

DESIGN OF AN URBAN COMMUNITY IN KANSAS

by

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STATEMENT OF PROBLEM

The problem was to design an urban community somewhere in the eastern part of the state of Kansas. The design includes the street plan, lot plan, school, park, business district and civic center. Zoning regulations were drawn up for single unit housing, apartment and duplex zones, central business area, and light industry.

INTRODUCTION

There is a definite need in the United States for comprehensive planning and zoning of urban communities.

In this changing world of the present day, from battle fronts to back yards, no one is aware of the acute need of a modern up-to-date planning commission better than the returning veterans who are fully conscious of the necessity of a sound planning program for the future. In every village, town, and city they have felt the need for better home and family life.

The government is slowly awakening to the fact of the urgent need to do something about urban development and growth. In the past, there have been programs in the field of sociology for the benefit of rural and metropolitan population, but due consideration has not been given to the urban

people. In the Sixteenth Census Report (1940) of the United States are shown the needs of this group of our society. The people in the United States as a whole are a movable group and will move to places that will satisfy their wants, needs, and enjoyment of life. This, in turn, will raise the standard of living, eradicate slums, and improve the morals of the lower income families.

Every man should have the feeling of security and satisfaction in owning his own home and working in his own yard and garden to obtain a maximum enjoyment of everyday life.

PROCEDURE OF DESIGN

It was assumed that this site, the community of Hillcrest, is five miles from the center of an imaginary city and adjacent to a factory employing 1,000 men. Due to these conditions, it was thought best to design the community as a medium low-cost development. The site is bounded on the north by a Federal highway and on the east by a State highway. The west and south sides are bounded by County roads.

Eight rough studies were made of the area at the scale of one inch equals 200 feet. The study that was chosen as the best solution was enlarged to one inch equals 80 feet.

The business area and civic center were enlarged to the scale of one inch equals 40 feet. Several rough studies were made of this area at the above scale. The major factors that

determine the choosing of the study as the best solution for the problem will be discussed in the latter part of this thesis. From this study there were several other rough studies of store fronts, perspectives of the school, and war memorial plus an over-all perspective of the civic group, central business area which were designed to the best knowledge of the designer. After all of these designs were drawn out on tracing paper, they were transferred to the present water color paper and rendered in Chinese ink. Photographs constitute part of this manuscript.

ELEMENTS OF DESIGN

Proposed Street System

The proposed street system for Hillcrest is shown on the master plan, Plate I. The system includes five different widths of pavements and right-of-ways.

Major Streets. Hillcrest Drive and Road are the major two streets in Hillcrest. They are designed for the most heavily traveled streets within the town and have a width of 80 feet which provides a desirable traffic pattern of four lanes (Street cross sections, Plate VII).

Cross Town Streets. The majority of the streets in Hillcrest are cross town routes. These carry traffic from one residential section to another or to other major objectives

within the urban areas.

They also serve as feeders to the major streets which in turn feed into the business area and factory entrance.

Boundary Streets. The boundary streets were discussed under Procedure of Design.

Distributor Streets. Distributor streets are streets leading into the business area. Hillcrest is fortunate in having an excellent location for its business district.

Parking Facilities. Street parking is provided on all major streets and cross town streets except in the parkways and the district through the central business area.

Off-street Parking. Off-street parking is provided in the civic group and central business area. The total number of spaces for parking is approximately 350 cars.

Proposed Lot Plan

The lot plan for Hillcrest varies from 60 by 120 feet minimum to 75 by 150 feet maximum size of a residential lot. The minimum sized lot that a private resident could occupy and be properly landscaped is 60 by 120 feet. Well landscaped yards of this size would add to the general appearance and character of Hillcrest.

A city's appearance is the most important factor in creating contentment and pride among its citizens. This will become increasingly important in the future since our cities

are growing so rapidly that the most attractive and desirable living conditions will increase the value and sales of home sites and influence future urban growth.

Elementary and Intermediate Schools

The proposed elementary and intermediate schools for Hillcrest are located between Hillcrest Drive and Road within the neighborhood. With this location, no child would have to walk farther than a quarter of a mile to school.

Safety Factors. It is being considered as a future development that an underpass for the school population should be constructed that will cross both Hillcrest Drive and Road.

High School. The Board of Education for Hillcrest pays tuition and provides transportation for their students in the high school in an adjacent city.

