

A DESIGN FEASIBILITY STUDY TO IDENTIFY
OPPORTUNITIES FOR REDEVELOPING MISSION SHOPPING CENTER

by

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A MASTER'S THESIS

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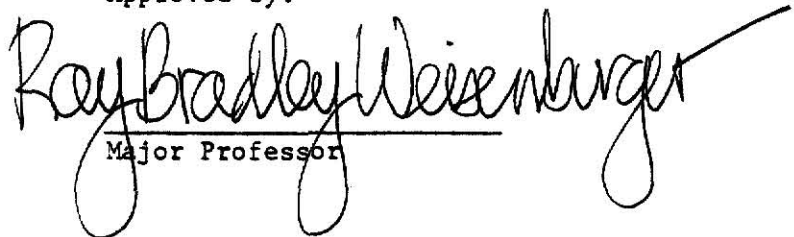
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CHAPTER I

INTRODUCTION

How can underutilized, out of date or bypassed shopping centers and their sites be adapted to meet contemporary needs?

How can valuable land in these centers used for surface parking or standing vacant be better utilized? These are two questions which this thesis will examine and attempt to answer.

At the present time, many older shopping centers which were built on small tracts of land, (considered large at the time of development), have lost their trade to newer and larger centers offering greater diversity, better selection, more amenities and environmentally controlled public spaces. Due to the development of these newer shopping centers many older suburban shopping centers have declined, or are presently declining. Typically the older centers contain one or two major stores with a collection of small shops. Sometimes a grocery store or large drug store is located in the complex. In the original design the center was surrounded by a sea of parking often without landscaping. Now, much of this parking land area stands vacant or little used.

It now appears that these lands have potential for redevelopment due to their location within urbanized areas and because each center is usually totally owned by one person or organization. In the continual redevelopment of cities it appears appropriate to develop some alternative uses for these underutilized shopping centers and sites which would be economically profitable to the owners and developers and meet contemporary needs of society.

Mission Shopping Center, located in Mission, Kansas, is one of the oldest shopping centers in that area, opened in 1953. In spite of the underutilized site of the center it still serves as the major activity node for the Mission Business district. Due to its prominence, a redevelopment of this shopping center could serve as the impetus for urban redevelopment in the Mission area improving the physical setting and perhaps, restoring the economic vitality to the area.

Using this Mission Shopping Center site as a case study, the purpose of this thesis is to:

- A. Identify the alternatives for using the site;
- B. Evaluate these alternatives briefly; and
- C. Select two alternatives and investigate their design feasibility by considering location, circulation, adequacy of utilities, relationship to adjacent land uses, and general "environmental fit".

A study of this sort should be approached in two ways: through economic studies of cost effective development and through a design investigation considering community values, (environmental fit). This study will focus on the latter.

CHAPTER II

SHOPPING CENTER REDEVELOPMENT

During the 1950's and 1960's, many small shopping centers were built in the United States; for instance, 49 shopping centers were in existence in 1949, 11,000 in 1968, and 15,000 at the end of 1972.

According to Shopping Center Directory, Metropolitan Kansas City, 1976, around 80 shopping centers were built prior to 1970 in the Kansas City area. Before 1950, there were several shopping centers in the area; for instance, the Country Club Plaza, built as a regional shopping center in 1924, is the oldest suburban shopping center in the Kansas City area, and 5 shopping centers were built between 1920 and 1940. Current shopping centers and their locations are shown in Figure 1.

In the Shopping Center Development Handbook, the Urban Land Institute defines shopping centers.

Neighborhood shopping centers have the smallest scale. Typically, the characteristics of neighborhood shopping centers are:

1. Leading tenants are supermarket or drug store;
2. Typical GLA(Gross Leasable Area) is 50,000sq.ft.; and
3. Minimum support people required are 2,500 to 40,000.

Community shopping centers are medium in scale. The characteristics of these centers are:

1. Leading tenants are variety, discount or junior department store;
2. Typical GLA is 150,000 sq.ft.; and
3. Minimum support people required are 40,000 to 150,000.

Regional shopping centers are large in scale, and provide a variety of goods. The characteristics of regional shopping centers are:

1. Leading tenants are one or more full-line department stores of at least 100,000 sq.ft. of GLA.
2. Typical GLA is 400,000 sq.ft.; and
3. Minimum support people required are 150,000 or more.¹

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Between 1940 and 1970, neighborhood shopping centers dominated the field. However, year by year shopping centers increased their functions and became larger. So much so that recently, regional shopping centers began to dominate the industry.

A. Declined Shopping Centers

At the present time, many shopping centers have lost their trade to the newer and larger shopping centers which offer greater diversity, better selection, more amenities and environmentally controlled public spaces. Due to the development of these newer shopping centers many older suburban shopping centers have declined, or are presently declining in importance. Most of their large parking land area stands vacant or little used. However, this land is still valuable due to its location within a prosperous suburban area. An appropriate action in the continual redevelopment of cities would be to develop alternative uses for these underutilized shopping centers and sites which would be economically profitable to the owners and developers and meet contemporary needs.

B. Redevelopment Alternatives

There are many ways or ideas to redevelop, or improve these older shopping centers. Among them are proposals for minor changes, for major changes, and for a completely new idea for the site. This section will discuss these alternatives briefly.

1. Minor Changes

These involve minor changes or redesigns of existing conditions, including restoring facades and facilities, redesigning landscaping, and perhaps changing shop selection, while maintaining the function and size of the current facility. These changes would be least expensive restoring the existing facilities, but still they would not adequately utilize the sites.

2. Major Changes

These involve providing more facilities and functions on the sites. Many variations to adding facilities for the sites serve commercial, business, residential, or other functions. These better utilize the sites than minor change schemes. However, they generally are more expensive.

3. Complete New Development

This involves providing entirely new facilities on the site, creating totally new functions and environments. Such a scheme could include some of the following functions: business, residential, recreational, and/or other non commercial functions. This could utilize the site more efficiently than the other plans by utilizing the site more ideally without limitations of existing conditions. Also, such a scheme could provide more integrated facilities. However, this is a more expensive redevelopment.

4. Mixed-Use Development (A Specific New Idea)

Another alternative scheme would be to redevelop the site as a mixed-use development. This would provide multi-functions within an integrated complex on the site. This concept is completely different from single-purpose developments. This Mixed-Use concept will be discussed in the following chapter.

With appropriate action and using these alternatives, the underutilized shopping centers could improve. For the Mission Shopping Center site, a mixed-use development could be one way to meet the contemporary needs of the community based on the location and role of the center in the community in terms of environmental fit.

CHAPTER III

MIXED-USE DEVELOPMENT CASE STUDIES

The ULI(The Urban Land Institute) report Mixed-Use Development: New Ways of Land Use describes many successful mixed-use developments. These developments have been shown to provide many benefits to the communities in terms of taxes and profits as well as of environmental fit. Some examples of completed mixed-use developments are:

A. Kalamazoo Center

This center in Kalamazoo, Michigan, opened in April 1975. This complex has a single 362,000-square foot structure, and multi-functions such as residential units, office space, retail space, transient facilities, parking spaces, and other components.

The mixed-use approach in downtown Kalamazoo- a medium size metropolitan area-presented the opportunity to combine modest increments of several complementary uses in an area where a comparably-scaled single purpose project would have likely been inappropriate from both market and financial viewpoints.²

Further, the project's smaller scale, relatively short two-year development period, and architectural and design concept, provide guidelines for similar initiative in larger and smaller urban area alike.³

The ULI report, also, describes the economic benefits of this project as:

Kalamazoo Center promises to be a major economic stimulus to the local economy and downtown area. Annual tax revenues from ISDC's,(Inland Steel Development Corporation), portion of the project are expected to be about \$250,000 above 1972 collections from the site, which were approximately \$50,000. The expected pay roll income of the center is estimated at

\$2 million per year, while hotel guest expenditures will amount to approximately \$4 million annually, over 300 new jobs will be provided in the project.⁴

B. Marina City-Chicago

The 3.2 acre site of the Marina City project is located in the heart of downtown Chicago. This complex has 1.6 million square feet of built area which opened in 1963. This complex involves the following functions: residential units, office space, retail space, parking space, and recreational facilities.

Comparisons between Marina City and other single-use developments indicate that development and operating-cost saving on the order of 10 percent have been realized here, according to developers.⁵

C. Westmount Square-Montreal

This development has a 4.5 acre site in downtown Montreal, Quebec. The complex was completed in 1977 and contains the following functions: residential units, office space, parking facilities, and a theater. The developer of this project, commenting on mixed-use developments, said:

The scale of MXDs, (Mixed-Use Developments), is a crucial factor in assuring appropriate control of the on-site environment and generating a sufficient level of activity to realize market synergy among various project components.

Residential uses are one of, if not the, most important component in MXDs. Without on-site residents, the project will likely have a 9-to-5 activity cycle, and key market relationships and image available in mixed-use developments will be lost. Residential uses are especially important in MXDs where the objective is renewal of a central city.

Perhaps the most important overall consideration in MXDs is design-architecture, physical and functional integration among buildings and uses, circulation, and relationship with adjacent land uses are crucial design features that must be carefully treated. Superior design is substantially rewarded in MXDs and, due to intricate relationship, haphazard design can penalize the project into failure.⁶

Further, ULI commented that:

Rent for all component uses in Westmount Square average about 15 to 25

percent above rates in comparable Montreal single-use developments. Mondev's, (the developer), experience indicate that financial return in Mixed-Use projects is normally above the single-use developments they have undertaken.⁷

Also, overall construction cost savings in this project are indicated to be 10 percent higher than in a single-use development of comparable size and quality.

In Westmount Square, economies of scale result from a single infrastructure to accomodate all uses; a central utility system; and a single parking facility serving overlapping users.⁸

Mixed-use developments would have more potential for profits than single-purpose developments. These will be discussed in the following chapter.

CHAPTER IV

MIXED-USE DEVELOPMENT

The concept of mixed-use is not new. The ancient Greek Agora, the medieval market square, and the mix of residential and commercial use in many 19th century European cities are examples.

The recent revolution of mixed-use developments began in the 1950's. To begin with, the strip and regional shopping centers emerged in response to the automobile. After that, collecting multiple shopping opportunities under one roof emerged due to suburban growth and current marketing opportunities. The next step was to involve office and residential spaces within these complexes, thus bringing work and living closer to the commercial area. This may be seen as a reunification of the various aspects of daily life.

Initially, mixed-use developments were confined to larger metropolitan areas, but these developments are spreading on a smaller scale to medium and small-sized cities.

What is mixed-use development? The ULI report on Mixed-Use Developments classified it as having

1. Three or more significant revenue-producing uses (such as, retail, office, residential, hotel/motel, and recreation-which in well-planned projects are mutually supporting);
2. Significant functional and physical integration of project components (and thus a highly intensive use of land), including uninterrupted pedestrian connections; and
3. Development in conformance with a coherent plan (which frequently stipulate the type and scale of uses, permitted densities, and related items).⁹

One of the primary concerns of mixed-use developments is the potential for profit. As the ULI report points out, the profit which mixed-use developments frequently offer is higher than the financial returns of conventional forms of development because of the economics that can be obtained by building on a large scale. This is primary because of the integration of functions, stronger demand, and higher rent than single-purpose development. Other benefits of this type of development are the stimulation of commercial redevelopment and the attraction or holding of middle-income residents in town, thus stemming the flight to the exurbs.

Normally, shopping centers do not create purchasing power in an area. However, integrated multi-use shopping centers do and thus should be encouraged where additional business and service establishments are required or wanted.

However, mixed-use development may have secondary reactions such as creating heavy traffic due to its high density and providing a different environment from existing conditions due to its scale and functions. These secondary reactions must be given as much consideration as the profit advantage.

CHAPTER V

MISSION SHOPPING CENTER

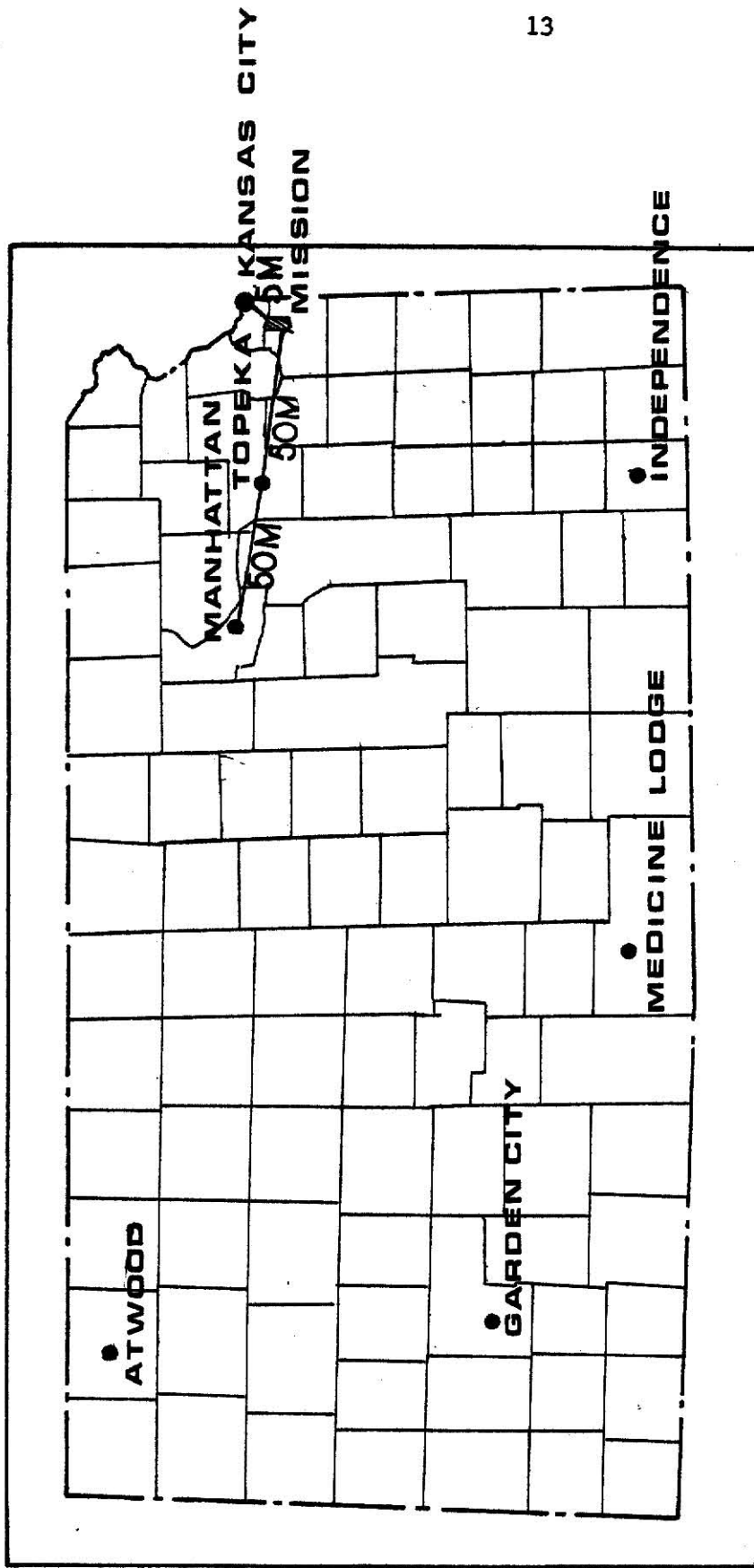
A. The City of Mission

The city of Mission is in Johnson County on the eastern edge of Kansas, bordering the state of Missouri. Mission is immediately south of Kansas City, Kansas, and is a part of the metropolitan area, (Figure 2).

