to the above facilities and are generally paying concessions. Number of lockers is based on potential earning capacity.

Toilets must be convenient to waiting room. Number of fixtures depends on size of terminal, but as many as economically possible should be provided. Women's lounge should be large enough for a couch, vanity or dressing table, and several chairs. Men's lounge is not desirable.

Ticket office should be prominent in waiting room. In small stations proximity to concourse is desirable but is not essential in large terminals. 50 sq. ft. should be provided per selling position. One position may be provided for each 25 or 30 waiting room seats; but number of positions is usually based on personnel normally rquired and on anticipated extras for peak periods. It is not necessary that ticket office be connected to other offices. Counters should be 42 in. high; cages or windows are not desirable.

ADMINISTRATION AND CONCESSIONS:

Dispatcher's office controls bus movements and should be on concourse at a point from which all loading docks can be supervised. It need not be related in plan to waiting room or ticket office. Public address system is used to announce arrivals and departures of buses.

Offices for terminal manager and passenger agent are usually sufficient. These need not contain more than 100 to 200 sq. ft. each. In larger terminals, offices for regional manager, clerical force, meeting rooms, etc. may be required.

Drivers' quarters are usually limited to lounge and toilet facilities and require private entrance accessible from concourse. Space is needed for reading table, lounging chairs, shelves for tool kits. Sleeping quarters are usually provided at local bus garage, not in terminals.

Restaurant is usually necessary for all terminals, has floor area ranging from 15 to 25 per cent of building area; usually, the larger the terminal, the larger the percentage. Larger restaurants have counter and tables. Patrons prefer booths, tables are more flexible, so both are used. Kitchen area is from 15 to 35 per cent of restaurant area, depending partly on storage facilities.

News stand should be adjacent to waiting room and restaurant.

Barber shop and stores are often included. Space economically available, anticipated demand, size of terminal, etc. have to be considered in allocating space for this type of concession. In small terminals some means of increasing revenue is essential; concessions may be the answer.

Travel bureau is important, particularly in large terminals. It should be on or near street, adjacent to waiting room.

LOADING DOCKS

Parallel loading requires an excessive amount of space per bus. Usually busses in rear cannot move out until first bus exits. In a large terminal several lanes would be required and overhead or underground passage would be necessary to several island loading platforms. Otherwise passengers would cross bus lanes, an extremely dangerous practice which creates a liability on the bus company.

Right-angle or head-on loading is acceptable, but disadvantages include the outswinging bus door which forms a barrier around which passengers must go, and difficulty of maneuvering each bus into its berth. This type of loading is useful when the bus yard is deep, but concourse is limited in extent.

Straight sawtooth loading is efficient and is employed where lot is comparatively narrow and deep. Passenger has direct approach to loading door, baggage truck can operate

between parked busses for loading into side baggage doors.

Radial sawtooth loading is most efficient. Busses may swing into position along a natural driving arc. A minimum of concourse frontage, per bus, is required. In this system each bus space is narrow at front and wide at rear, making maneuvering easy and conserving space.

Number of loading docks is based on average peak loading conditions, size of lot, and size of structure. Abnormal peak conditions such as occur on holidays can be taken care of by "doubles"; that is, by parking additonal busses in the lot and immediately running them into loading docks as scheduled busses depart. Limited dock space is not a serious drawback if ample parking space can be provided for "double"busses.

Passenger concourse is protected from weather by overhead conapy which cantilevers over passenger doors of busses in loading docks. This protects passenger getting on and off busses as well as front baggage doors on sides of each bus.

