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URBAN LAND USE

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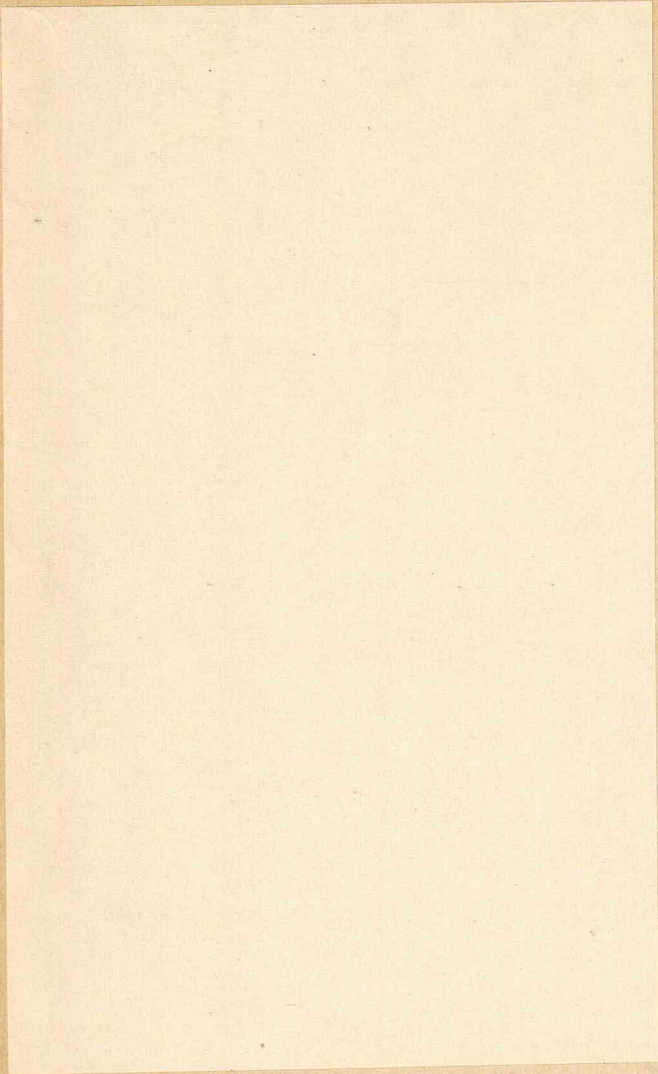
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URBAN LAND USE

* * *

SIOUX CITY, IOWA

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A Report by the
Urban Planning Division
of the
IOWA STATE PLANNING BOARD
in Cooperation with the
WORKS PROGRESS ADMINISTRATION
for the
SIOUX CITY ZONING & PLANNING COMMISSION
1936

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ACKNOWLEDGMENT

The Iowa State Planning Board and the City Planning and Zoning Commission of Sioux City are indebted to the city officials, particularly the city engineer's staff, for their generous cooperation in securing pertinent data.

The gathering of the field data upon which this report is based was made possible by the Works Progress Administration through Work Project No. 1531, assisted by the National Youth Administration through Work Project No. 1743-Y-1.

Credit is due the Agricultural Extension Service of Iowa State College for the services of Mr. Fitzsimmons as consultant.

INTRODUCTION

City Planning Commissions have been formed "with the purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the municipality and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity and general welfare, as well as efficiency and economy in the process of development."

The foundation of every comprehensive city planning program is the master plan with its maps and notes. A part of the plan has been the designation and restriction of the uses of the land. This power of the municipality - zoning - is necessary in making the plan effective. Too frequently planning and zoning have not been considered in their proper relationship. With streets and service facilities already existing it is possible to zone to prevent further over-burdening. In new subdivisions the extension of streets and utilities may parallel the uses for which each section is zoned.