Initially, Mission was established as a western trail town in the 1820's. Now, Mission is a low-density single family town with increasing numbers of medium density apartments.

The west side of Mission is being developed for office building and light industry. The development of the west side of the city, causes many workers to come to the city because of job opportunities. The commercial district along Johnson Drive occupies as much or more land than a fully integrated shopping center offering the same goods and services. However, other, better integrated commercial facilities in the other areas compete with the commercial district of Mission, thus drawing revenue away from Mission. Due to this increasing competition from bright, new outlying shopping centers in the trade area, the need exists to upgrade and expand the facilities in the area. As the 1968 report by Howard, Needles, Tammen & Bergendoff pointed out:

Projected future commercial lands are predicted on the assumption that the Johnson Drive market center will be upgraded to a degree that will strengthen the center's position in its normal market area.¹⁰



Location Map 1

Figure-2

Also, the report pointed out many suggestions which could be useful at the present time. These suggestions were

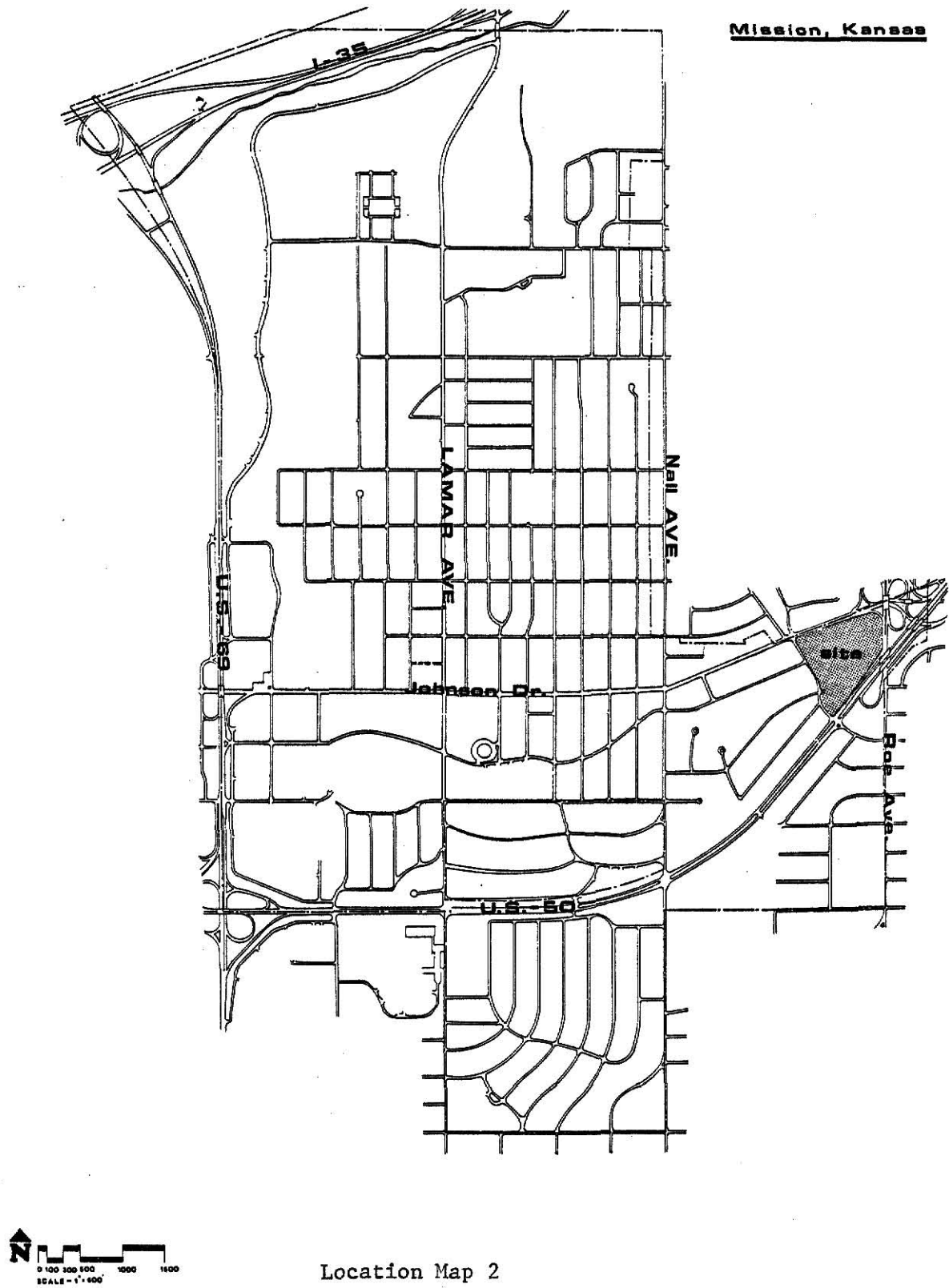
1. Few people will deny the desirability of implementing the proposed revitalization and redevelopment plan in order to improve the city.
2. New integrated shopping centers should be encouraged where additional business and service establishments are required to serve new or intensified residential developments.
3. The problems of downtown Mission are neither new or unique to it alone.
4. The problem is the increasing competition from bright, new outlying shopping centers.
5. Additional commercial lands are targeted for neighborhood convenience centers or the development of office districts. Though not large in proportion to the population, the target commercial base will play an important role in the future prosperity of the community, as well as in making a major contribution to its tax base.
6. If the city of Mission can continue to strengthen its tax base through addition of commercial, industrial, and multi-family developments then it will be in an excellent position to make physical improvements much more rapidly.¹¹

With these problems it seems as if a new urban redevelopment scheme would be one way to improve the Mission Business district.

B. Mission Shopping Center

The current Mission Shopping Center is one of the oldest shopping centers in the Kansas City metropolitan area, opening in 1953. Mission Shopping Center is situated at the intersection of US Highway 50, Johnson Drive and Roe Avenue. Along Johnson Drive, there is a strip commercial district in which Mission Shopping Center is located, (Figure 3).

The shopping Center's site is a 4 acre area. Approximately, four-fifths of the site is used for a parking lot. The existing buildings are setback from Johnson Drive, thus, they do not visibly stand out in the commercial strip. Compared to newer and larger shopping centers in the surrounding area, visual characteristics, such as the facades, are less attractive.



Thus, because of its location and underutilized land and because it is owned by one organization, the Mission Shopping Center site appears to have potential for redevelopment. A development of this shopping center could play an important role in the community, and could be profitable to the owner and developers. So, considering the existing conditions of Mission Shopping Center and the city of Mission, a mixed-use development scheme could improve the site and may fulfill the contemporary needs of the community and could offer potential for the owner and developer.

The following chapter will comment on the existing physical conditions for the new scheme on the Mission Shopping Center site and on the design program.

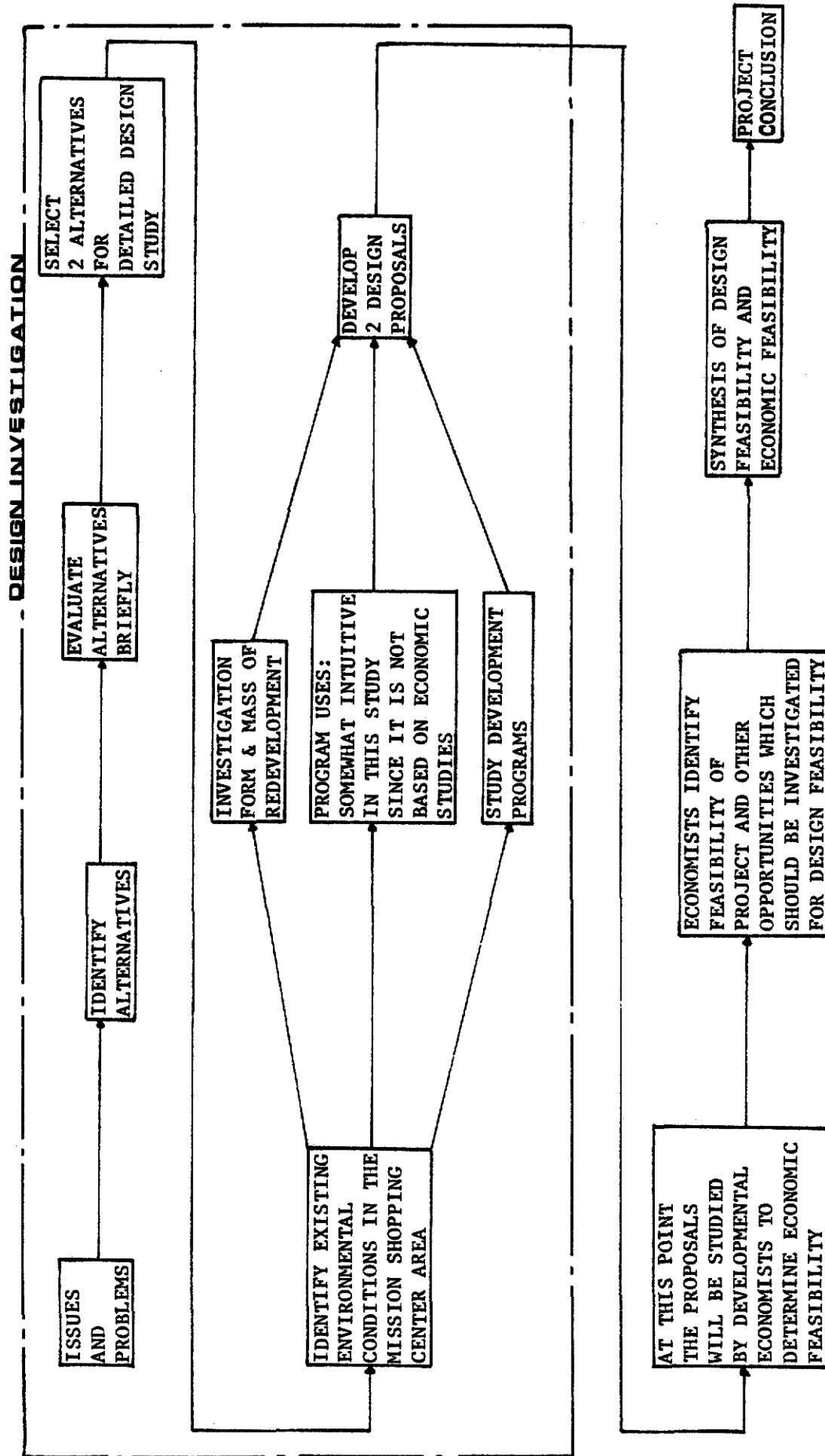
CHAPTER VI

COST EFFECTIVE DEVELOPMENTS

There are two steps to approach this study; one is a cost effective development through economic studies, the other is through design investigations. However, as previously noted, this thesis will not deal with economic feasibility beyond the intuitive level but will focus on the investigation of the design feasibility of the redevelopment of Mission Shopping Center. This study will be limited to the evaluation of the various potential use changes in relation to existing land use and activity patterns in the Mission Business district. A feasible design which is based on the evaluation, will show an appropriate scheme for the site. Also, it will attempt to show, through the presentation of various site redevelopment schemes, the visual and aesthetic implication of a redevelopment of Mission Shopping Center.

The design feasibility approach focusing on an appropriate "environmental fit" and its relationship to economic feasibility is shown in Figure 4.

THE METHODOLOGY OF THE MISSION SHOPPING CENTER REDEVELOPMENT



FEEDBACK AT ALL LEVELS

Figure 4

CHAPTER VII

PLANNING OF MISSION SHOPPING CENTER REDEVELOPMENT

This chapter will comment on the existing physical conditions of the Mission Shopping Center site and surrounding areas, and on design programs for the new design scheme, a mixed-use project. Through studying the existing physical conditions on the site and surrounding areas, design programs will be developed for the new scheme on the site.

A. Site Analysis

The purpose of this study is to know and recognize the relationships between the site and the surrounding physical conditions, and relate them to the planning and design of the redevelopment scheme for the Mission Shopping Center site.

1. Soil Analysis

Each soil type consists of one or more major soils and some minor soils, but the name of the soil is derived from the major soil.

The soil conditions are different from place to place in slope, depth, stoniness, drainage, or other characteristics. The site of Mission Shopping Center consists of two dominant kinds of soil, Sharpsburg and Urban Land. The complicated mix of this soil does not show clearly on a map. This site is made up of areas of Urban Land, deep, moderately sloping, and moderately well drained soils.

This soil contains 40 to 50 percent Sharpsburg soil and from 30 to 40 percent Urban Land. It is composed of a moderately fine textured surface layer for vegetation. However, this makes severe limitations for engineering uses. According to Soil Survey of Johnson County, Kansas,

Using properly designed and reinforced foundations, installing foundation drains, and backfilling with sand or gravel reduce structural damage caused by high shrink-swell potential. Low strength and high shrink-swell potential are severe limitations for local roads and streets. These limitations can be reduced by strengthening or replacing the base materials.¹²(Table 1, 2)

2. Vegetation

On the site, there is relatively little vegetation which concentrates on the surrounding area of the stream. According to the soil analysis, the following list shows what type of plant materials would be suited for the site. Trees well adapted to the soils are black oak, black walnut, white oak, hackberry and green ash.