Neighborhood Playground

The site provided for the school provides a central location for a neighborhood playground development and as it was stated earlier in the manuscript, no child would have to walk farther than a quarter of a mile to school.

Park

The park system is composed of one naturalistic park and one supervised playground at the elementary school site. Riverside Park is within walking distance of any part of Hillcrest.

Riverside Park is a natural wooded area comprising approximately ten and one-half acres. The natural character has been preserved plus a few minor improvements, none of which detracts from the natural beauty. It is equipped with a swimming pool, bathhouse, shelter houses and open areas for many other play facilities. Among its other features are children's play area and ample parking facilities.

Central Business Area (Shopping Center)

The village green is coming to Hillcrest, but it is being dressed up for the modern times instead of the village green as can be recalled in days gone by. The main street of Hillcrest will have an attractive and pleasant atmosphere instead of hot pavements filled with trucks, cars, and busses. The village green has a large open lawn area dotted with shade trees, shrubs and flower beds.

Facing the stores inward to a court eliminates all the evils of a common main street, which is too narrow and

hazardous for the shopping population. In this way, the stores become well lighted, clean, and have a dressed up appearance. It places competition on a more even standard among the merchants thus encouraging a peaceful like neighborhood which insures more stable values and will in turn raise the standards of living by not having business areas springing up in various sections of town.

Location of Site. As a business area adjacent to homes always lowers the value of residential property, it was thought best to place it to one side of the development and on the side adjacent to the factory site. Due to the small size of the entire community, the locating of the business area to one side did not place it too far from the most distant residential lots.

Parking. The parking space for the central business area is ample and convenient for the shopping population of Hillcrest. The space provided for parking is located adjacent or directly behind the central business area. All the parking spaces are laid out on 45 degree angles, for one-way traffic only. The space for each individual car is eight feet by 18 feet giving a total of 144 square feet per vehicle.

Service Area. The service area for the business enterprises is part of the plan designed for parking areas. This area is designed so trucks may back up to the unloading dock which is part of the design of the buildings.

Civic Center

Selection of Site. There are several major factors that influence the selection of the site for the grouping of civic buildings.

Cost of Site. A desirable location is more important than the cost of the site. Civic centers in some of our cities today were located on a site because the land was cheap. Since city buildings will occupy their site for a great length of time, the difference in cost would be of little consequence.

Size and Shape of Site. The city buildings in Hillcrest have been made large enough to fulfill the needs of the community. Likewise, the size of the site is sufficient to give each building a desirable setting which will in turn create an attractive grouping. Since the city hall and community building are the largest of the three, it was given the dominating position in the group.

Location of Site. The location for the civic center was selected to join the business area on the north. The location not only places the post office and library near the shopping center but helps to provide a suitable terminus for the mall of the business area.

Parking Facilities. The parking for the civic group is located between Sycamore Drive and the civic group. There are two one-way parking centers for the convenience of the motoring

population. One comes from Parkview Drive and the other is off Hillcrest Drive. Each of these areas is 45 feet in width and the cars are to be parked on 45 degree angles with areas of 144 square feet for each vehicle.

Public Health

It is assumed that Hillcrest will have and will meet the necessary requirements set up by the city, state and national laws regarding the public health.

Water. It is proposed that the water supply for the community of Hillcrest will be furnished by the adjacent city.

Sewage. It is assumed that the sanitary sewer system will connect to the system of the adjoining city.

ZONING REGULATIONS

The zoning regulations are for the purpose of protecting the citizens' property, promoting safety, health, and general welfare of the community of Hillcrest. This zoning shall have regulations for location of industry, trades, specific used areas and establishing boundary districts for the above purposes; and have the power to impose penalties when they are not within their proper proscribed districts.

General Building Regulations

1. Height of building. No building shall exceed thirty-five (35) feet in height, except in areas with specific use as listed below:

1. School area
2. Civic group area
3. Light industry area

2. No building in the central business area shall exceed twenty (20) feet in height.

3. No building in the light industrial area shall exceed fifty (50) feet in height.

4. Front yard space. The building line in all housing areas shall be thirty (30) feet from the front lot line.

5. Side yard space. There shall be a side yard space of ten percent (10) of the width of the lot from the side lot lines.

Single Home Sites

1. In this specific area, it is designed for homes as the name implies, single home buildings. No building structure, land, or premises shall be used and no building or structure shall be moved, erected, constructed, or altered other than for single family use.