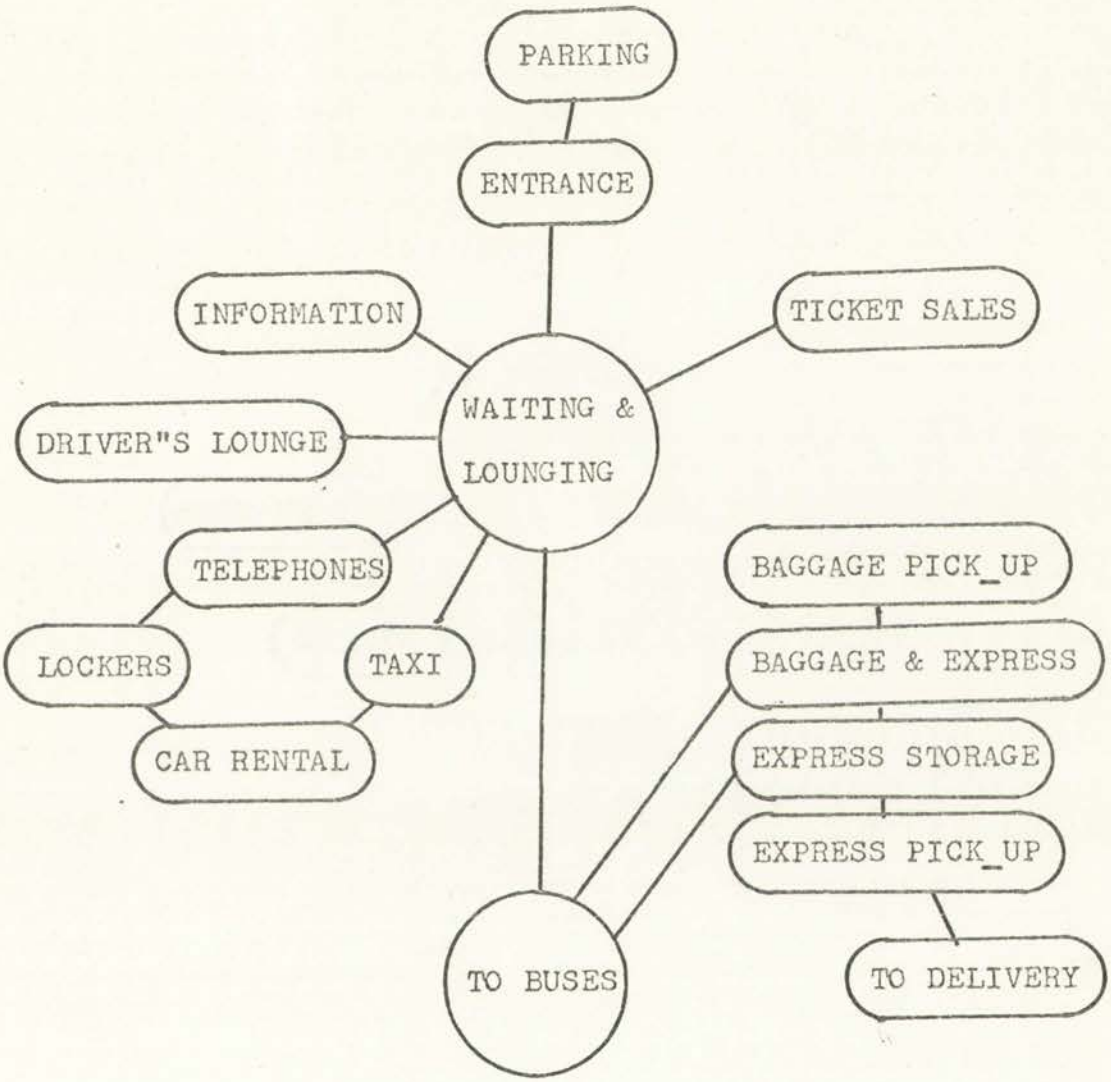
Concourse, bus lanes and yards should be constructed of 7 or 8 inches thick concrete slabs, of 2,500 lb. concrete, reinforced top and bottom with No. 40 mesh. A surface hardener should be employed.

AREA REQUIREMENTS:

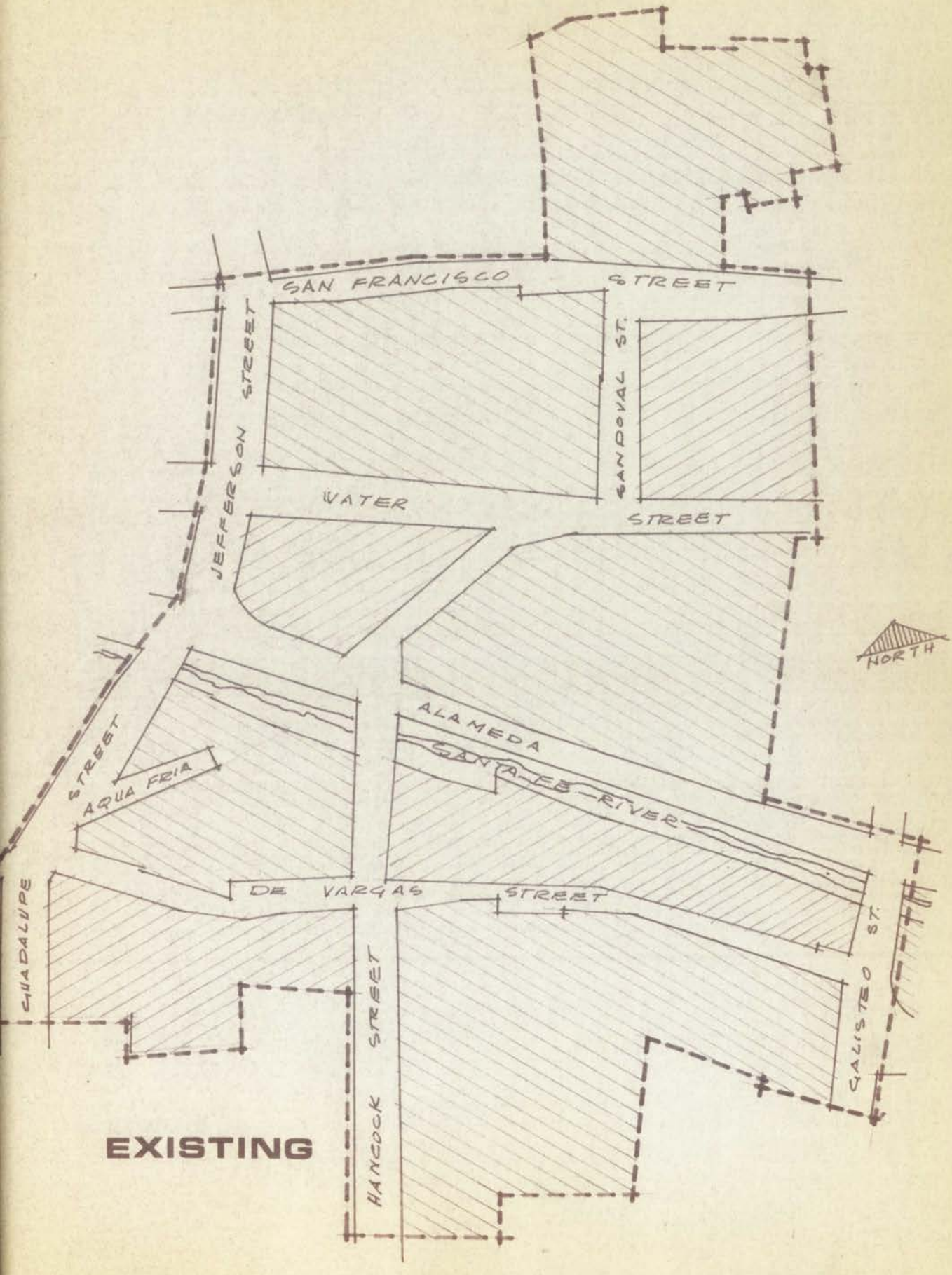
Waiting room	20 ft.^{2}/ person @ 46-50 persons/bus; 4 buses= 200x20ft^2	4000 ft.^{2}
Baggage room	50 ft^2/bus OR 10% of total building	400 ft.^{2}
Ticket Counter	1 position/25-30 seats (66)= 3; 50 ft^2/ selling position= Baggage storage 50 ft^2	150 ft.^{2}
Toilets	Men=150ft^2; Women=150ft^2 Woemn's lounge=50ft^2	350 ft.^{2}
Dispatcher's Office	100 ft ^{2}	100 ft.^{2}
Terminal Manager	150 ft ^{2}	150 ft.^{2}
Passenger Agent	100-200 ft ^{2}	150 ft.^{2}
Driver's Quarters	Lounging & Toilet facilities	200 ft.^{2}
Restaurant	15% - 25% of bldg.	2000 ft.^{2}
Kitchen	20% of restaurant	400 ft.^{2}
Newsstand	Magazines, curios, souvenirs	200 ft.^{2}
Telephones	10 ft^2/booth; 1 booth/dock=	40 ft.^{2}
Cocktail Lounge	30% - 50% of restaurant	800 ft.^{2}
Information & Tourist Bureau	50 ft.^{2}/ position	150 ft.^{2}
Shops	Independent of design criteria; 6 @ 300 ft^2	1800 ft.^{2}
Vault	Estimated	50 ft.^{2}
Car Rental Facilities	50 ft^2/ position	100 ft.^{2}
Games Area	10% of waiting area	400 ft.^{2}
	Subtotal	11,440 ft.^{2}