3. Flood Plain

According to Flood Plain Information Blue River Tributaries, Johnson County, Kansas,

Normally, a 'flood' is considered as any temporary rise in stream flow or stage, but not the ponding of surface water, that results in significant adverse effects in the vicinity. Adverse effects may include damages from overflow of land areas, temporary backwater effects in sewer and local drainage channels, creation of unsanitary conditions or other unfavorable situation by deposition of materials in stream channels during flood recessions, rise of ground water coincident with increased streamflow, and other problems.¹³

In the city of Mission the flood plain is located in the center part of the city, along Johnson Drive, (Figure 5). The flood plain takes up a relatively small portion of the city. Meanwhile, Mission Shopping Center has a flood plain on the site, but it is very small. Mission Shopping Center has had damage from floods in the past. The future

TABLE 1

BUILDING SITE DEVELOPMENT

SOIL NAME	SHALLOW EXCAVATIONS	DWELLINGS WITHOUT BASEMENTS	DWELLINGS WITH BASEMENTS	SMALL COMMERCIAL BUILDINGS	LOCAL ROADS AND STREETS
SHARPSBURG- URBAN LAND COMPLEX	Slight	Severe: Shrink-swell	Severe : Shrink-swell	Severe : Shrink-swell	Severe: Shrink-swell, Low strength.

TABLE 2

CONSTRUCTION MATERIALS

SOIL NAME	ROADFILL	SAND	GRAVEL	TOPSOIL
SHARPSBURG- URBAN LAND COMPLEX	Poor: Shrink-swell	Unsuited: Excess Fine	Unsuited: Excess Fines	Good

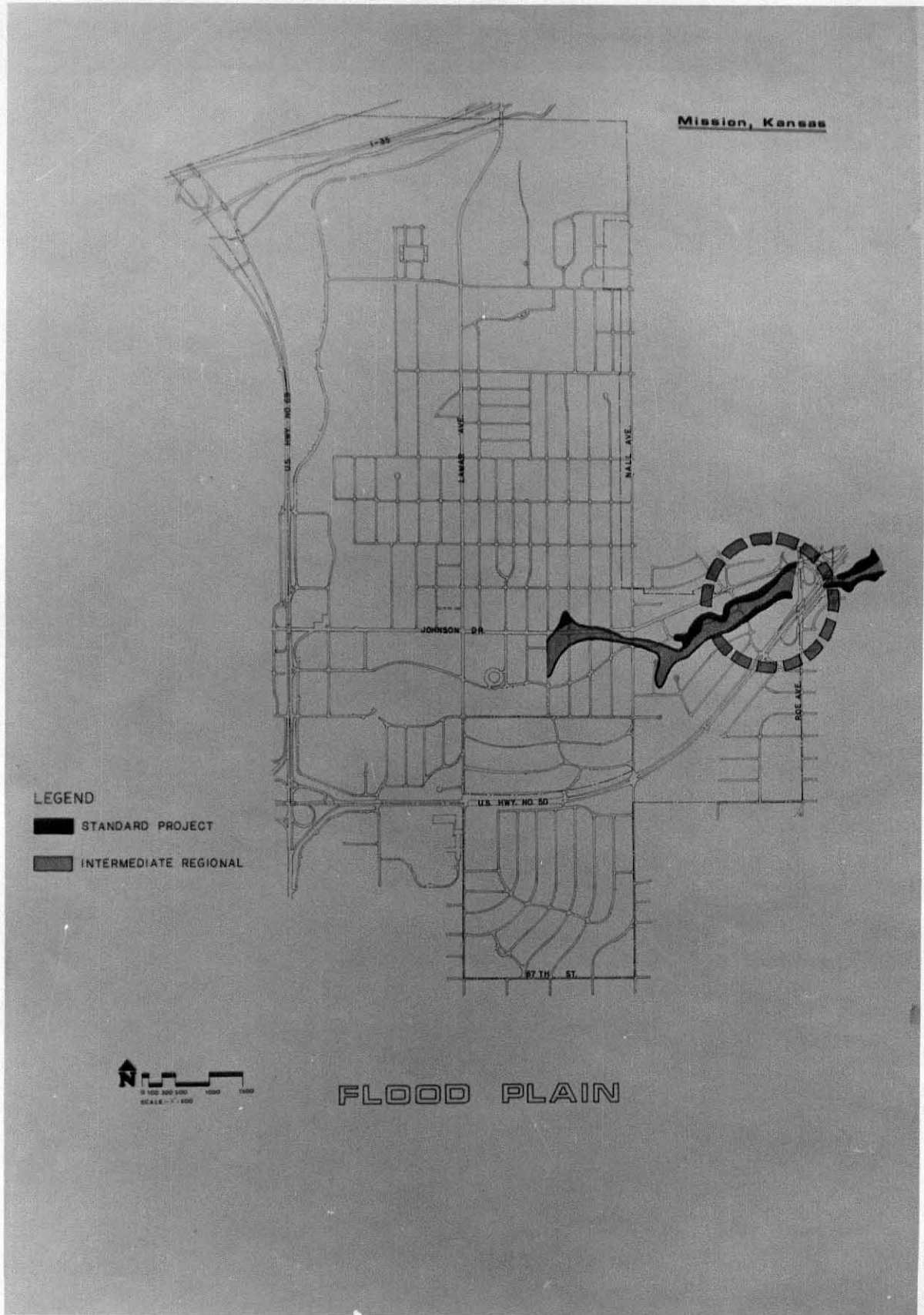


Figure 5

flood potential of Rock Creek and its tributaries is determined by engineering analysis, and some of the hazards of the great floods. Two possibilities are on the flood plain: the Intermediate Regional Flood, and the Standard Project Flood.

The Intermediate Regional Flood is defined as a flood that could occur the average of once in 100 years. This possibility is based on statistical analyses of streamflow records, rainfall and runoff characteristics.

The Standard Project Flood is a flood much greater than the Intermediate Regional Flood, but still within the realm of probability. The larger flood could someday occur and would be the most severe combination of meteorological and hydrological conditions in which the drainage basin is located. The design of flood control works takes such floods into consideration.

At Mission Shopping Center, the streambed is at 914.9 feet above sea level. The Intermediate Regional Flood crest is 920.6 feet.

This stream disappears underground after it gets to the site. According to the Flood Plain Information, "At the Mission Center, Rock Creek flow is directed through three 7x6 foot conduits under the complex, and continues to the east flowing under Roe Boulevard and Johnson

14
Drive." These conduits are located underneath the complex at from 908 to 910 feet above sea level. This creek has flooded quite often. The worst flood for the center was at September 14, 1977. This recent flood damaged the center. The small creek goes out of its banks periodically once or twice a year.

In conclusion, the flood plain on the site is a very severe problem

for the tenants, landowners, and people since floods have occurred quite often. So, it is necessary to consider how to design flood control works or to avoid flood damage. Furthermore, the conduits would provide some structural problems when a new complex is designed. So, when designing, careful considerations are needed when dealing with the flood plain and the creek.

4. Climate

Mission has a typical continental climate of land in the middle latitudes of the United States. The characteristics of climate have wide and annual variations in temperature, i.e., warm to hot summers, cold winters, moderate surface winds, maximum precipitation in the warm season, and frequent changes in the weather from day to day.

The cold weather in winter is caused by air from the polar regions, from December to February. The warm to hot summer lasts for about six months every year, and the temperatures in this season provide a growing season for crops. Spring and fall are relatively short.

The Gulf of Mexico is the principal source of moisture for the precipitation in Johnson County. An average of 71 percent of annual rainfall occurs during the growing season. Much of the precipitation in the warm season occurs as showers and thunder-showers at night or early in the morning. Heavy downpours occur at times and may cause severe erosion in cultivated fields. The annual range in temperature is fairly wide because heat is intense in summer, and arctic air occasionally brings the cold weather in winter. Climatic characteristics are shown on tables 3 through 7.

Surface winds are generally light to moderate in all seasons, with

TABLE 3HIGHEST TEMPERATURE

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ann.
Period 9 Years	71	76	84	89	95	102	114	104	103	94	78	69	114
Record 1963	72	81	92	96	101	106	114	111	107	94	84	72	114

TABLE 4LOWEST TEMPERATURE

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ann.
Period 10 years	-15	-10	-7	19	31	44	50	48	36	22	1	-5	-15
Record 1965	-26	-29	-7	19	22	30	45	44	30	15	-2	-12	-29

Degrees Fahrenheit

TABLE 5

MEAN NUMBER OF DAYS WITH PRECIPITATION

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ann.
0.10 7 Years	3	3	5	5	8	7	6	4	5	5	2	2	56
0.50 10 Years	1	1	1	3	3	3	4	2	2	2	1	1	24

≥ 0.1 or ≥ 0.5 inch

TABLE 6

TOTAL PRECIPITATION

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ann.
Period 10 Years	.81	1.52	2.22	3.34	4.40	4.49	5.64	3.15	3.38	3.14	1.14	1.04	34.27
Record Years	1.31 1971	1.42 1971	2.43 1971	3.43 1971	4.96 1971	4.86 1970	3.95 1972	4.18 1972	4.01 1971	2.65 1971	1.86 1971	1.43 1970	36.49
Normal	1.29	1.24	2.35	3.73	5.05	5.05	3.82	3.74	3.66	2.77	1.77	1.47	35.94

inches

TABLE 7

TOTAL SNOWFALL

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Ann.
Period 10 Years	5.3	3.6	7.5	1.1	0	0	0	0	0	0	1.5	3.5	22.5
Record 1959	4.4	4.7	4.4	.8	.1	0	0	0	0	.3	1.3	3.7	19.7

inches

prevailing wind from the south. Annual average wind is 10 miles per hour. Winds average about 12 miles per hour in March. Tornadoes occur occasionally in Johnson County, and are most frequent in spring and early summer. An average of 72 percent of possible sunshine is received in summer, and 53 percent is received in winter.

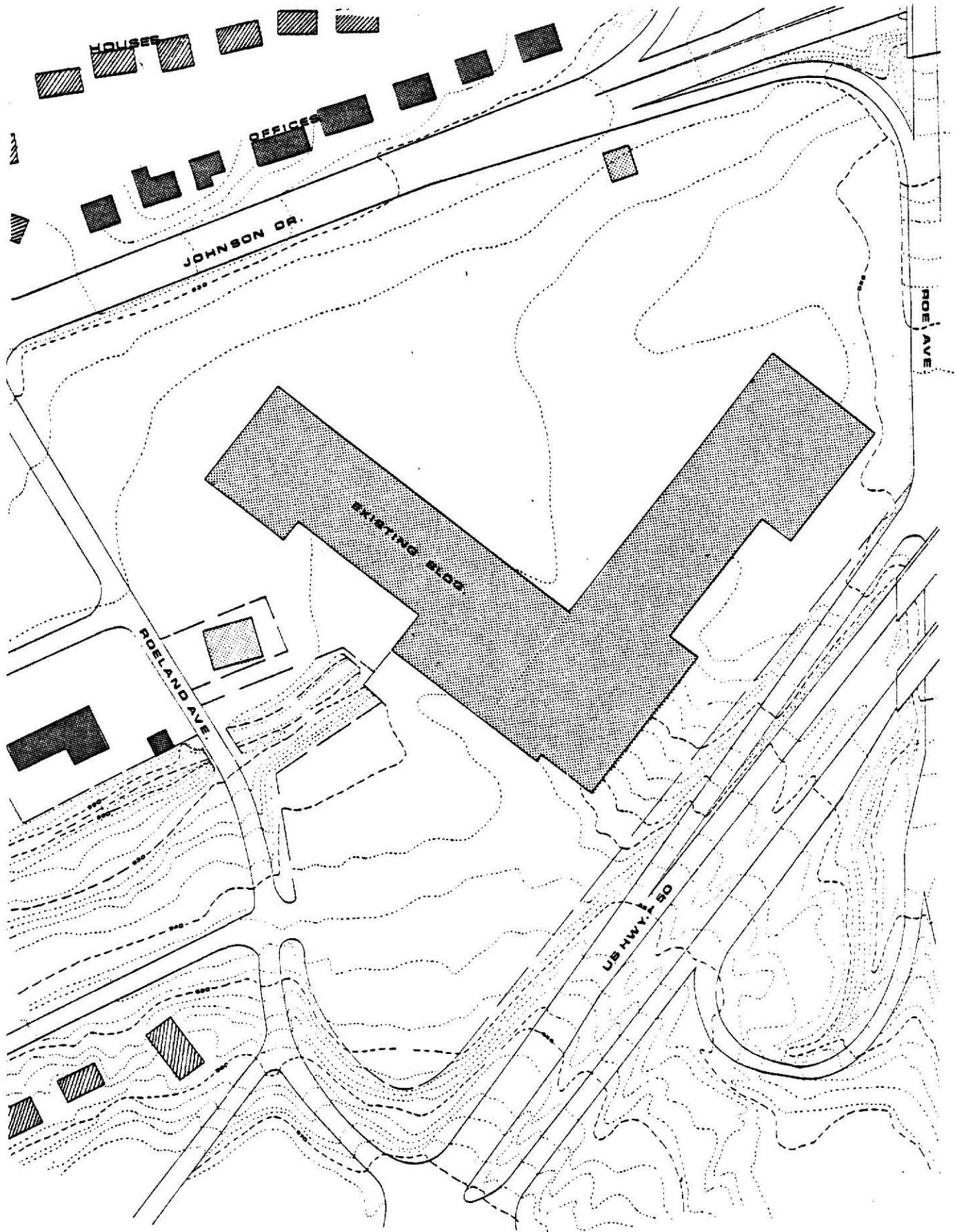
5. Existing Land Use

The Mission Shopping Center site borders four traffic throughfares, thus, limiting the natural extension of many proposals. These throughfares would influence a new design concept.

On the site, there are one big building complex and two small annex buildings which function as an auto center and an appliance shop. Existing buildings have been kept in good shape, but facades have gotten old and unattractive. The main building is setback from the main street and does not stand out visibly at the commercial strip. There are 19 retail store spaces in the complex, including a cafeteria, camera shop, drug store, shoe shop, etc., but one space is presently vacant. This complex features one big department store-Macy's. The Macy organization owns this complex and site. The site is shared by the large parking spaces surrounding the complex. The topography including Rock Creek which goes underground through conduits, and the flood plain zoning will significantly affect the future use of the site, (Figure 6).

6. Circulation

At present the city of Mission is served by many highway systems: interstate highways, I-35 and I-635; state highways, K-10 and K-158; and US highways, No. 50, 56, 69, 169. Mission is bounded on three



EXISTING SITE

Figure 6

sides by highways I-35, US-69 and 50. Therefore, Mission has good accessibility to the entire region and metropolitan area.

US-50 highway which borders Mission on the south, facilitates only east-west access into Johnson County.

US-69, known as Metcalf Avenue, which borders Mission in the west, connects I-35 and I-635. Moreover, the role of this throughfare route is crucial to the city of Mission as a major access route. Presently, along Metcalf Avenue, many strip developments have been built.

I-35 which borders Mission on the north connects Mission with Kansas City.

Primary arterials in Mission are Johnson Drive, Nall Avenue, Lamar Avenue, and Roe Avenue.