2. Area per single family. In this prescribed area, the area for a single family lot shall not be less than seventy-two hundred (7200) square feet.

3. Garages. There shall be permitted one private garage, one car to each two thousand (2000) square feet of lot area. If detached from the house, the garage shall be located sixty (60) feet from the front lot line and shall not be less than three (3) feet from any side line. In case of a corner lot, not less than the distance of twenty (20) feet from the side line will be considered.

A. Duplex garages may be constructed across a common lot line by mutual agreement between land owners and must be approved and a permit issued by the Board of Appeals and Approvals of Hillcrest development.

B. Community garages shall not be permitted in the single home area.

4. Billboards, signboards, or advertising signs shall not be permitted in this area other than FOR SALE or FOR RENT and shall not be more than four (4) square feet in area.

A. Signs advertising home construction by contractors and architects may be placed in the front yard space during construction but not exceeding eight (8) square feet in area and must be approved and permits issued for such signs by the Board of Appeals and Approvals of Hillcrest development.

Apartment and Duplex Housing Area

1. No building, structure, land, or premise shall be used, and no building or structure shall be erected, moved, or altered other than for the use of apartments or duplex units.

2. Area per single family. In this prescribed area, the area for a single family lot shall not be less than two thousand (2000) square feet.

3. Garages. Duplex garages may be constructed across a common lot line by mutual agreement between land owners and must be approved and a permit issued by the Board of Appeals and Approvals of Hillcrest development.

A. Community garages shall not be permitted in the apartment and duplex housing area.

B. Community car shelters shall be permitted in this area and erected by the apartment owner.

4. Billboards, signboards or advertising signs other than FOR SALE or FOR RENT shall not be permitted in this area and shall not be more than four (4) square feet in area.

A. Signs advertising home construction by contractors and architects may be placed in the front yard space and not exceeding eight (8) square feet in area and must be approved and permits issued by the Board of Appeals and Approvals of Hillcrest development.

Central Business Area (Shopping Center)

No building, structure, land, or premise shall be used, and no building or structure shall be erected, moved, or altered on any lot in this area other than for the use of central business. The said such businesses shall be as listed below. These may be changed by the Board of Appeals and Approvals to fit the problems.

1. Drygoods stores
2. Grocery stores
3. Offices (professional)
4. Banks
5. Department stores
6. Drug stores
7. Sports shops
8. Restaurants

Light Industry

No building, structure, land, or premise shall be used, erected, moved, or altered on any lot in this area other than for the use of light industry. The said such industries shall be listed below. These may be changed by the Board of Appeals and Approvals to fit the problems.

1. Milk depots
2. Egg markets (wholesale)

3. Milk creameries
4. Produce markets (vegetables, wholesale)
5. Ice plants
6. Garage (repair)
7. Cleaning, dry cleaning and laundry

SUMMARY

This study has brought out some of the advantages of planning an urban community in advance. Many of the ills and blighted conditions in our cities today might have been eliminated had growth been wisely planned from the beginning.

The citizens in a community such as Hillcrest should enjoy stable real-estate values due to proper zoning regulations. The comparatively low values of property in this community compared with values in larger congested cities permit its citizens to own a large enough lot to have attractive surroundings and a desirable setting for their homes. The fresh air, bright sunshine, and the quietness of a well planned community outside of congested cities are of great importance in furthering the health and contentment among its citizens.

This community would be primarily dependent upon industry but due to its location, agriculture could contribute much to it. With its social advantages and attractive surroundings, it should be a model community possessing qualities of both town and country life.

Table 1. Summary of the different elements of the design.

Elements	: : Size in acres	: : Percent of total area
Park	11.9	8.2
Light industry	7.2	4.9
Street system	33.9	22.7
Civic center	7.7	5.3
Shopping center	3.1	2.1
School site	9.1	6.3
Residential sites	72.1	49.7
Total	145.0	