	Subtotal	11,440 ft.^{2}
Mechanical (20% of subtotal)		2,000 ft.^{2}
	Net Area	13,440 ft.^{2}
	N.A. + 30%	3,032 ft.^{2}
	Gross Area	16,472 ft.^{2}

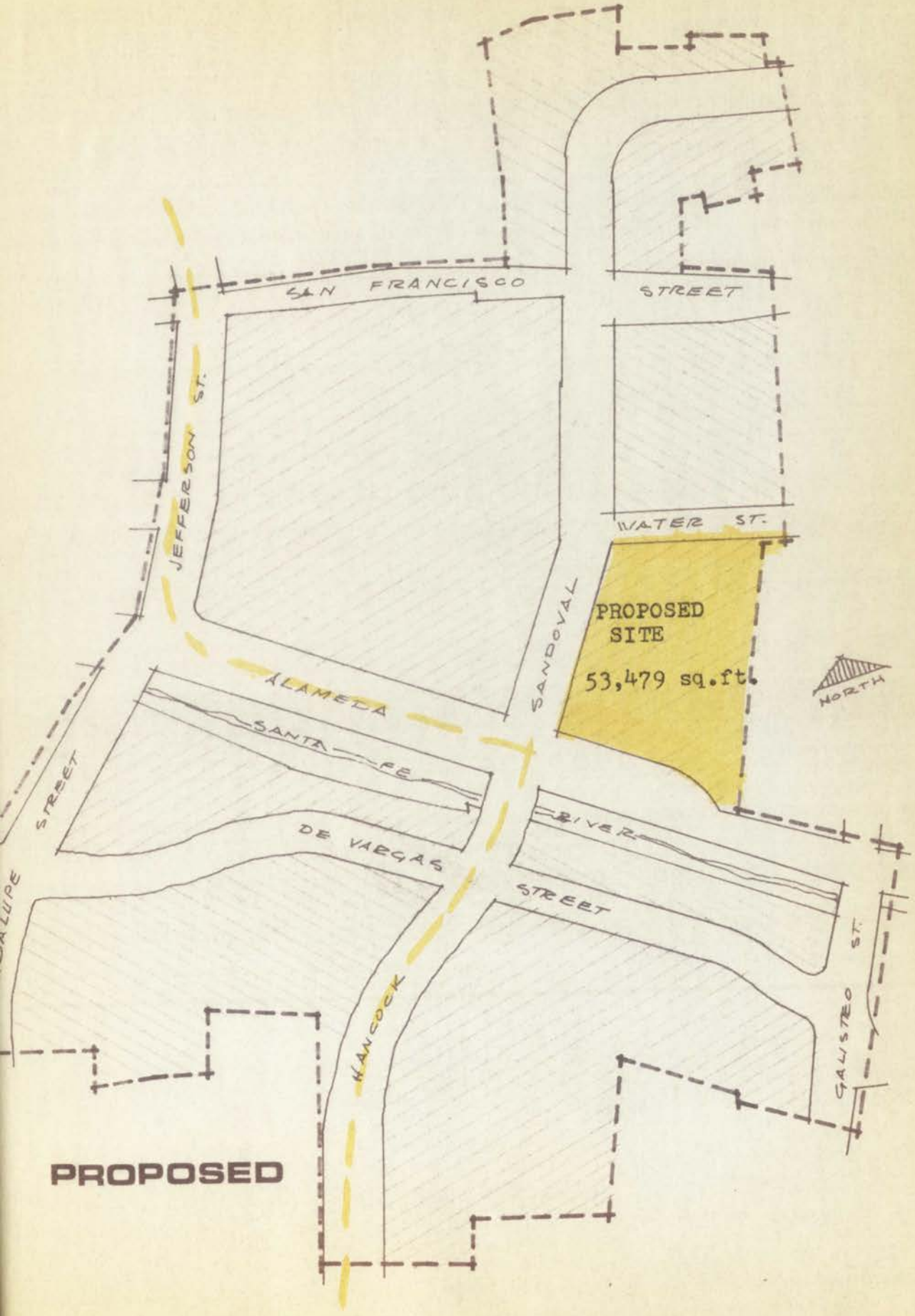
RELATIONSHIP DIAGRAMS:

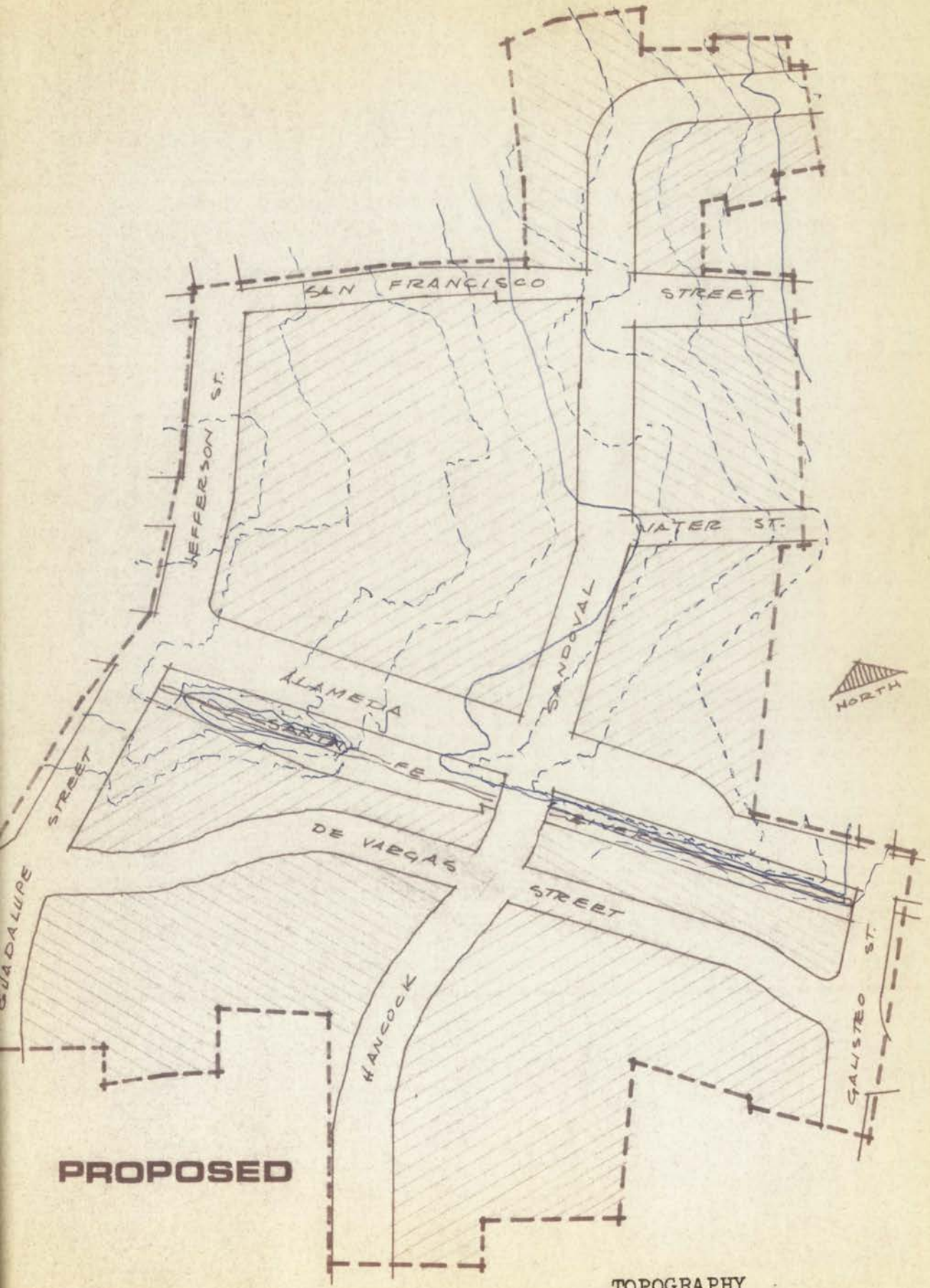



SITE
CORDOVA CENTER
SANTA FE CENTER
JR. HIGH SCHOOL
HIGH SCHOOL
ELEM. SCHOOL
VISTA DEL SOL
SANTA FE
NATIONAL
FOREST
GRANT
SANTA FE
SANTA FE COUNTY
NEW MEXICO
T 16, 17 N R 9, 10 E
POP 34,676 1980 CENSUS
PREPARED BY
THE CITY OF SANTA FE
ENGINEERING DEPARTMENT
IN COOPERATION WITH
U S DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