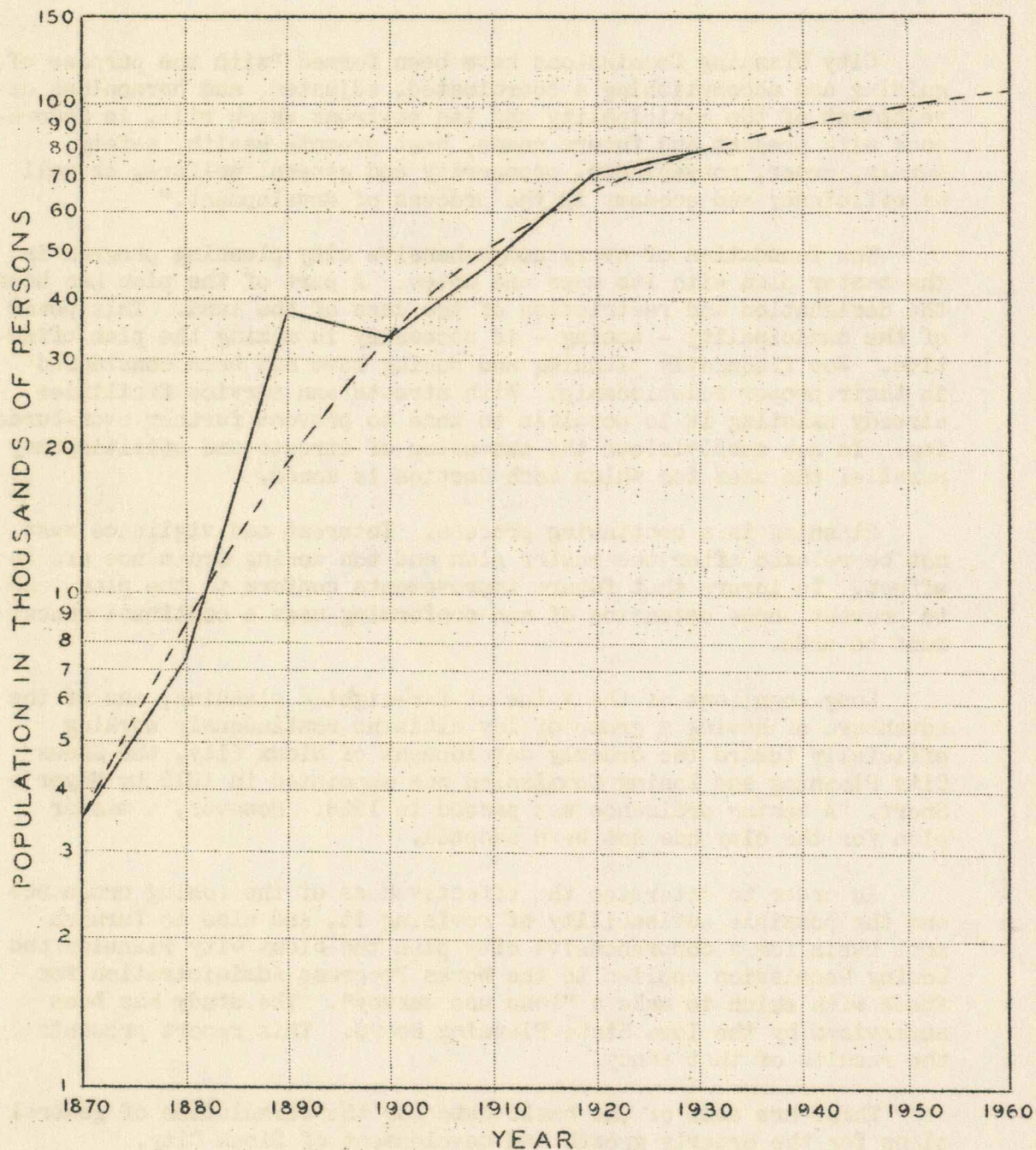
Planning is a continuing process. Interest and vigilance must not be relaxed after the master plan and the zoning ordinance are in effect. To insure that future improvements conform to the plan, and to prevent undue extension of non-conforming uses a continual check must be made.