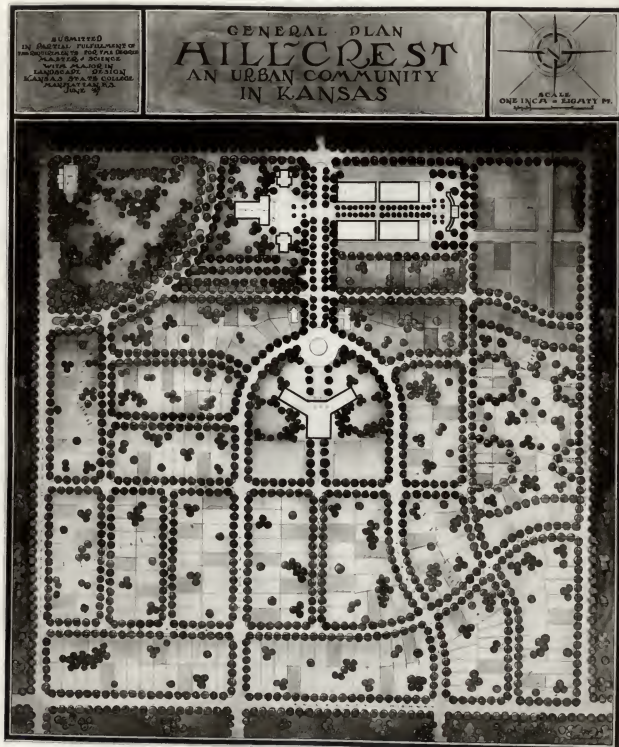
Table 2. Summary of lot plan.

Size of lots	: : No. of lots :	Percent of residential area
60 feet by 120 feet	153	44
65 feet by 135 feet	87	21
70 feet by 140 feet	50	14
75 feet by 150 feet	39	10
Duplex lots	44	11
Total	373	

EXPLANATION OF PLATE I

Master Plan of Hillcrest.

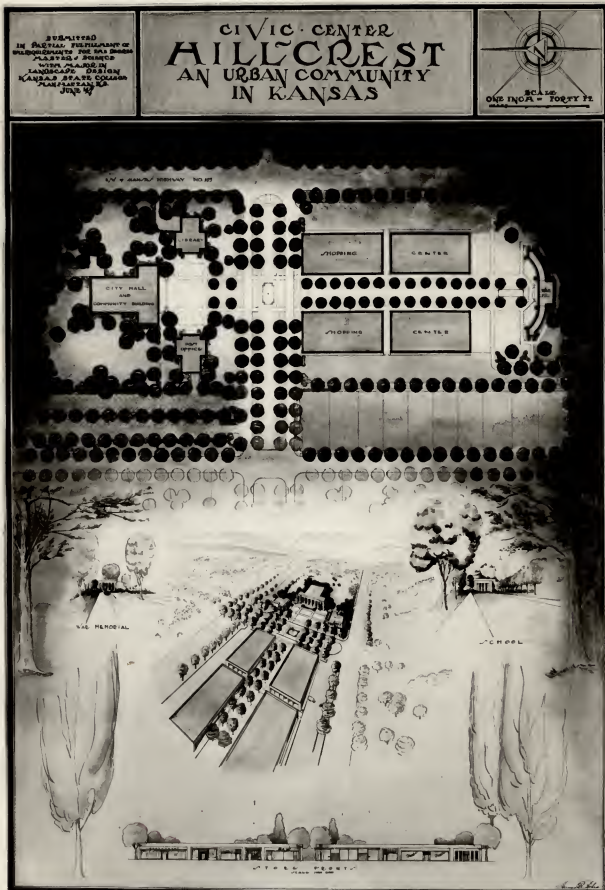
PLATE I



EXPLANATION OF PLATE II

Civic Center of Hillcrest.

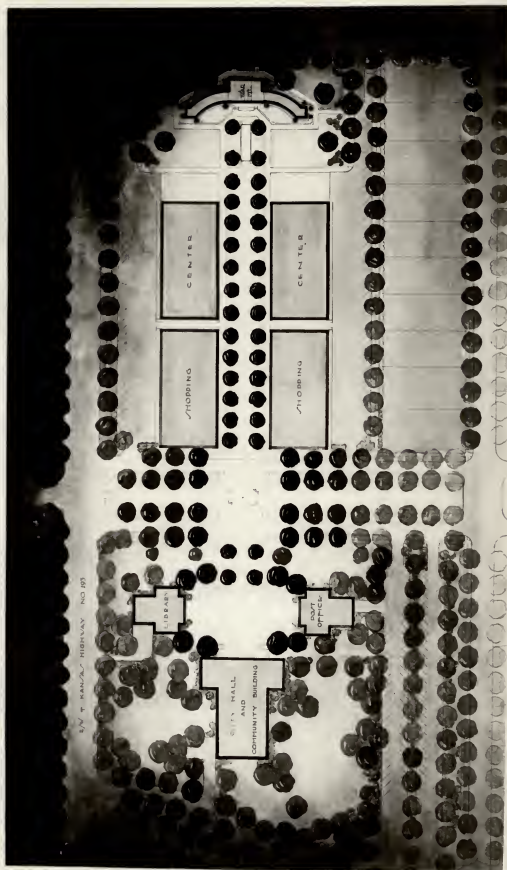
PLATE II



EXPLANATION OF PLATE III

Civic Center, Shopping Center and War Memorial of Hillcrest.