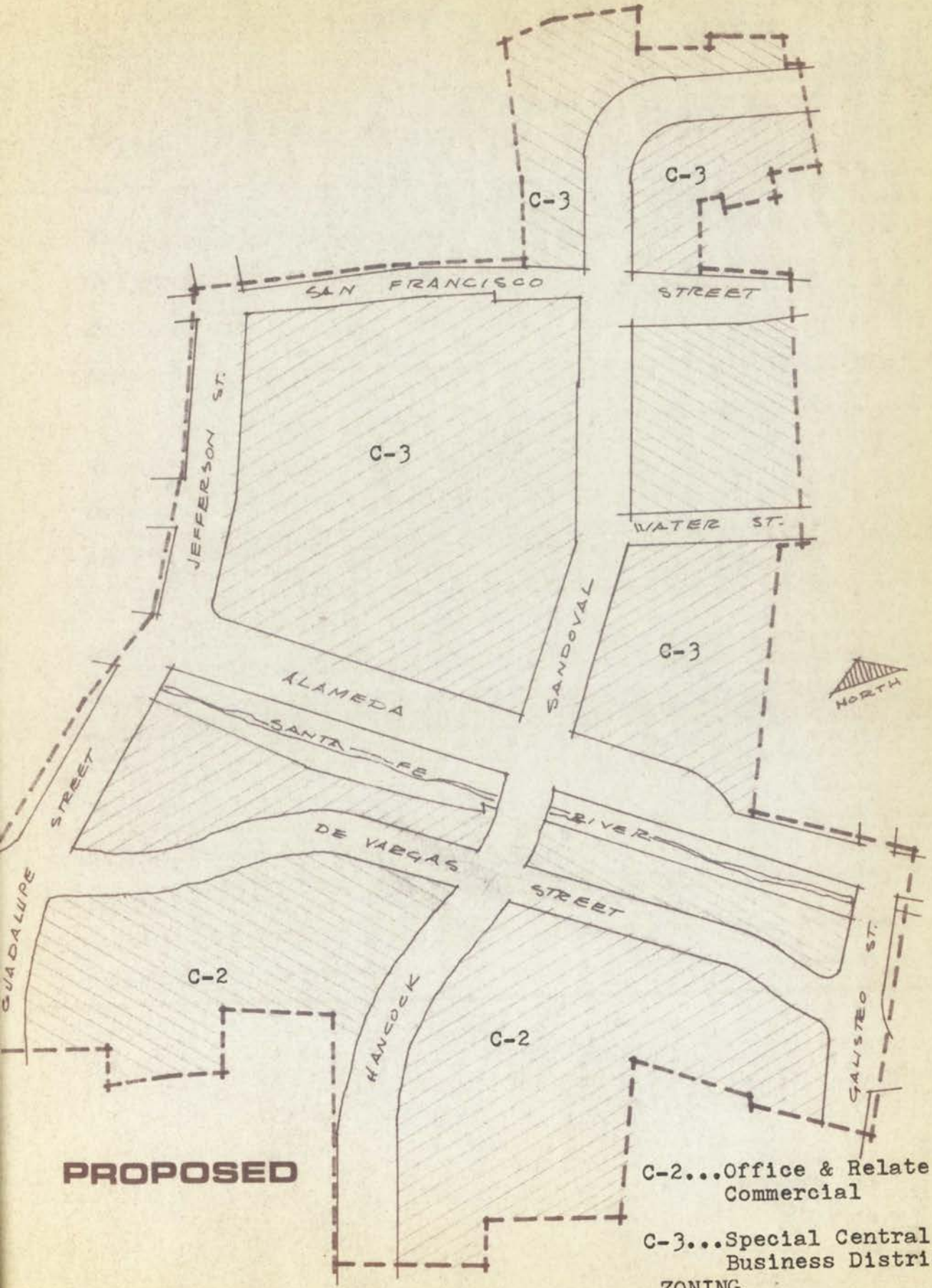

SAN FRANCISCO STREET
JEFFERSON STREET
SANDOVAL ST.
WATER STREET
NORTH
ALAMEDA
SANTA FE RIVER
AGUA FRIA STREET
DE VARGAS STREET
GUADALUPE
HANCOCK STREET
CALISTEO ST.