Johnson Drive is a major arterial which serves Mission as a principal east-west route. Along Johnson Drive, business districts and commercial districts are concentrated. One might say that Johnson Drive is the spine of Mission.

Nall Avenue connects northward to Johnson Drive. But, its more important function is as a collector north of Johnson Drive in Mission.

Lamar Avenue is a major arterial along the south-north route, connecting with I-35.

Roe Avenue borders the east side of Mission and connects northward to Johnson Drive. It also connects to US-50.

The site of Mission Shopping Center borders three major arterials, Johnson Drive, US-50, and Roe Avenue, and one secondary street, Roeland Drive.

The street system of the city is important for giving accessibility to

land and for movement of people and goods. This function affects land value and land use. Also, the traffic and transportation system should give safe, quick, and convenient circulation between residential, commercial, administrative, employment, and social and recreational areas.

In conclusion, since the location of Mission Shopping Center has good accessibility, the potentialities of its site should be utilized, (Figure 7).

7. Surrounding Neighborhood

For the purpose of this study, Mission Shopping Center can accomplish its potential by recognizing the relationship between the site and the surrounding neighborhood.

Mission Shopping Center is located along the east edge of Johnson Drive at the edge of the long commercial strip district. The surrounding areas are mostly composed of residential districts, usually of single family housing. In other words, low density areas surround the site. Physically, the site is separated from those residential areas by the major arterials.

Mission Shopping Center is a commercial district, surrounded by residential districts. Streets separate the site from the residential areas, (Figure 8, 8-1).

8. Land Use/Zoning

Most parts of Mission are residential areas, especially single family. Commercial areas are concentrated along Johnson Drive. On the west side of Mission, a variety of zones exist along Metcalf Avenue. In both of these areas developments have progressed recently. Zoning

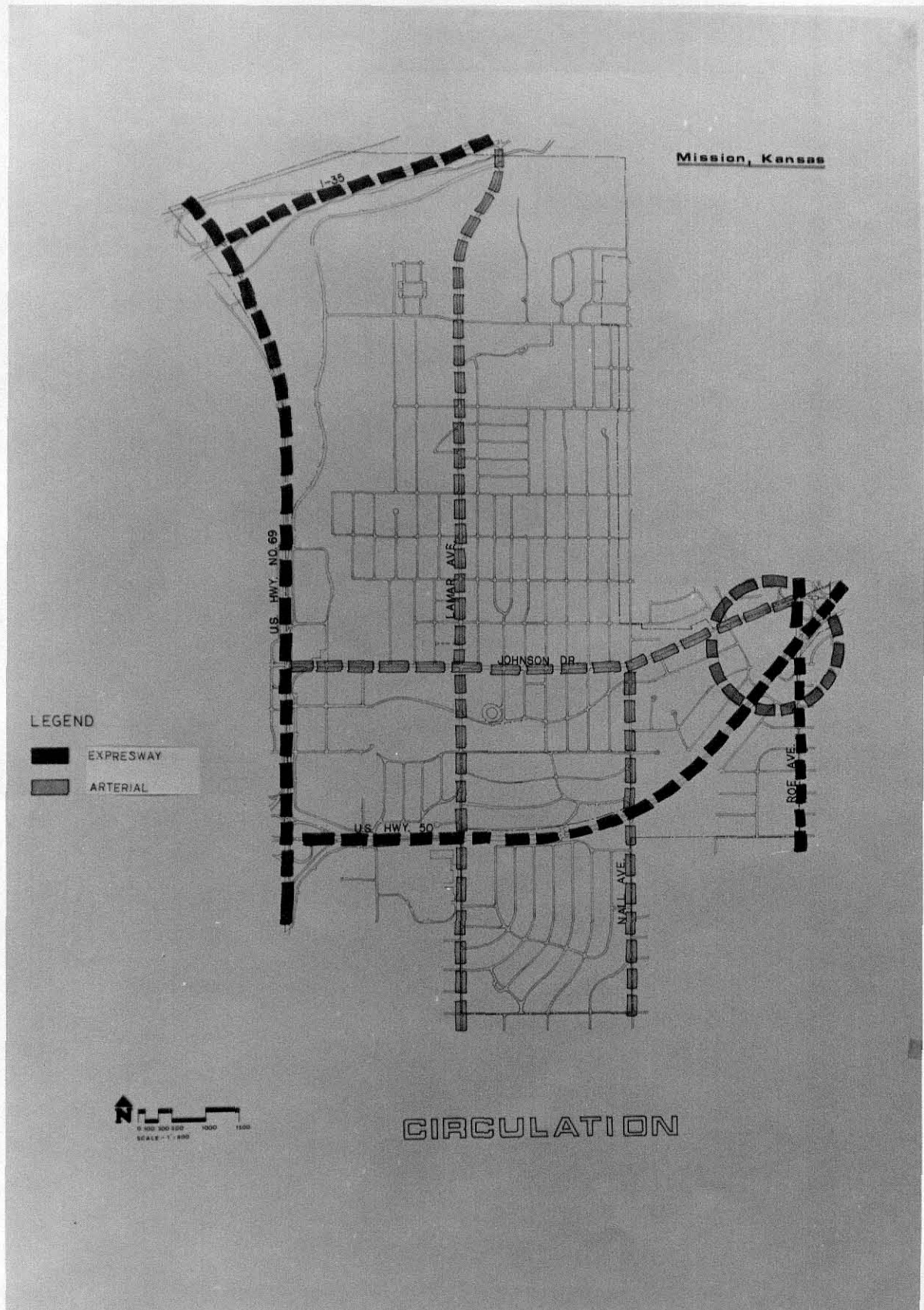
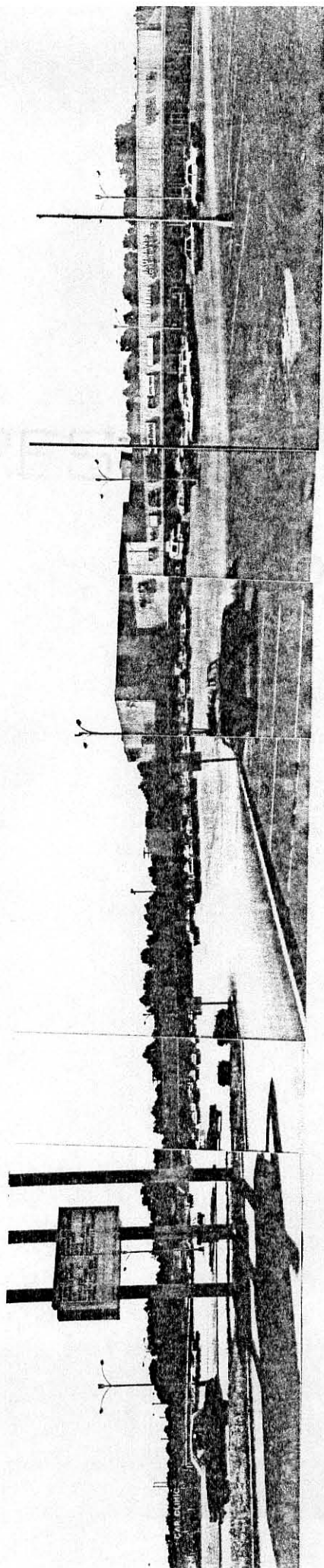
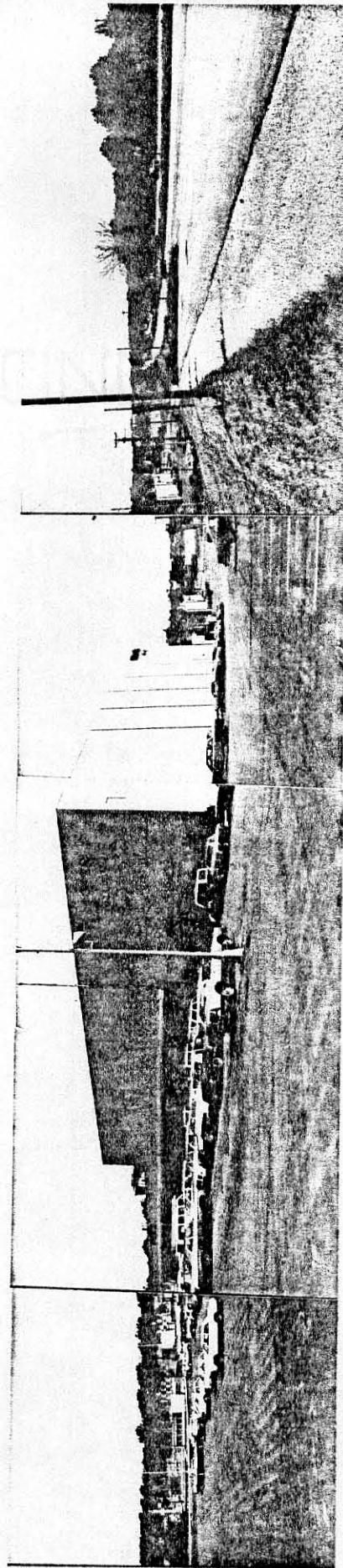


Figure 7

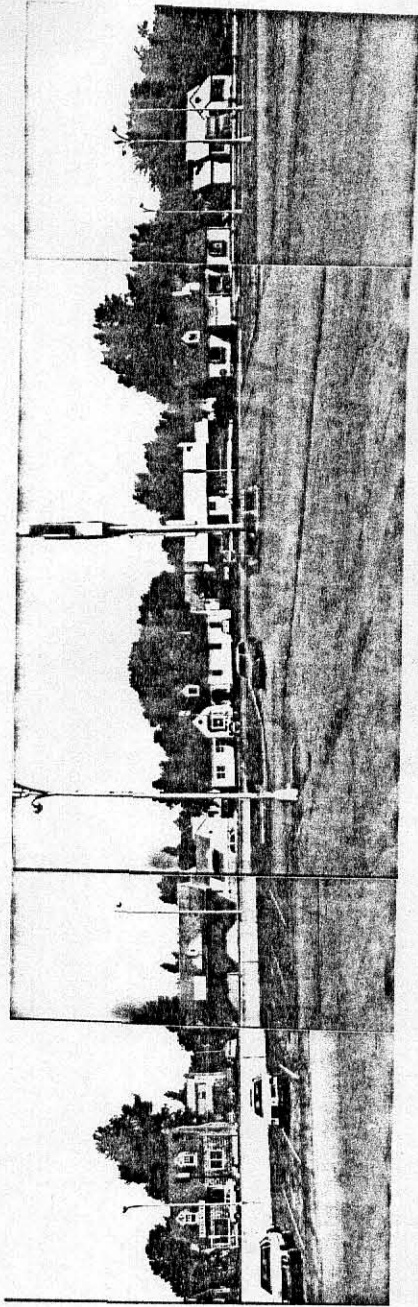


Existing Building-North

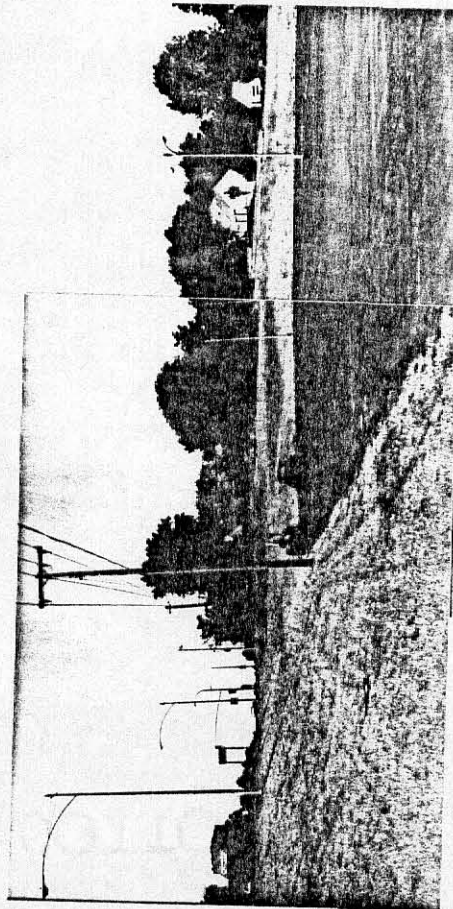


Existing Building-West

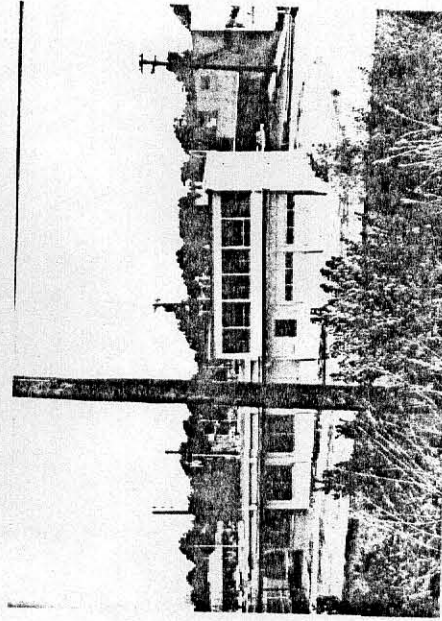
Figure 8



Surrounding Neighborhood-North Side



West Side



Annex Building

Figure 8-1

and land use areas near the shopping center have been changing.

Houses across Johnson Drive are now offices, (Figure 9).

9. Water/Sewage

According to Proposed for Land Use and Traffic, Mission, Kansas,

"According to officials of the water district there will be no problem in supplying water to future developments as it occurs."¹⁵ For future devel-

opments, supplying water will be crucial, but there will be no problem as this redevelopment occurs. Also, this report pointed out regarding the

sewer system: "It will take fairly intensive development within the proposed district to make the necessary improvements financially feasible."¹⁶

Storm and waste disposal systems are basically dependent upon gravity flow.

However, the city has already been preparing for sewage systems for the necessary improvement financially. So, in certain districts, there will be no problem for the future developments.

10. Parks/Open Space

At the present time, there are only a few places Mission where people can enjoy nature and recreate themselves through play and exercise in open space. For the community, active recreation facilities should be provided, such as ball fields, swimming pools, tennis courts, etc.

According to the report on Proposed Plan for Land Use & Traffic, Mission, Kansas, "There is a significant need for an open land where people can walk and stroll, enjoying nature or merely sit and look at land forms, or natural features."¹⁷

So, with the present lack of open spaces in Mission where people can enjoy and recreate themselves, it will be necessary to provide more open spaces and parks in schemes for future developments.