PLATE III



EXPLANATION OF PLATE IV

An artist's view looking toward the front entrance of the Elementary and Intermediate School of Hillcrest.

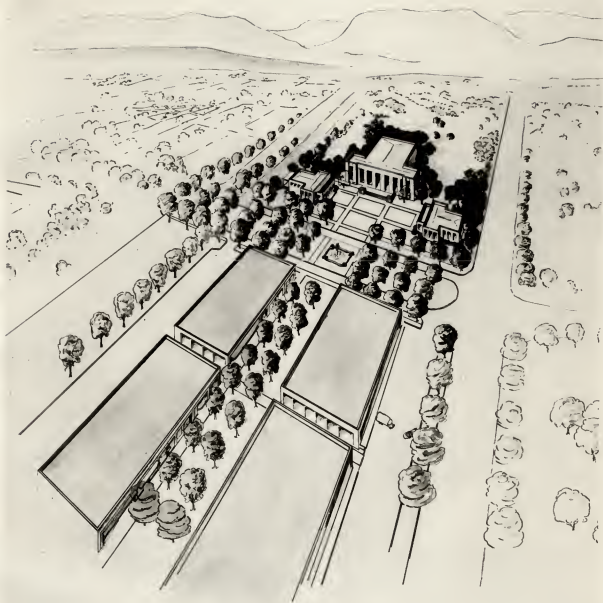
PLATE IV



EXPLANATION OF PLATE V

Perspective view of the Civic Center
and Shopping Center for Hillcrest.

PLATE V



EXPLANATION OF PLATE VI

Store fronts in the Shopping Center of Hillcrest.

PLATE VI



EXPLANATION OF PLATE VII

Cross section of the different street widths
and right-of-ways for the street system in Hillcrest.

PLATE VII
STREET CROSS SECTIONS



HILLCREST COURTS



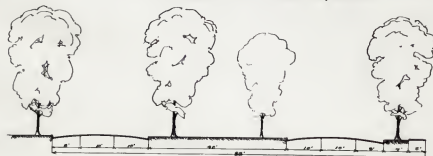
CROSS-TOWN STREETS



HILLCREST DRIVE & ROAD



HILLCREST DRIVE & ROAD

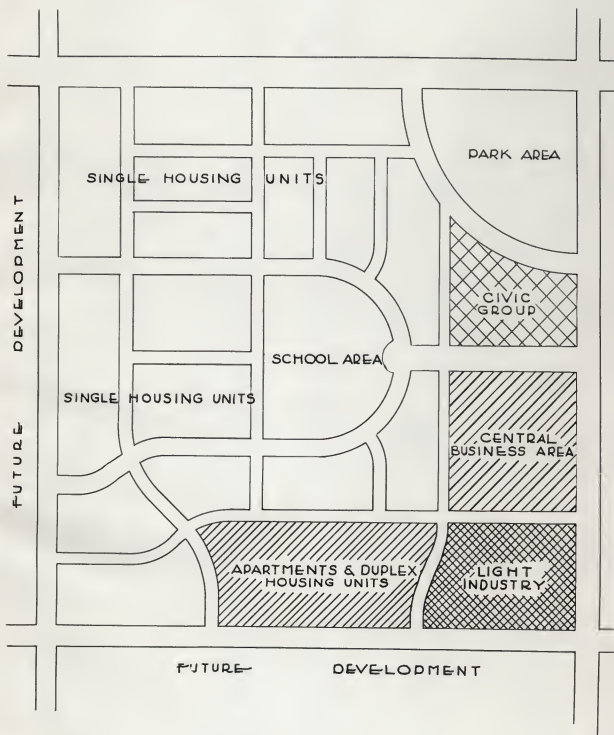


PARK-VIEW DRIVE

EXPLANATION OF PLATE VIII

The different zoning regulations and
the boundaries of said areas for Hillcrest.

PLATE VIII



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