Long cognizant of the value of far-sighted planning, and of the advantage of having a group of lay citizens continuously working officially toward the orderly development of Sioux City, the Sioux City Planning and Zoning Commission was appointed in 1918 by Mayor Short. A zoning ordinance was passed in 1928. However, a master plan for the city has not been adopted.

In order to determine the effectiveness of the zoning ordinance and the possible advisability of revising it, and also to furnish some basis for a comprehensive city plan the Sioux City Planning and Zoning Commission applied to the Works Progress Administration for funds with which to make a "land use survey". The study has been supervised by the Iowa State Planning Board. This report presents the results of that study.

These are some of the basic data for the formulation of general plans for the orderly growth and development of Sioux City.

SIOUX CITY, IOWA POPULATION TRENDS



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POPULATION

Of considerable importance in predicting future land use requirements is a correct analysis of population prospects and the probabilities of industrial growth or decline.

Most population authorities agree that the indications are for a pronounced slowing down of the rate of population growth in the United States, with a maximum population to be attained within the next 30 or 40 years.

Immigration, long a factor in the rapid growth of American cities, is now rigidly restricted. Urban birth rates generally are falling. Iowa cities are no exceptions. In order to maintain themselves cities must look to the rural areas where the birth rates are still relatively high.

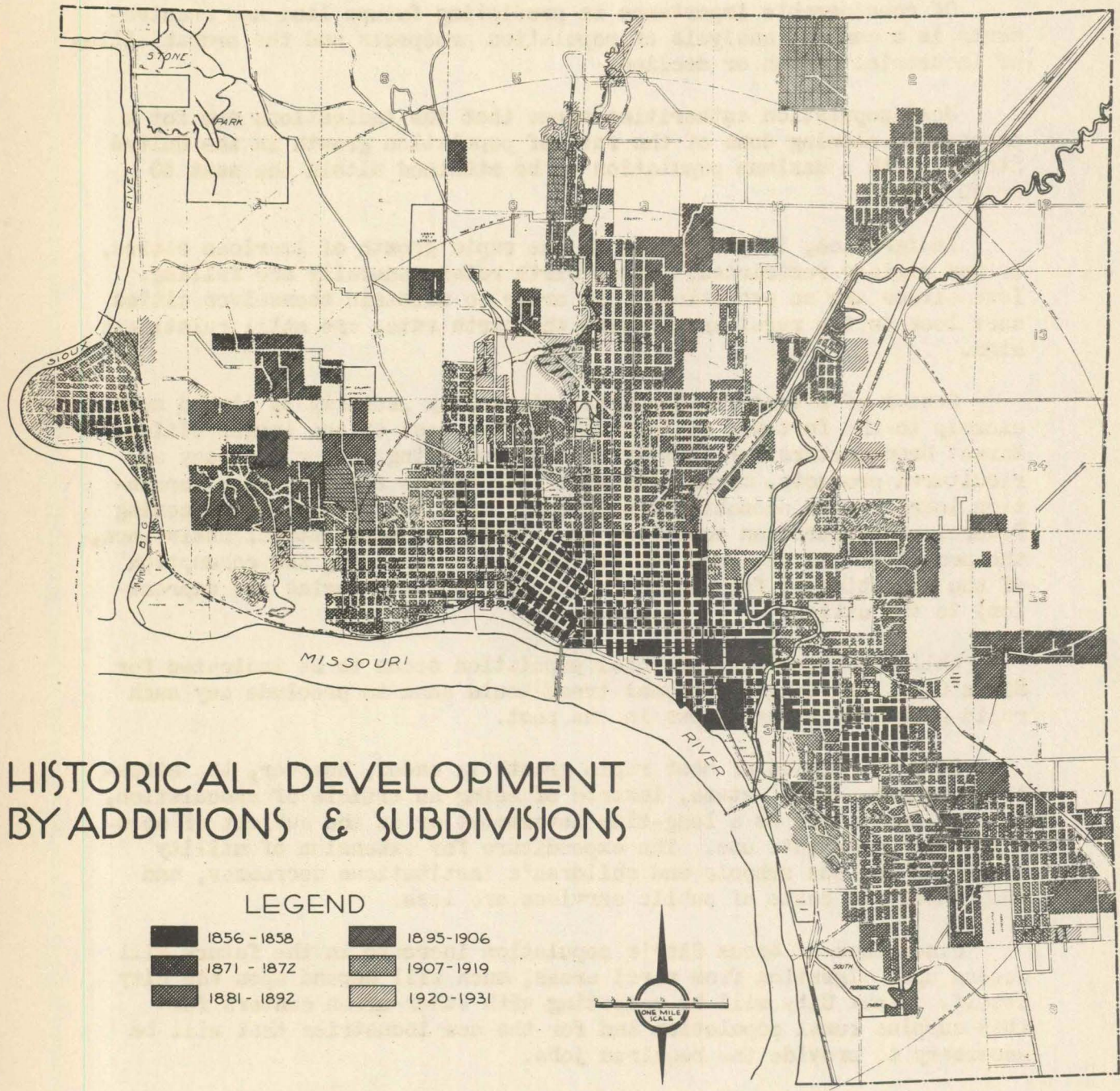
Center of a vast farming area, Sioux City probably is linked more closely to the fortunes of agriculture than most of the larger cities. Market headquarters for farm trade and processing center for many agricultural products, Sioux City must look to the farm for both population increase and economic development. With the present and incoming Federal administration committed to a policy of agricultural assistance, the possibilities are good for increased farm spending and resumption of the migration of farm youth (backed up on farms during the depression) to the cities.