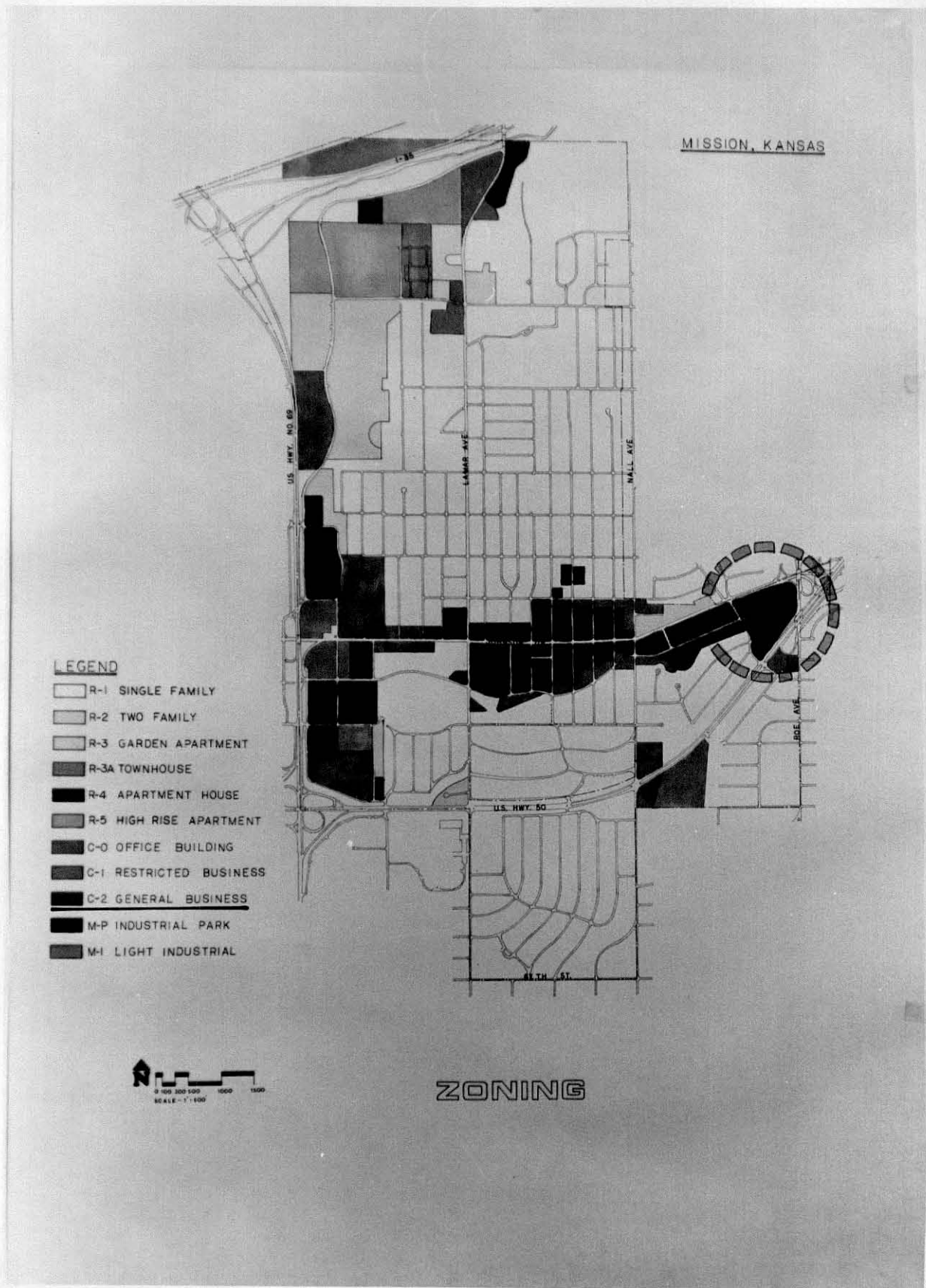


Figure 9

11. Population

According to recent data for Mission and Johnson County, the population of Mission increased year by year from 1970 till 1977, but more slowly than the population growth of Johnson County. Between 1960 and 1970, the population of Mission nearly doubled, but since then, the population growth has been slow.

TABLE 8

Year	1960	1970	1976	1977
Mission	4,626	8,376	8,966	9,195
Johnson County	143,792	217,662	243,938	250,947

Mission is a low-density area and mainly single family town with an increasing number of medium density apartments.

According to Proposed Plan for Land Use & Traffic, Mission, Kansas, report;

The existing and probable future trend toward development of single-family residential districts farther south and west in the metropolitan area. Future development of residential areas will probably be multi-family, low to medium density, in Mission.¹⁸

...Mission can anticipate a relatively slow rate of single-family expansion. This, of course, will give Mission the opportunity to keep ahead of service demands if projected commercial and industrial development materializes.¹⁹

So, in terms of the population growth of Mission, if some development scheme materialize, Mission would gain more population and become a medium density town.

B. Design Programs of Mission Shopping Center Redevelopment

The basic intention of this project is to provide a feasible design on the existing site and a relationship between the surrounding areas of the site and a new facility design. A feasible design based on evaluation of existing conditions and on activity patterns in the community and on the site, will show an appropriate scheme for the site. The chosen scheme, mixed-use development, should provide benefits for the landowner, and may fulfill the contemporary needs of the community.

Two alternative schemes will be presented. One is a major change for the site, and the other is a new idea based on possibilities for the site.

The first scheme is to add new facilities and functions on the existing building and on the site.

The other scheme is to provide a completely new facility for the site.

Both scheme will depend on a mixed-use development. The mixed-use complex will provide a variety of activities because it is convenient for people to live, work, shop, play and eat in one area. Also, this facility will draw people together because of the common facilities many people use. The complex will have multi-functions such as retail shops, office space, residential units, entertainment, and recreational facilities.

1. Proposal 1 is to utilize the existing buildings and conditions on the site. Since the main building is setback from a main street, it does not stand out visibly at the commercial strip. Also, it has less attractive facades than those of other newer and larger shopping centers. However, it seems that the building has been kept in good shape structurally. So, to draw people into the complex, this proposal includes design of an attractive facade and it proposes closing Johnson Drive with new facilities.

The concept of this proposal is to add a new facility on the existing large parking space and connected to the existing building. The design idea of this scheme is to provide another L-shape building to the existing L-shape building, then making a square shape. In the center of the square, a large plaza which has an artificial creek is designed. This scheme has two main entrances at the north side and west side. The entrance at north faces to Johnson Drive. The west side entrance faces to the creek and the T-junction of Roeland Avenue and Martway. So, the north side entrance will draw people from Johnson Drive and the west side entrance will draw people from Martway into the complex. The first floor of the complex has new retail shops and the existing retail shops, a plaza, parking, and also, half underground parking. These shops surround the plaza which has a man-made creek. Also, this plaza has a high void space from first floor to the skylight roof. The second floor of this complex has new retail shops, a playground, and the existing department store. These facilities, also, surround the void space. People can look down the plaza from their place. The third floor of this complex has new office spaces. These spaces face to the void space, and also, face to Johnson Drive. The new structured parking space is planned by surrounding new facilities. This parking structure has three stories and could provide a convenience to customers because of closeness to shops. As a whole this complex has an interesting interior space because multi-stories shops surround the man-made creek, and also, this complex has a visible and imageable shape. At the north-west side corner of the site above the flood plain, a

residential building will be planned attached to the existing building. At present, this corner is a large parking space. This corner, the highest point on the site, will provide a good view for the residents, and give them safety from floods.

This complex will provide a convenience to shop and work for the residents.

Table 9 summarizes this proposal.

Because of insufficient information of the existing buildings, this study will not deal with redesigning the main building. However, due to expanding new facilities, especially retail shops, and providing interior space in the complex, this scheme includes taking a part of the main building and two annex buildings, and some portions of the space would be changed to function for more parking and storage spaces. But, Macy's department store will be kept and utilized. The advantages of this scheme are to utilize the existing building and to be more economical than providing all new facilities.

2. Proposal 2 shows a completely new facility on the site, and will provide a different potential from that in the existing conditions. It will include multi-functions such as in retail shops, office space, entertainments, recreation facilities, and residential units. These functions will be integrated to one complex.

Table 10 summarizes this proposal.

The concept of this proposal is to create a new complex for the site. This design scheme has a consideration for visibility and imageability in terms of aesthetic shape and form.

The first floor of this complex has retail shops and parking. The

PROPOSAL 1

TABLE 9

New Additionally Commercial Building

STORY	B	1	2	3	TOTAL
COMMERCIAL		34,300 14,400GLA	62,700 39,000GLA		97,000SF 53,400GLA
OFFICE				37,000 25,000GLA	37,000SF 25,000GLA
PARKING	52,000	46,000			98,000SF
MISCELLANEOUS	1,900	700			2,600SF

260 Required
Parking Spaces

70 Required
Parking Spaces

330 Parking Spaces

GLA: Gross Leasable Area

GRAND TOTAL 234,600SF

New Additionally Residential Building

Story	B	1	2	3	4	5	6	7	TOTAL
Residential Units			10	10	10	10	10	6	56 UNITS 108,000SF
Parking	17,100	19,800							36,900SF 105 Parking Spaces
Miscellaneous									2,700SF

GRAND TOTAL 147,600SF

TABLE 10

PROPOSAL 2

STORY	1	2	3	4	5	6	7	8	9	TOTAL
OFFICE	27,000	51,600	7,200							85,800SF 63,000GLA
RESIDENTIAL UNITS				27,600 10	27,600 10	25,500 9	21,300 7	15,000 4	12,900 3	27,450SF 43 UNITS
PARKING	83,500	64,700	64,700							212,900SF 610 PARKING SPACES
HEALTH CLUB			12,000							12,000SF
TENNIS COURTS			2 COURTS							
RACKET-BALL COURTS			8 COURTS							
GYM.			23,400							23,400SF
MISCELLANEOUS	7.800									7,800SF

GRAND TOTAL 499,250SF

REQUIRED PARKING SPACES

COMMERCIAL 380 SPACES (5.5 LOTS/1,000SF RATIO)

OFFICE 80 SPACES

RESIDENTIAL 65 SPACES

HEALTHCLUB 85 SPACES

TOTAL: 610 REQUIRED PARKING SPACES

parking space surrounds these retail shops. The main entrance faces to Johnson Drive and has a distinct shape from other parts.

The second floor of this complex, also, has retail shops and parking.

In particular, Macy's department store is planned on this floor.

Another entrance is planned at the west side of this complex. This entrance is useful for fire-escape and people coming from the parking.

The third floor has some office space, a restaurant, and recreational facilities including tennis courts, racket-ball courts, a jogging track, a swimming pool, and a health gym. This would be used by office workers, residents and visitors. This facility is close to the restaurant, so, people can enjoy and use the facility during the day and at night. This area is a main attraction of the complex and a recreation center to the complex.

The fourth to ninth floor is used for residences.

A skylight covering the jogging track creates an interesting and imageable shape in the complex, and provides natural light into interior space to connect first floor to third floor.

The retail shops surround a void space, and customers walk around this space.

The advantages of this scheme are to re-utilize the site and to provide well integrated facilities and more efficient and well organized functions and spaces in the complex than those in the major change scheme. But, it could be more complex to build than the major change plan.

Of major concern in designing both schemes is visibility, imageability, aesthetic forms and human scale in interior spaces of their complexes.

Both schemes could fill these issues. However, Proposal 2 has more integrated spaces than those in Proposal 1. For instance, residences are well integrated to other functions in Proposal 2, and the existing building makes hard to be well-integrated to new facilities. Also, Proposal 2 has much more visibility than Proposal 1 because of its higher building shape.

But, both schemes could have some problems for circulation in the complex and traffic. In terms of circulation problem in parking space, both schemes need more consideration due to complicated orientations. Also, these complexes might create traffic problems because of increasing traffic.

In terms of environmental fit, human environments have their own existing conditions and characteristics such as existing land use, building scale, zoning, circulation and other physical characteristics. Considering these characteristics is important for the future developments.

At present, the Mission Shopping Center site is located in the business district at Mission. The site is surrounded by major arterials. At the opposite side of Johnson Drive, some offices which were once residences exist. Relatively, the site has big empty space in surrounding areas. Considering these existing characteristics both schemes will work for adjacent land uses due to their functions, scale and shape.

The adjacent land uses are mainly for retail shops, offices and residences. Both schemes have these functions. They just extend the existing single-use to multi-use. Both schemes have a larger scale than the scale of surroundings, so these complex could have more visibility than existing one. Also, as this site isolates from surroundings because of surrounding major arterials, there could be no problem regarding environmental fit. This mixed-use development could work in the community due to its uniqueness and work for the business district due to creating new purchasing power.

Finally, comparing two schemes, Proposal 2 will be recommended due to its more visible shape and integrated space and functions. Also, this proposal has more uniqueness because of the building shape and more variety of functions such as a health club. In the following chapter, the final products of both schemes will be shown.