EXISTING


SAN FRANCISCO
STREET
JEFFERSON ST.
WATER ST.
PROPOSED
SITE
53,479 sq.ft.
SANDOVAL
ALAMEDA
SANTA FE
DE VARGAS
RIVER
STREET
HANCOCK
GALVESTEO ST.
NORTH
PROPOSED


SAN FRANCISCO STREET
JEFFERSON ST.
WATER ST.
SANDOVAL
ALAMEDA
SANTA FE
DE VARGAS
STREET
GUADALUPE STREET
HANCOCK
GALISTEO ST.
NORTH
PROPOSED

TOPOGRAPHY


C-3
C-3
SAN FRANCISCO
STREET
JEFFERSON ST.
C-3
WATER ST.
SANDOVAL
C-3
NORTH
ALAMEDA
SANTA FE
STREET
DE VARGAS
RIVER
STREET
GUADALUPE
C-2
HANCOCK
C-2
GALVESTON ST.
PROPOSED
C-2...Office & Related Commercial
C-3...Special Central Business District
ZONING

CLIMATOLOGY:

The Santa Fe climate has been characterized as having a large amount of sunshine and low humidity. There is no excessive heat, nor are winters sever. This is pointed up in the table below.

		Average Temperature	
		High	Low
Coldest month	January	41.0	19.3
Hottest month	July	84.3	56.7
Annual Average temp.	62.9	62.9	37.1

		Average Precipitation
Wettest month	August	2.27 In.
Dryest month	November	0.60 In.
Annual rainfall		13.76 In.

Annual average		
Days over 90 degrees	7	
Days between(killing frost 32°)	164	
Snow fall	31.7 in.	
Relative humidity	50%	
Hours of sunshine	32.81	(74% of possible)

Source of information: State Climatologist
New Mexico State University
Las Cruces, New Mexico

BIBLIOGRAPHY:

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Santa Fe Chamber of Commerce, La Fonda Hotel, Santa Fe, New Mexico 87501

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Correspondence, Mr. E. W. Hall, Coach Advertising Manager, Truck & Coach Division, General Motors Corporation, 660 South Boulevard East, Pontiac, Michigan 480533, Nov. 12, 1968

Correspondence, Mr. George H. Sisson, Vice-President, Marketing, Western Greyhound Lines, Division of Greyhound Lines, Inc., 371 Market Street, San Francisco, California 94106 Dec. 2, 1968