While some increase in total population seems to be indicated for Sioux City, the larger national trend would seem to preclude any such rapid growth as it has known in the past.

Once the period of most rapid growth is ended, however, the situation changes. Real estate, instead of being an article of speculation, is considered more as a long-time investment or as the subject of acquisition for immediate use. The expenditure for extension of utility lines and for new schools and children's institutions decreases, and the consequent costs of public services are less.







Since much of Sioux City's population increase in the future will depend upon migration from rural areas, much will depend upon the city itself. Sioux City will be competing with other urban centers for this surplus rural population and for the new industries that will be necessary to provide the required jobs.

A great inducement to both industry and population should be an orderly, well planned city with adequate opportunities for employment, an attractive surrounding and cultural advantages.



HISTORICAL DEVELOPMENT BY ADDITIONS & SUBDIVISIONS

LEGEND

	1856 - 1858		1895-1906
	1871 - 1872		1907-1919
	1881 - 1892		1920-1931



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HISTORICAL DEVELOPMENT OF THE CITY BY SUBDIVISIONS

The original plat for Sioux City in 1856 extended on the west to within a few feet of Center Street. It was bounded on the north by 14th Street as far east as Jones Street; then south to 7th Street and east along 7th to Clark Street. From 7th and Clark Streets the boundary extended south to the section line between 1st Street and Grand Avenue and then east to the Floyd River. Other additions were platted within the next 2 years and by 1858 Sioux City represented the solid black portion of the map. Other subdivisions were made during these years but were vacated or replatted in following years. A small triangle of ground just east of the Illinois Central Railroad at 21st and Chambers Streets is all that remains of the Meek, Anderson, & Arthurs Subdivision of this early period.

The extent of the platted area was large enough to take care of the city for years to come. With the exception of 1871 and '72 when two of the present additions were laid out -- one as far north as 39th and Morgan Streets -- Sioux City did not expand until the '80s.

From 1881 until 1892 during a great real estate boom the city developed in all directions with a marked trend to the north between Clark and Summit Streets; to the southeast including most of Morningside as it is today; Leeds; and some subdivisions to the west which have not developed to this day.

Since this active period of the 80's the subdivisions added have been mostly filling in the vacant areas between those already platted. With the exception of Riverside the recent additions have been generally to the north of the central portion of the city.

The corporate limits of Sioux City have remained the same for nearly 50 years, but since they are very extensive they should be sufficient for the future needs of the city. Subdivisions of the future should not be developed until the normal growth requires it. Many additions have been platted in the past by hopeful real estate dealers only to be vacated a few years later.