CHAPTER VIII

PRESENTATIONS

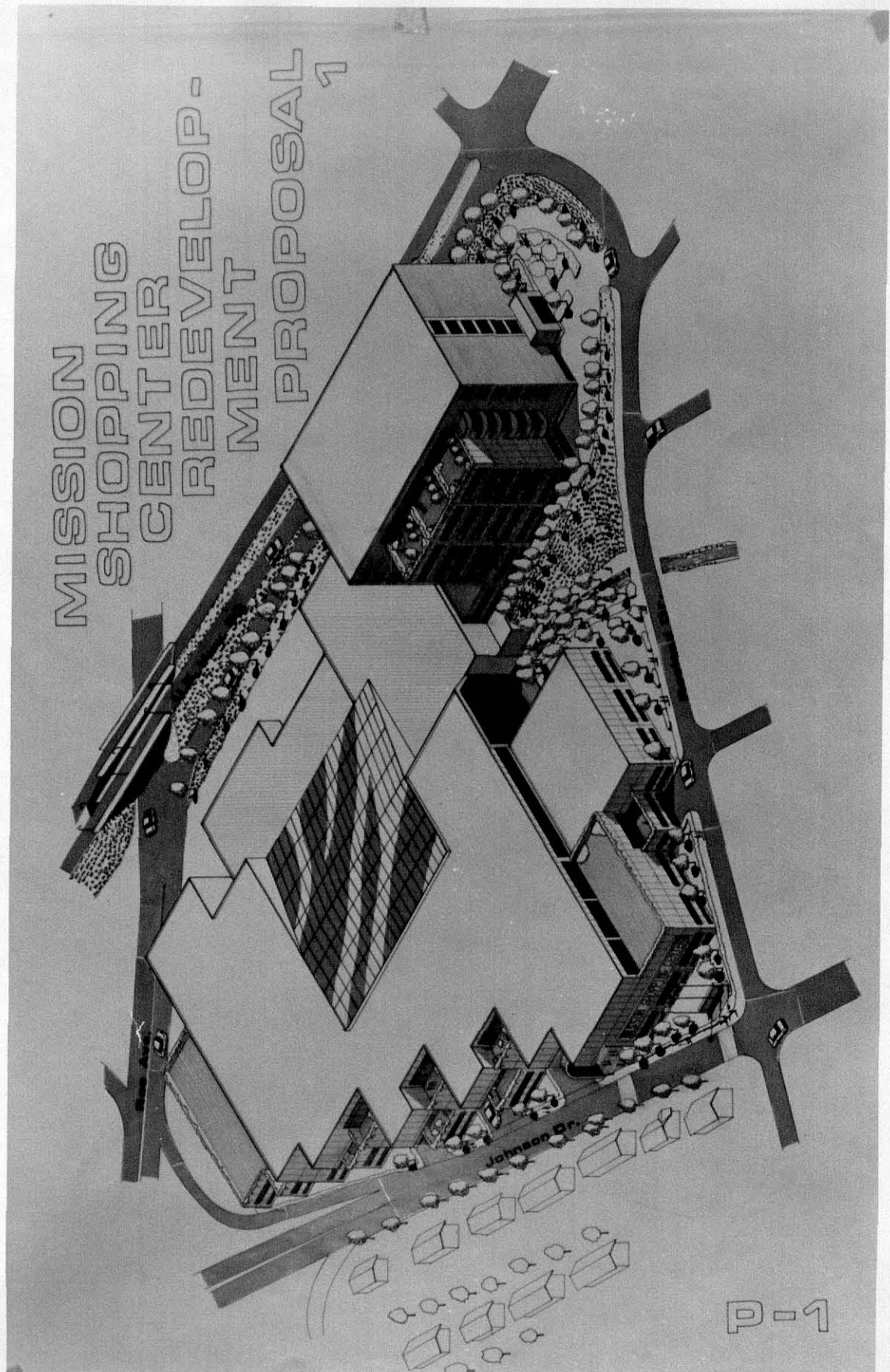


Figure 10

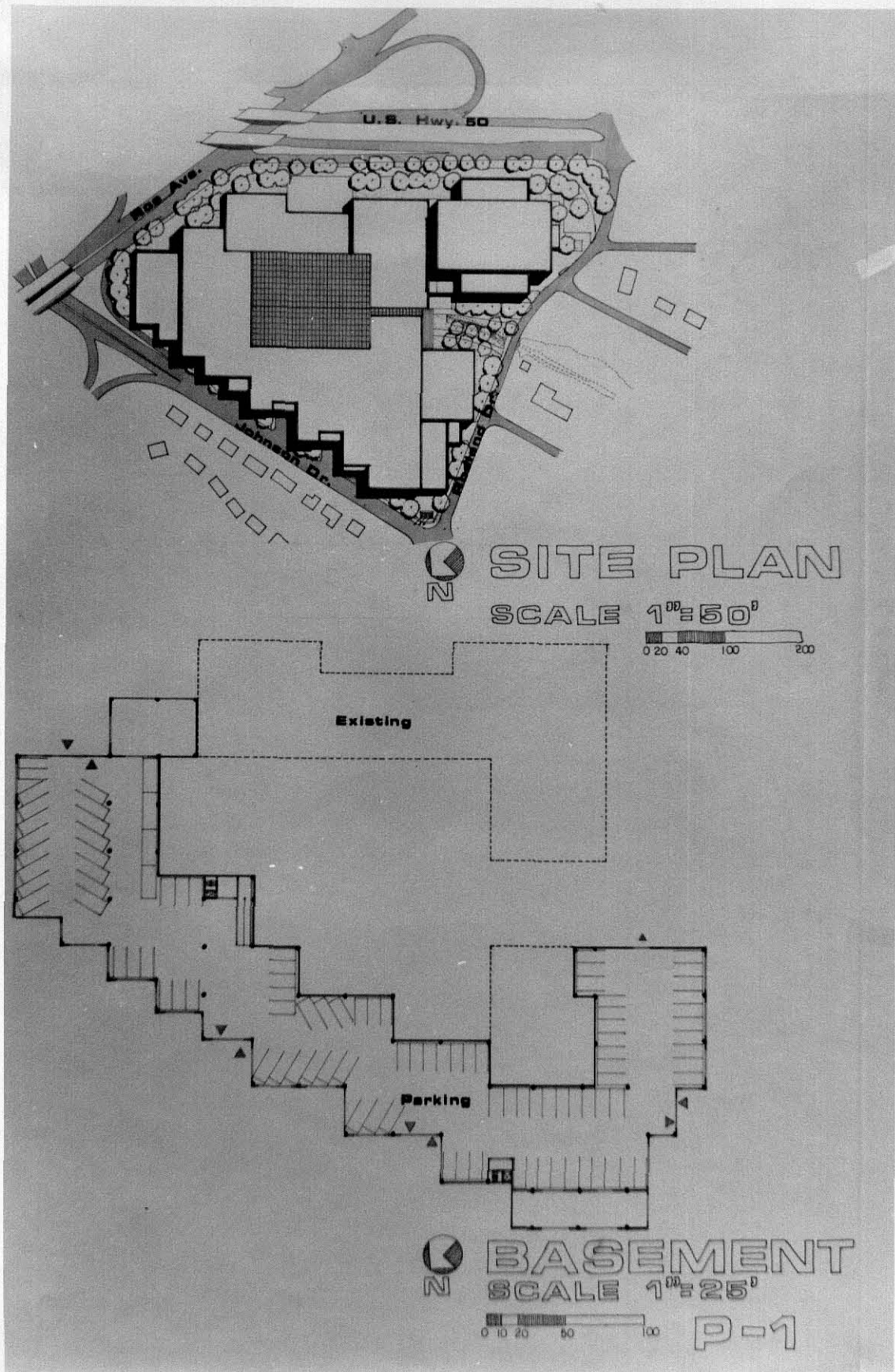


Figure 11

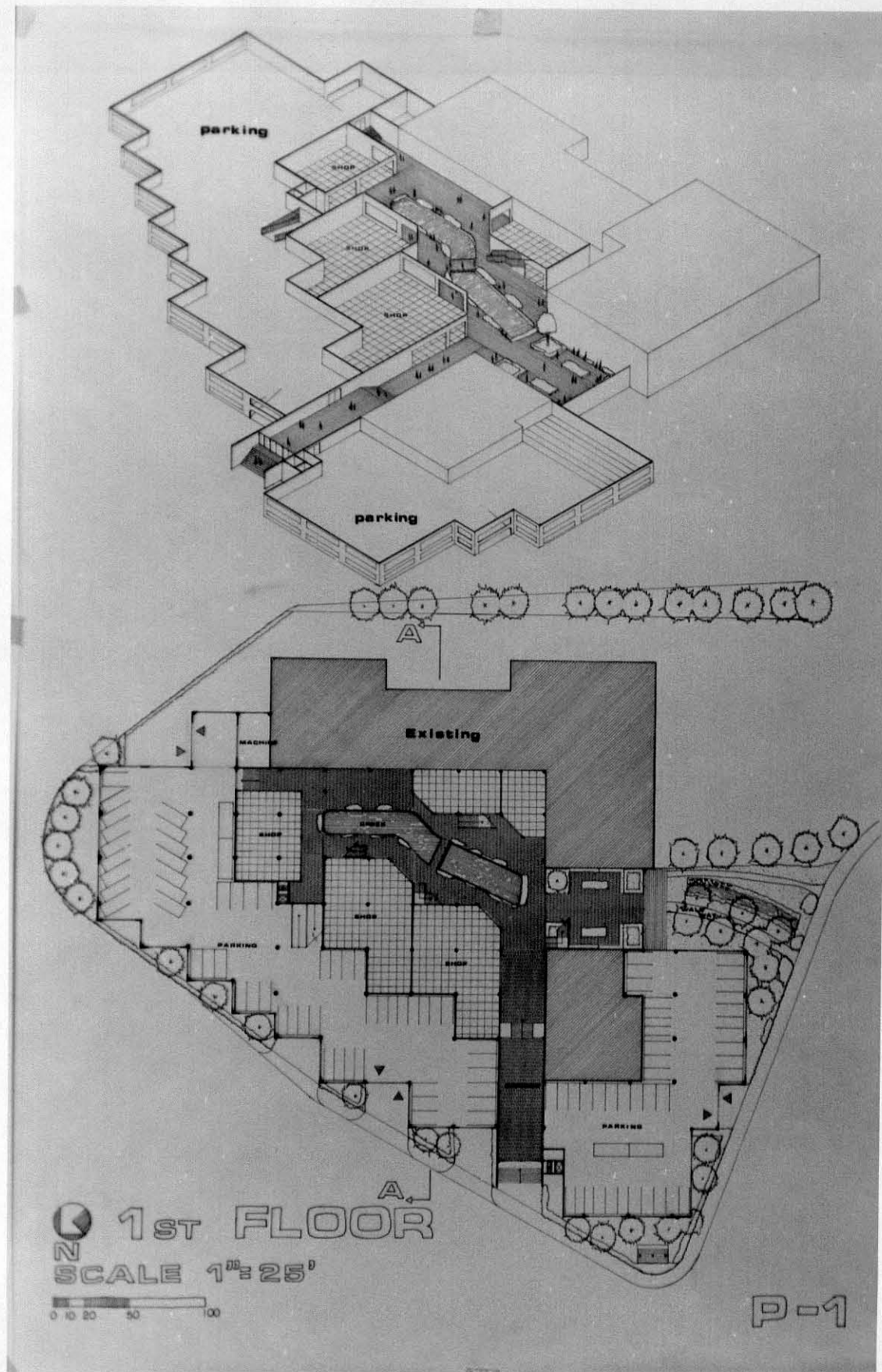


Figure 12

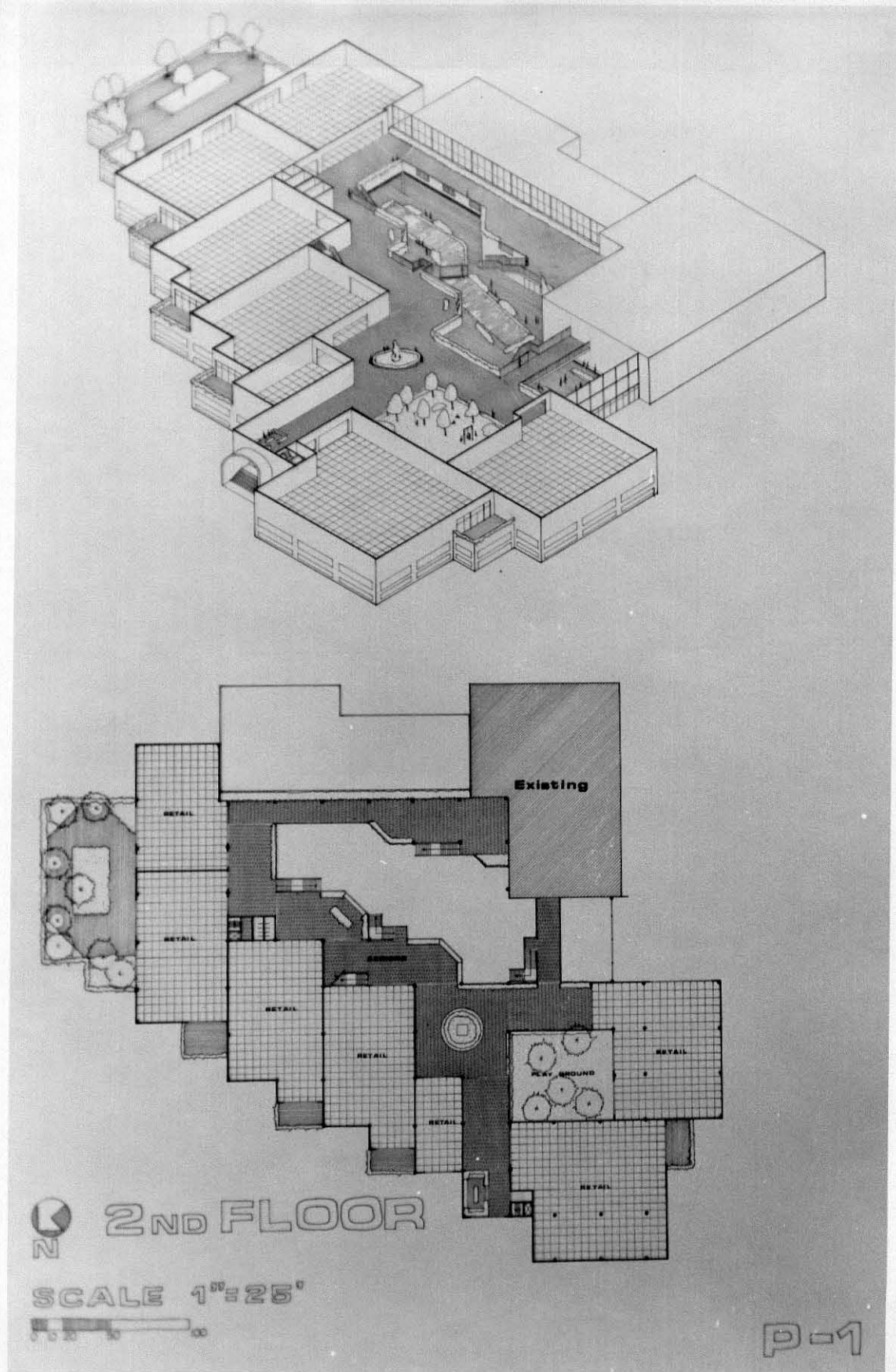


Figure 13

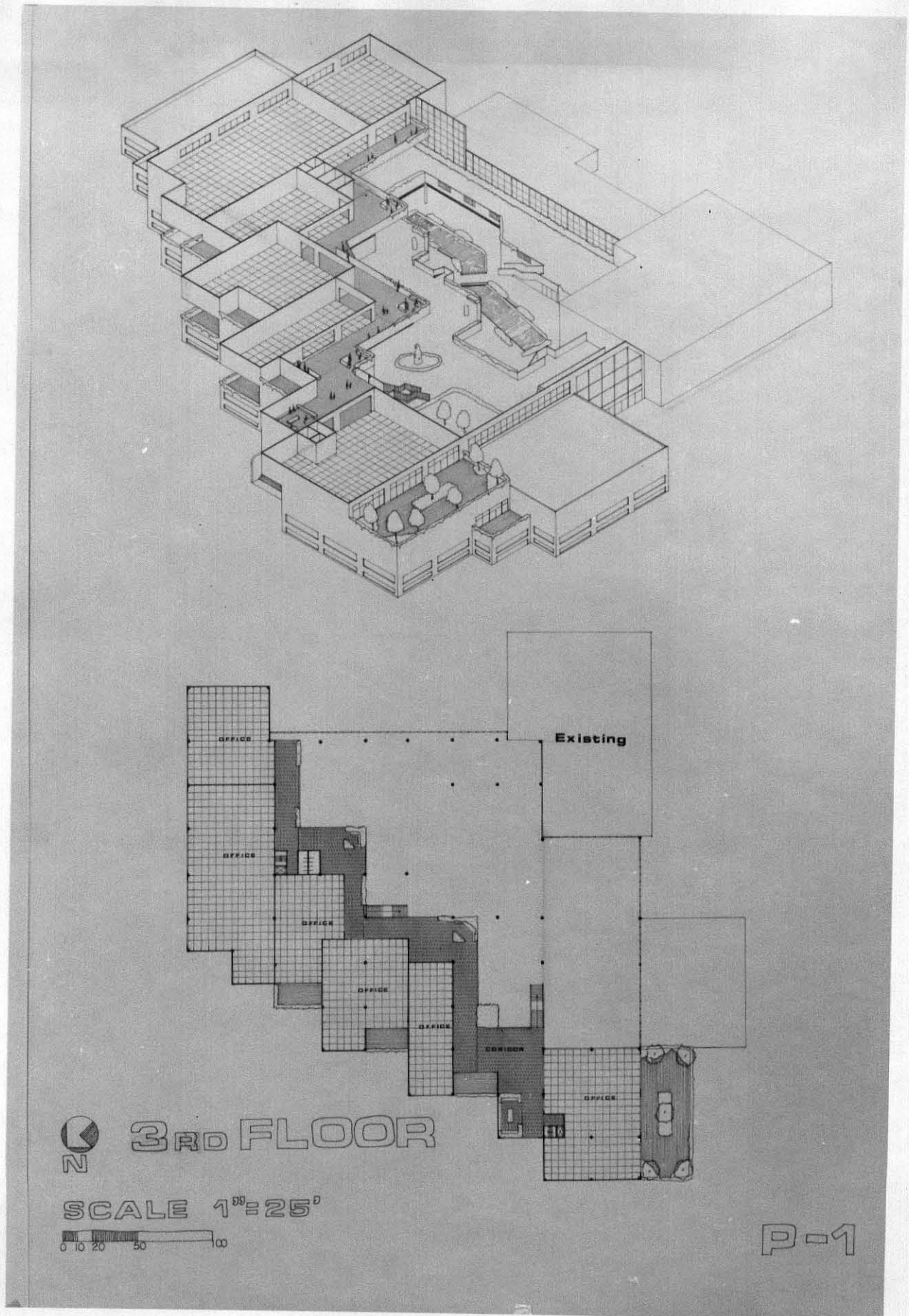


Figure 14

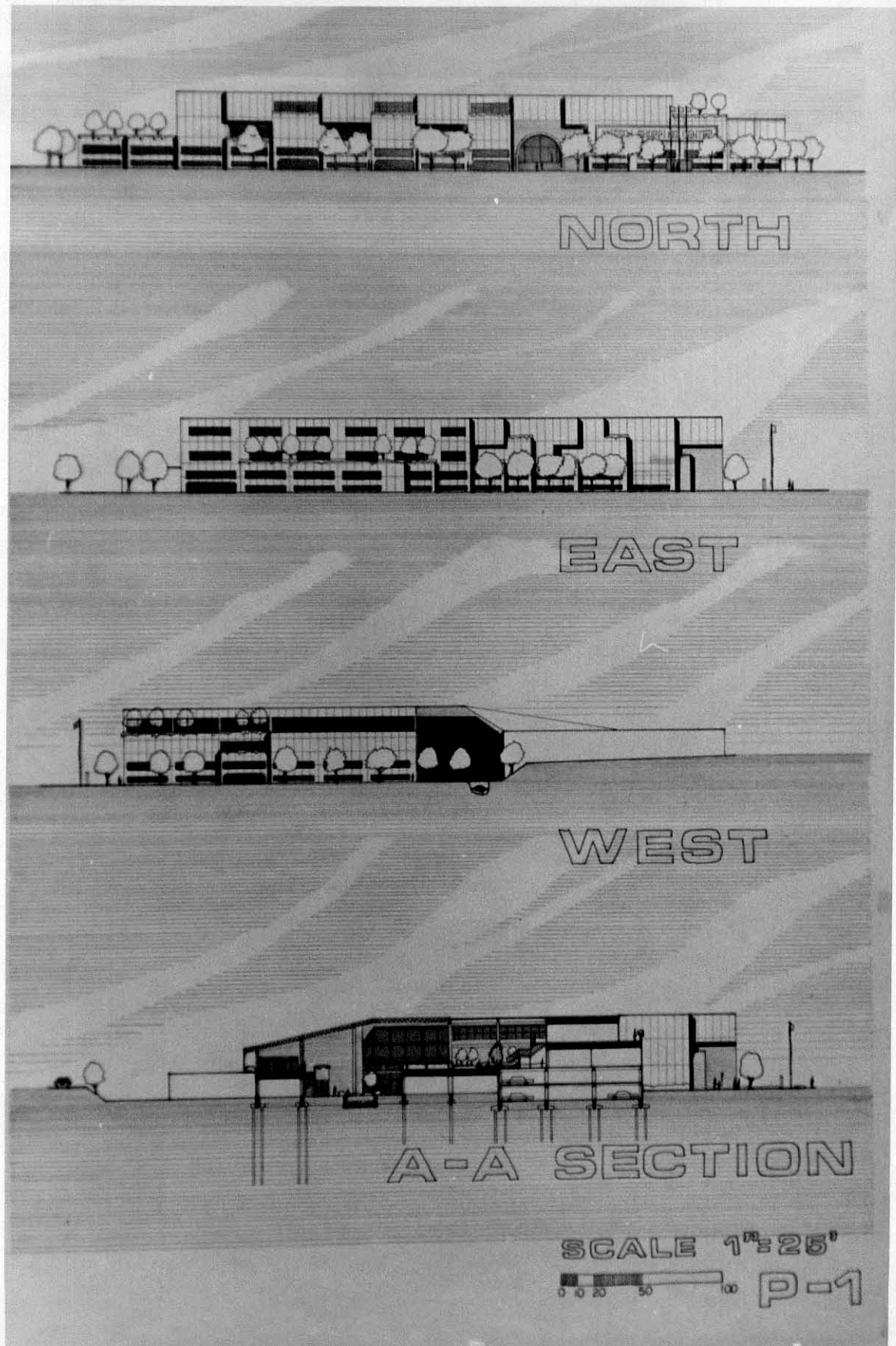


Figure 15

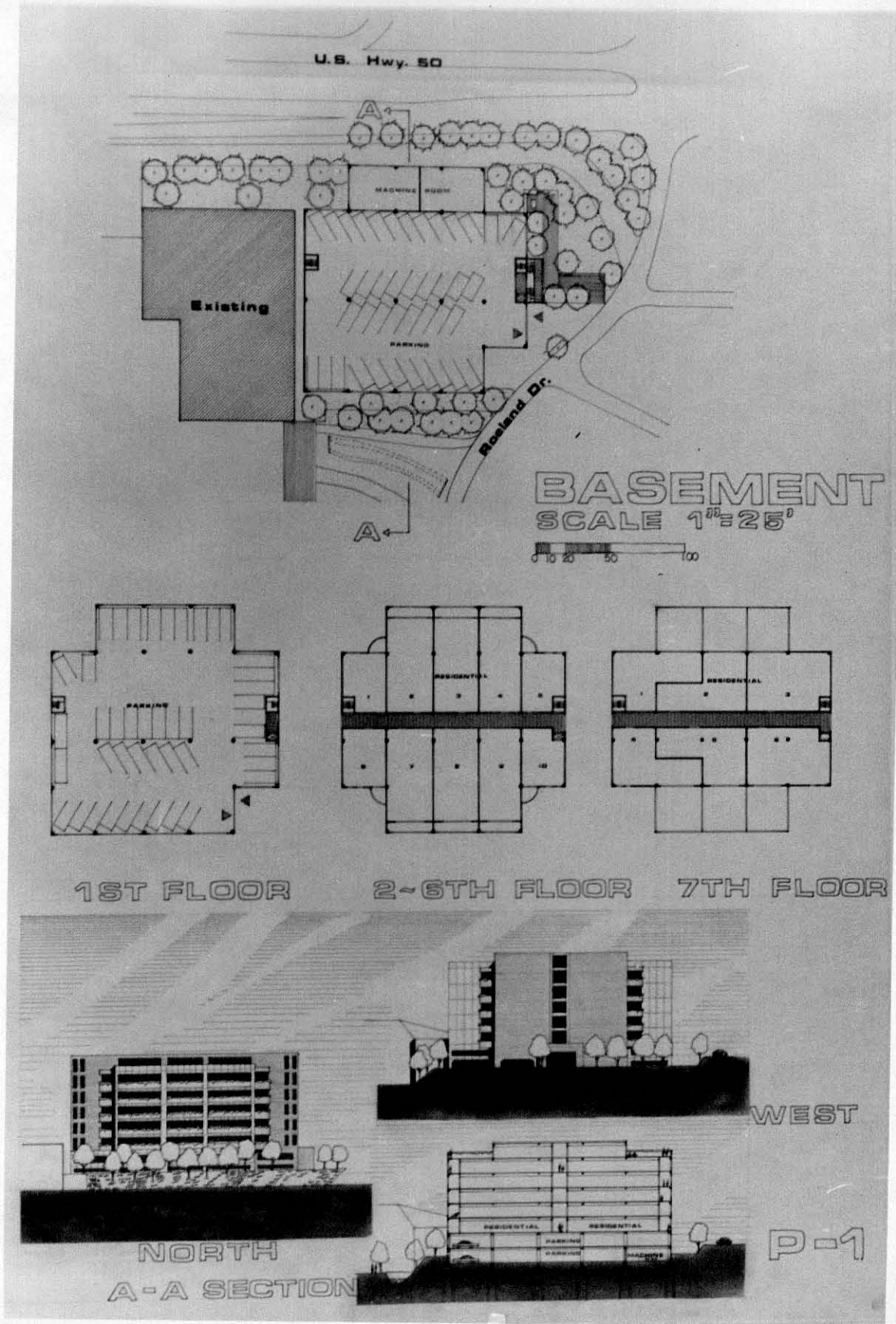


Figure 16



Figure 17

Figure 18

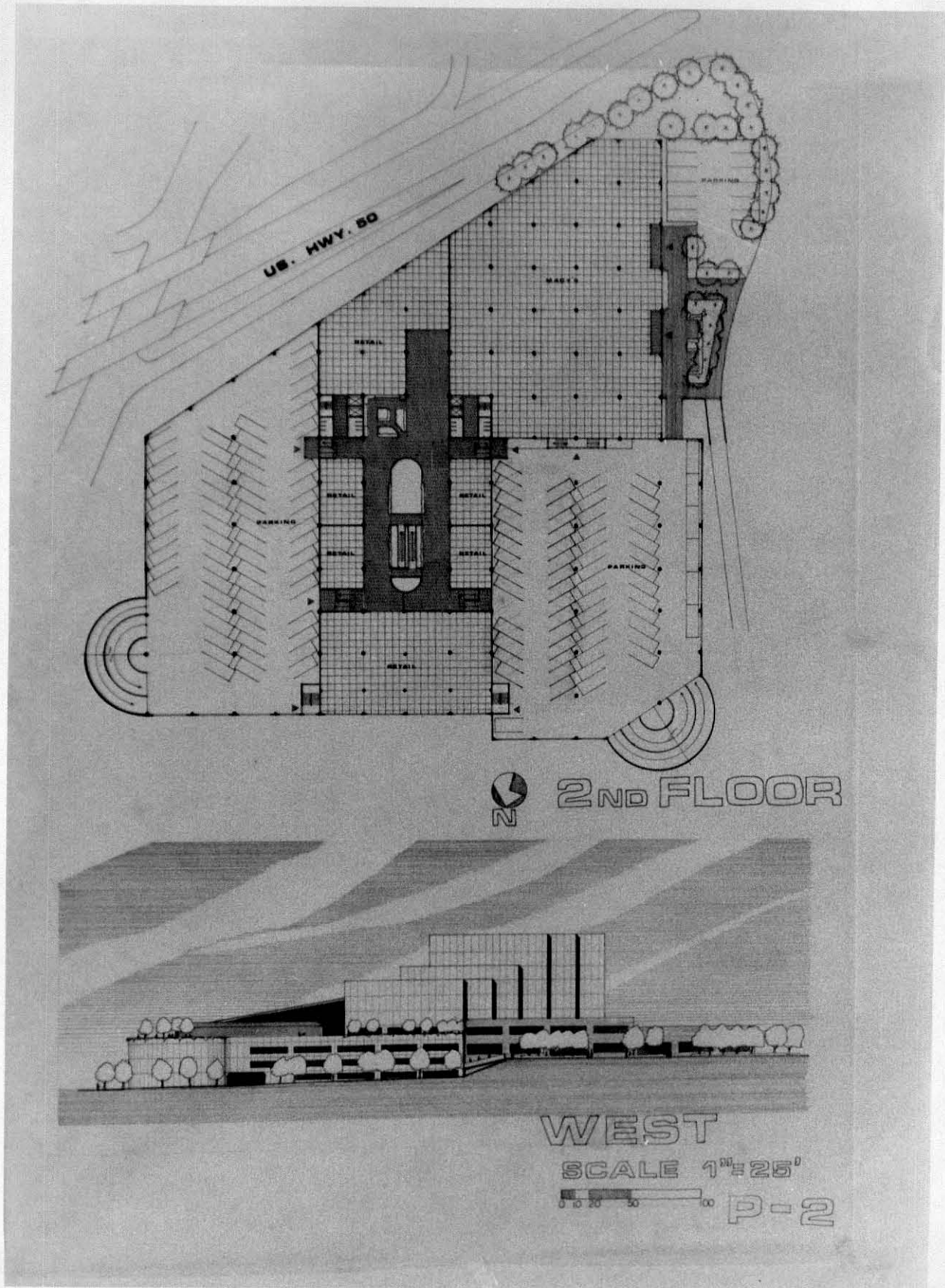


Figure 19

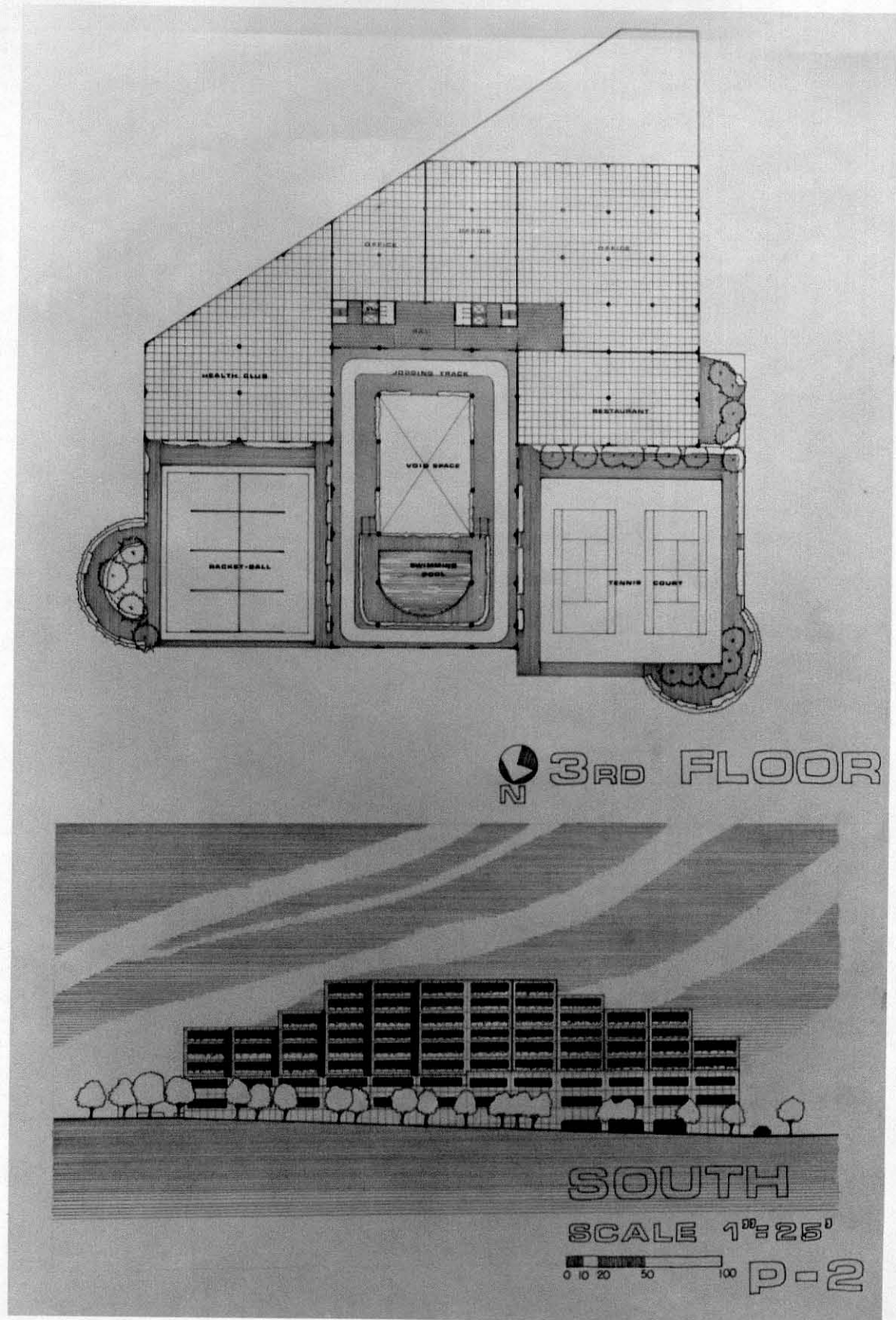


Figure 20

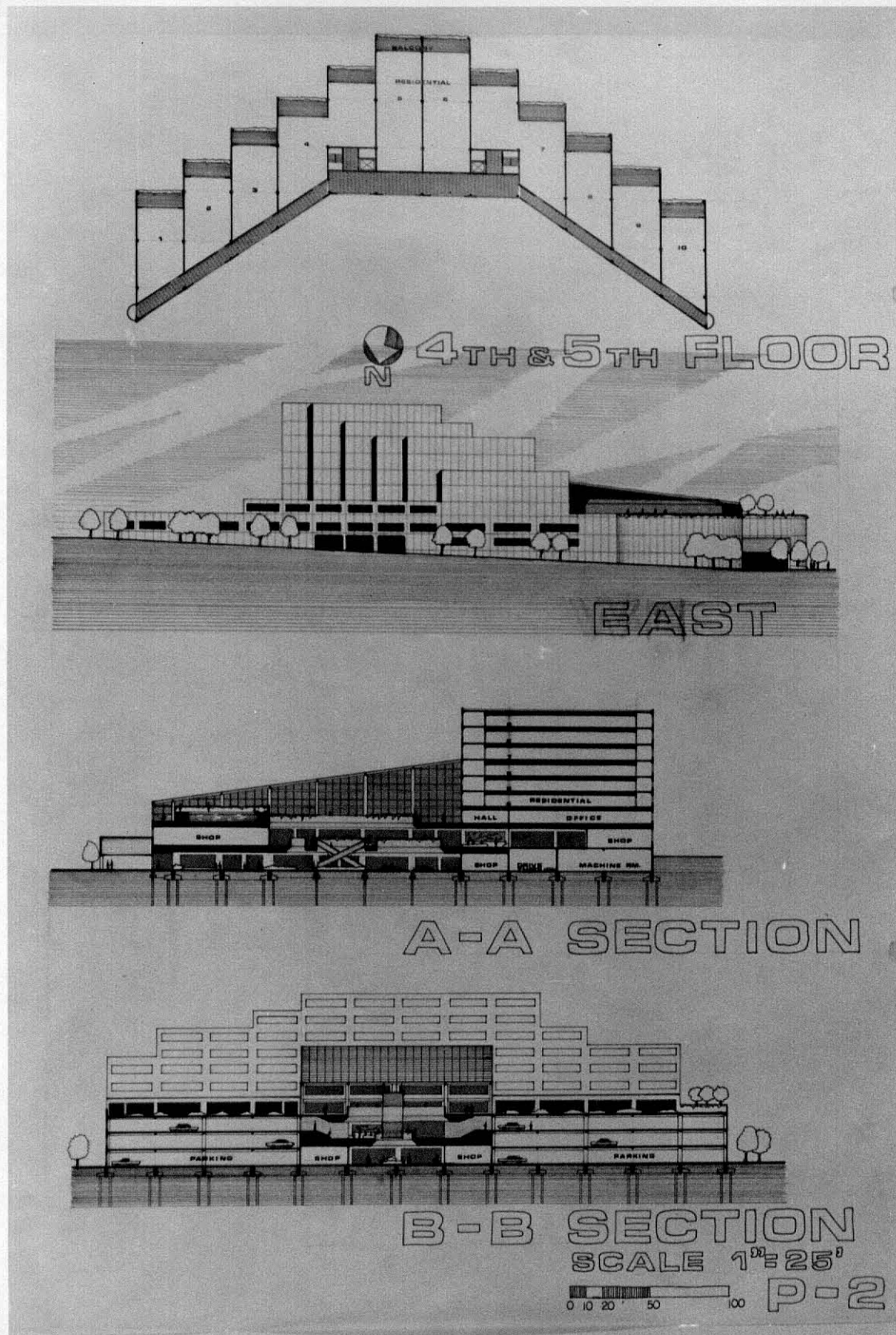


Figure 21

CHAPTER IX

CONCLUSION

In this study, several alternatives for improving the Mission Shopping Center site were identified; two were investigated in detail. One of the schemes attempts to utilize the existing building and to add new buildings and facilities. The other scheme investigates the potential of the site as the location for an entire new development; the existing buildings are completely demolished and replaced by a new project.

Both schemes increase the density of development by maximizing site coverage, quality of environment, and general urban convenience by revising or replacing the sprawling, land wasting shopping center of the 1950 era with a mixed-use development.

Both schemes have advantages and disadvantages. The major change in which the existing buildings remain, has these advantages. They are

1. The existing buildings are used in the new proposal.
2. A unique development as a mixed-use environment in the city is provided.
3. A point of orientation standing out from Johnson Drive is created.
4. The site is utilized efficiently although the design has been carefully related to the scale of the surroundings.

Disadvantages include

1. The residential and commercial facilities are not well integrated.
2. The parking complex is not well oriented or easy accessibility to the remainder of the complex.

3. The number of parking spaces is at a minimal level of adequacy.
4. Vehicular access from the streets to parking areas is not strong.

The new development scheme in which the existing buildings are cleared has these advantages. They are

1. The various functions are well integrated with each other.
2. The location of the project is easy to see because of the height of the mid-rise building.
3. The project is imageable; it stands out from Johnson Drive.
4. Several unique functions such as a health club and athletic facilities are provided.
5. The site is utilized efficiently.

Disadvantages are

1. While the "environmental fit" has been investigated thoroughly, the complex is larger in scale than the surrounding neighborhood.
2. Parking lot orientation with respect to the rest of this complex is not as strong as would be desired.
3. Parking space is adequate but not generous.
4. Vehicular access from the streets to the parking area is not strong.

Both schemes have been developed with a strong concern for the "environmental fit". Unfortunately this is not a condition which can be measured accurately. However, it is the author's opinion that both schemes relate well to the surrounding areas.

Comparing both schemes, the new development scheme is recommended. The advantages of this scheme are stronger than the major change scheme. The strong advantages include