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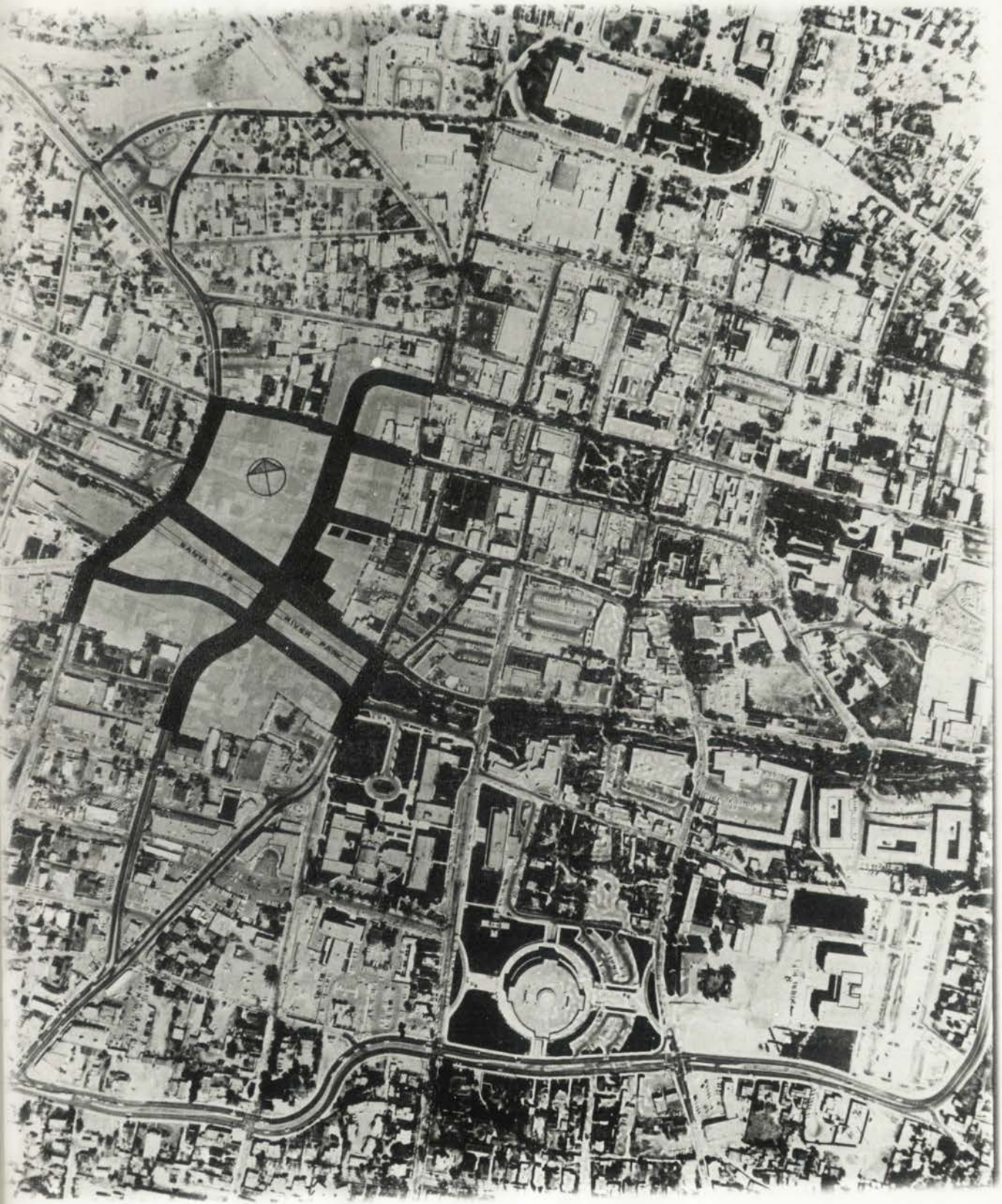
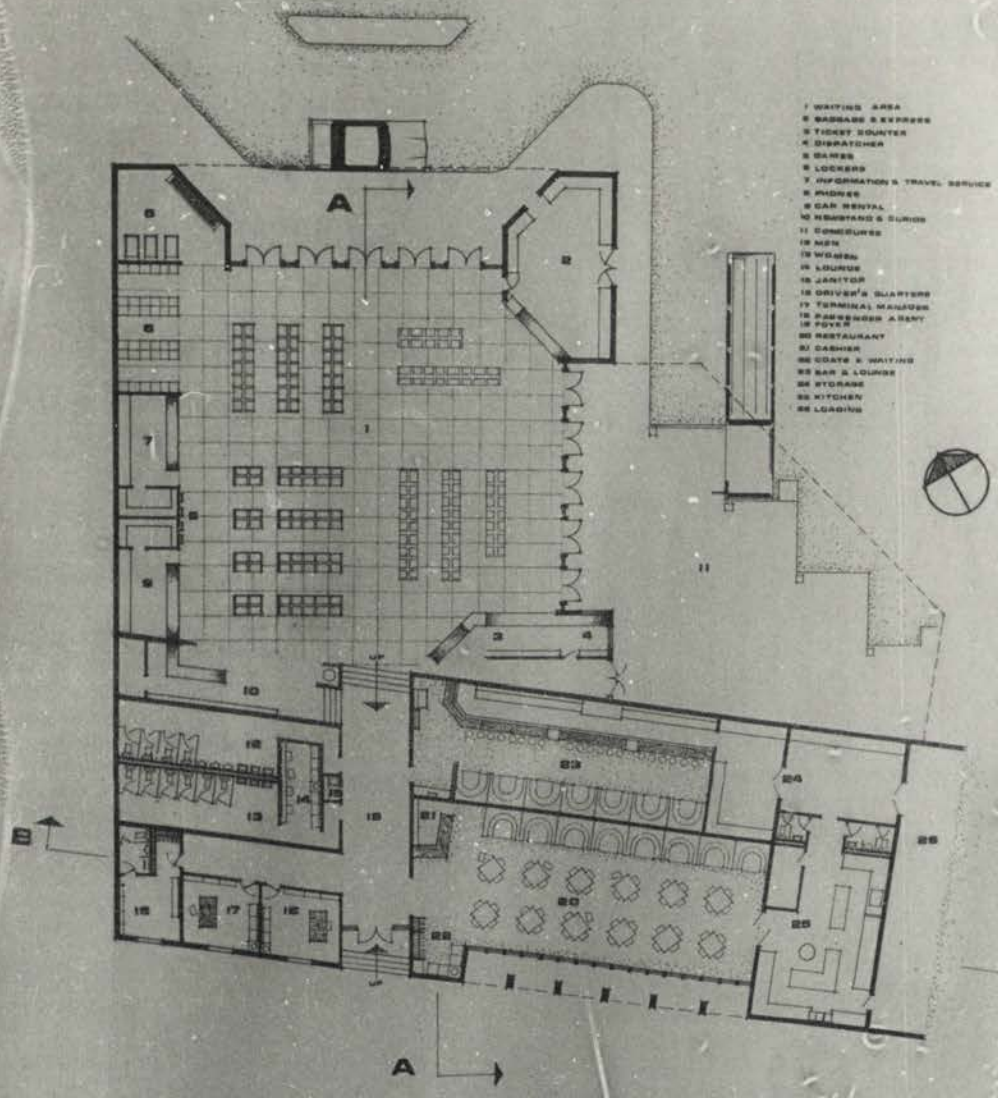
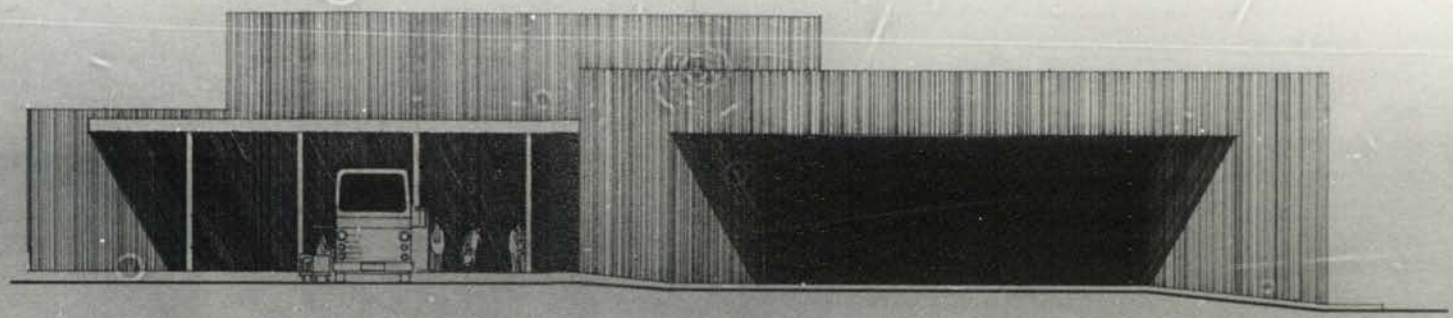
Time Saver Standards, Architectural Graphic Standards