CLASSIFICATION OF TOTAL CITY AREA IN ACRES BY URBAN LAND USES

Single Family Area	2,229.560	
Two Family Area	72.067	
Multi-Family Area	<u>67.372</u>	
Total Dwelling Area		2,368.999
Light Industry Area	145.341	
Heavy Industry Area	343.861	
Railroad Area	<u>518.766</u>	
Total Railroad and Industrial Area		1,007.968
Total Commercial Area		<u>165.380</u>
Total Privately Developed Area		3,542.347
Total Park and Playground Area		1,073.061
School Area	52.529	
Church Area	25.658	
City Property Area	17.185	
Cemetery Area	255.985	
Institutions & Clubs (including Colleges)	138.794	
Libraries, Public Golf Courses and Other Areas	<u>576.223</u>	
Total Public & Semi-Public Area		1,066.374
Total Street & Alley Area		<u>3,062.697</u>
Total Public Area		5,202.132
Total Developed Area		8,744.479
Total Vacant Area		<u>20,377.324</u>
Total City Area		29,121.803

URBAN LAND USE

It is evident that in the interest of the community as a whole some restrictions must be placed upon the property owner's right to use his property in any way he might see fit. The law of supply and demand governs the amount of land needed for various purposes. Vacant buildings and those no longer used for their original purpose are sometimes an evidence of a disregard for this law.

Planning must be rationalized and related to a sound economic policy. The following data indicate the total area devoted to each particular land use at the present time and may be used as a basis for estimating the area needed in the future.

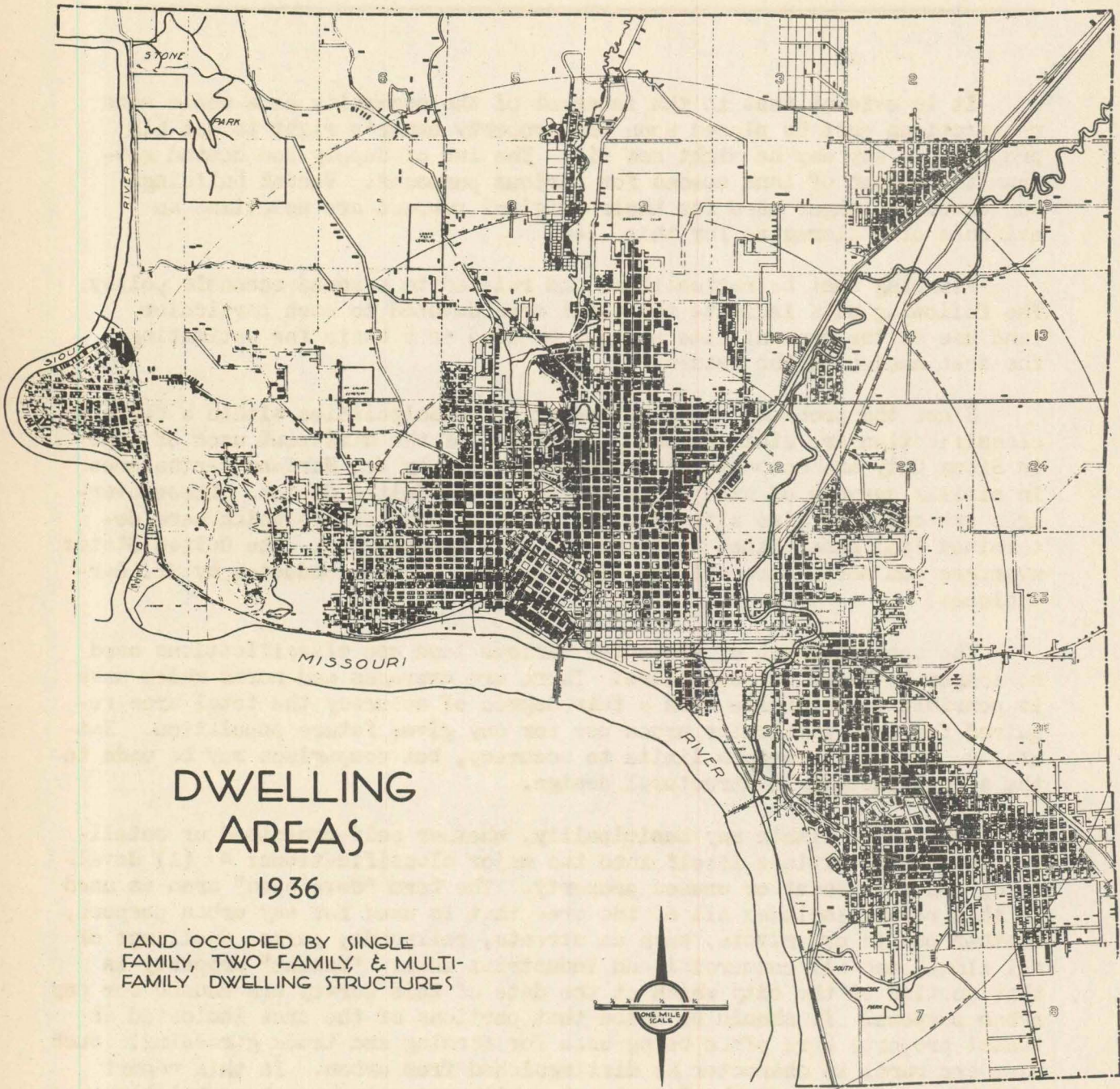
Since the problems and functioning of municipalities within a certain classification are similar, the percentages of the different uses of land in Sioux City are compared with those obtained by Mr. Harland Bartholomew in similar surveys of nine other cities of the United States. These averages are compared also with averages of other Iowa cities which were determined from generalized maps and are only approximate. The United States averages and norms were obtained in a general survey conducted by Mr. Bartholomew.