1. The functions of the complex are better integrated. Access from parking to shops, shops to residences, and the relationship to the recreational facilities and restaurant are more convenient.

2. Unique functions such as the health club and athletic facilities are possible because new building placement was not determined by its location of existing buildings.
3. Visibility is clear and emphatic.
4. The form of the complex relates well to the surrounding area as well as to other elements of the complex.

Because of the reasons identified here, the new development scheme is recommended.

The two design proposals presented in this report evolved from the existing commercial usage of the site. As these mixed-use proposals were being developed it became apparent that future studies should be undertaken to investigate single purpose developments other than commercial.

For example, a residential complex with convenience shops appears to be worth studying. A complex of this sort might minimize the vehicular traffic congestion problem that was identified in the two designs proposed here. Other single purpose developments that should be investigated include an office complex, a recreation and entertainment complex, etc.

As these proposals evolved it became increasingly clear that Mission Shopping Center, although imageable and important, was only a part of the Johnson Drive development problem. The problems of Mission Shopping Center cannot be solved without a solution for the entire commercial area focusing on Johnson Drive.

The obvious problem along Johnson Drive include inefficient land use, unattractive commercial facilities, and confused parking spaces. Many other problems exist, many of which are not so easy to identify. Mission Shopping Center is a part of environment focusing on Johnson Drive and cannot be redesigned with total independence. The overall redevelopment of the area focusing on Johnson Drive will play an important role in the future of the City of Mission.

It is obvious after developing the projects proposed in this thesis that an overall plan should be undertaken for the area focusing on Johnson Drive before starting on any major development project. The cooperation between the shopping center owners and the City of Mission appears to be necessary for the redevelopment to be successful.

NOTES

¹ ULI-The Urban Land Institute, Shopping Center Development Handbook (Washington, D.C., 1977), p. 7.

² Robert E. Witherspoon, John P. Abbet and Robert M. Gladstone, Mixed-Use Developments: New Ways of Land Use (Washington, D.C.: The Urban Land Institute, 1976). p. 109.

³ Ibid., p. 109.

⁴ Ibid., p. 111.

⁵ Ibid., p. 116.

⁶ Ibid., p. 124.

⁷ Ibid., p. 121.

⁸ Ibid., p. 121.

⁹ Ibid., p. 6.

¹⁰ Haward, Needles, Tammen & Bergendoff, Proposed Plan for Land Use and Traffic, Mission, Kansas (Kansas: Department of Urban and Regional Planning, 1968), p. 64.

¹¹ Ibid., pp. 64-65.

¹² United States Department of Agriculture, Soil Conservation Service, Soil Survey of Johnson County, Kansas (1979), p. 179.

¹³ Corps of Engineers, U.S. Army, Kansas City, Missouri District, Flood Plain Information Blue River and Tributaries, Johnson County, Kansas (Missouri, 1970), p. 3.

¹⁴ Ibid., p. 11.

¹⁵ Haward, op. cit., p. 72.

¹⁶ Ibid., p. 72.

¹⁷ Ibid., p. 118.

18 Ibid., p. 20.

19 Ibid., p. 37.

20 Witherspoon, op. cit., p. 11.

21 Ibid., p. 121.

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A DESIGN FEASIBILITY STUDY TO IDENTIFY