SANTA FE
RIVER PARK

SITE 1:20



PLAN



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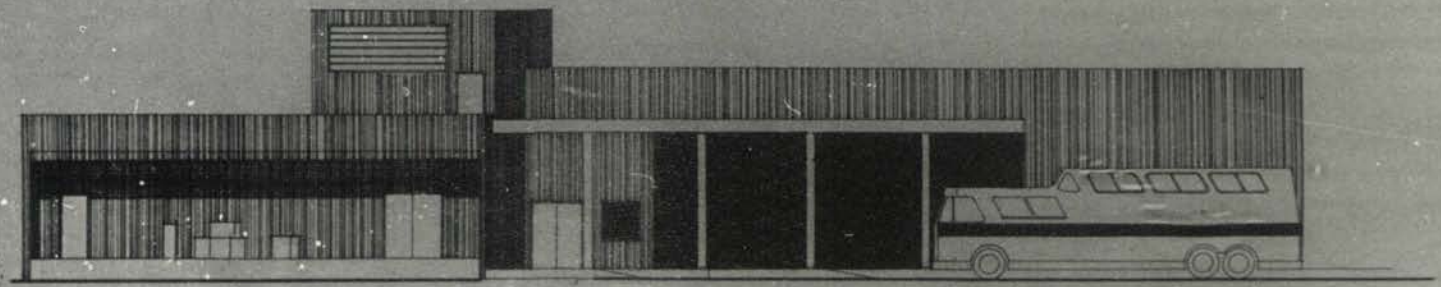
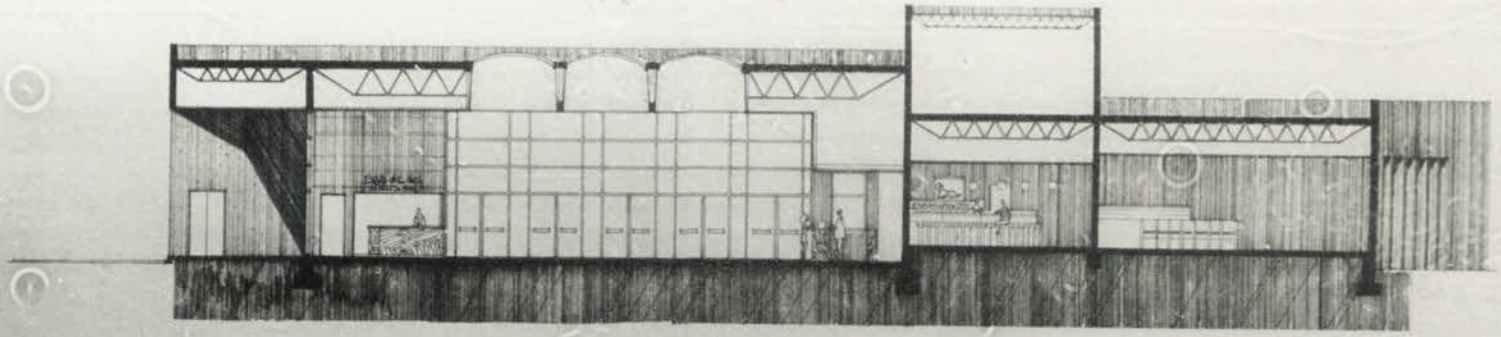
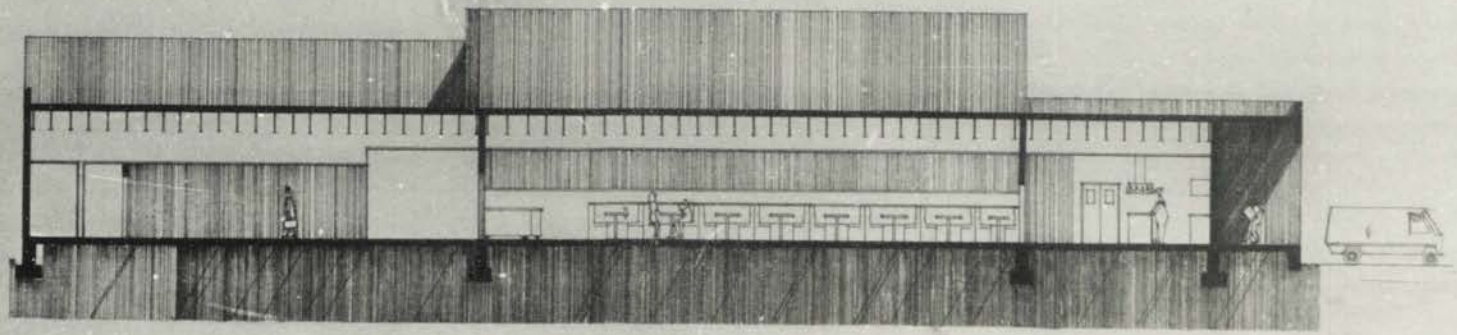


EAST

ELEVATIONS



A–A



B–B

SECTIONS


A BUS TERMINAL FACILITY
FOR SANTA FE, N.M.