OPPORTUNITIES FOR REDEVELOPING MISSION SHOPPING CENTER

by

Shigeyuki Kawagoe

B.S., Shibaura Institute of Technology, 1973

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF ARCHITECTURE

Department of Architecture

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1980

At present, many older shopping centers which were built on small tracts of land, (considered large at the time of development), have lost their trade to newer and larger shopping centers offering greater diversity, better selection, more amenities and environmentally controlled public spaces. Due to the development of these newer shopping centers many older suburban shopping centers have declined, or are presently declining in importance. In the original site design these older centers were surrounded by a sea of parking, often without landscaping. Now, much of their large land area which is designated for parking, stands vacant or little used. It now appears that these lands have potential for redevelopment due to their location within urbanized areas and because each center is usually owned by one person or organization.

Mission Shopping Center, located in Mission, Kansas, is one of the oldest shopping centers in that area. Although underutilized and generally declining this center still serves as the major activity node for the Mission business district.

Using the Mission Shopping Center site as a case study, the purpose of this thesis is to

- A. Identify the alternatives for renovating or redeveloping the site;
- B. Evaluate these alternatives briefly; and
- C. Select two alternatives and investigate their design feasibility by considering location, circulation, adequacy of utilities, relationship to adjacent land uses, and general "environmental fit".

This thesis investigates the design feasibility of two mixed-use proposals for renovating or redeveloping the Mission Shopping Center site. Economic feasibility is not investigated in this thesis.

The two proposals which have been developed present

- a. A design in which new buildings and developed spaces have been added to the existing buildings.

- b. A design in which the entire site has been cleared of buildings allowing total new development.

Both schemes consider the importance of relating the new development to the surrounding buildings, spaces, and land uses and have therefore achieved an "environmental fit". Neither scheme has buildings with overwhelming scale or with an extraordinary shape. Both schemes are visible as well as imageable.

Parking emerges as a problem in both proposals. While the needs can be met, the parking garages are not as well organized as other elements of the project in terms of orientation and accessibility.

It appears that future studies should consider the possibility of single purpose developments to minimize the parking and circulation problems. The intensity of the parking problem may not be as critical if the site were used for residential office, or recreational purposes.

It was also found that the entire Mission business district along and adjacent to Johnson Drive has problems such as inefficient land use, unattractive commercial facilities, and confused parking. Redevelopment of the entire area appears to be necessary if it is to be stabilized. It is doubtful that the proposals presented here achieve their potential without the redevelopment of the entire Johnson Drive area.