The apportionment of areas for various land use classifications need no longer be based on conjecture. There are averages and norms which make it possible to determine with a fair degree of accuracy the total area required for each particular urban use for any given future population. Naturally, there are certain limits to accuracy, but comparison may be made to the safety factors in structural design.

Urban land within any municipality, whether self-contained or satellite, naturally divides itself into two major classifications: * (1) developed, and (2) vacant or unused property. The term "developed" area as used in this report includes all of the area that is used for any urban purpose, whether public or private, such as streets, railroads, parks, dwellings of all kinds, and all commercial and industrial uses. "Vacant" property is that portion of the city which at the date of this survey was unused for any urban purpose. It should be noted that portions of the area indicated as vacant property were often being used for farming and truck gardening. Such uses are rural in character as distinguished from urban. In this report only those portions of the farm tracts which actually have been built upon have been considered as in urban use.

The developed area of any city logically may be subdivided into two separate classifications: (1) the area privately developed and (2) that used for public and semi-public purposes.

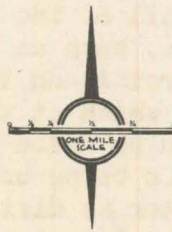
* The following discussion is based upon "Urban Land Uses", Bartholomew.



DWELLING AREAS

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LAND OCCUPIED BY SINGLE
FAMILY, TWO FAMILY, & MULTI-
FAMILY DWELLING STRUCTURES



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PRIVATELY DEVELOPED AREAS

The areas privately developed comprise all land which has been developed by private capital for strictly private use, and constitute a large portion of the average city. These areas may be subdivided according to the following uses:

1. Single-family Dwellings.
2. Two-family Dwellings.
3. Multi-family Dwellings.
4. Commerce.
5. Light Industry.
6. Heavy Industry.
7. Railroad.

The titles of these classifications are almost self-explanatory. The single-family dwelling is that which is used by one family alone. This general classification, because of the method of procedure in the field survey, also includes those residences which house incidentally one or two roomers. All rooming houses which are operated primarily as such, and which are sufficiently well advertised by signs and other methods so that their presence can be noted, are placed in the multi-family group.

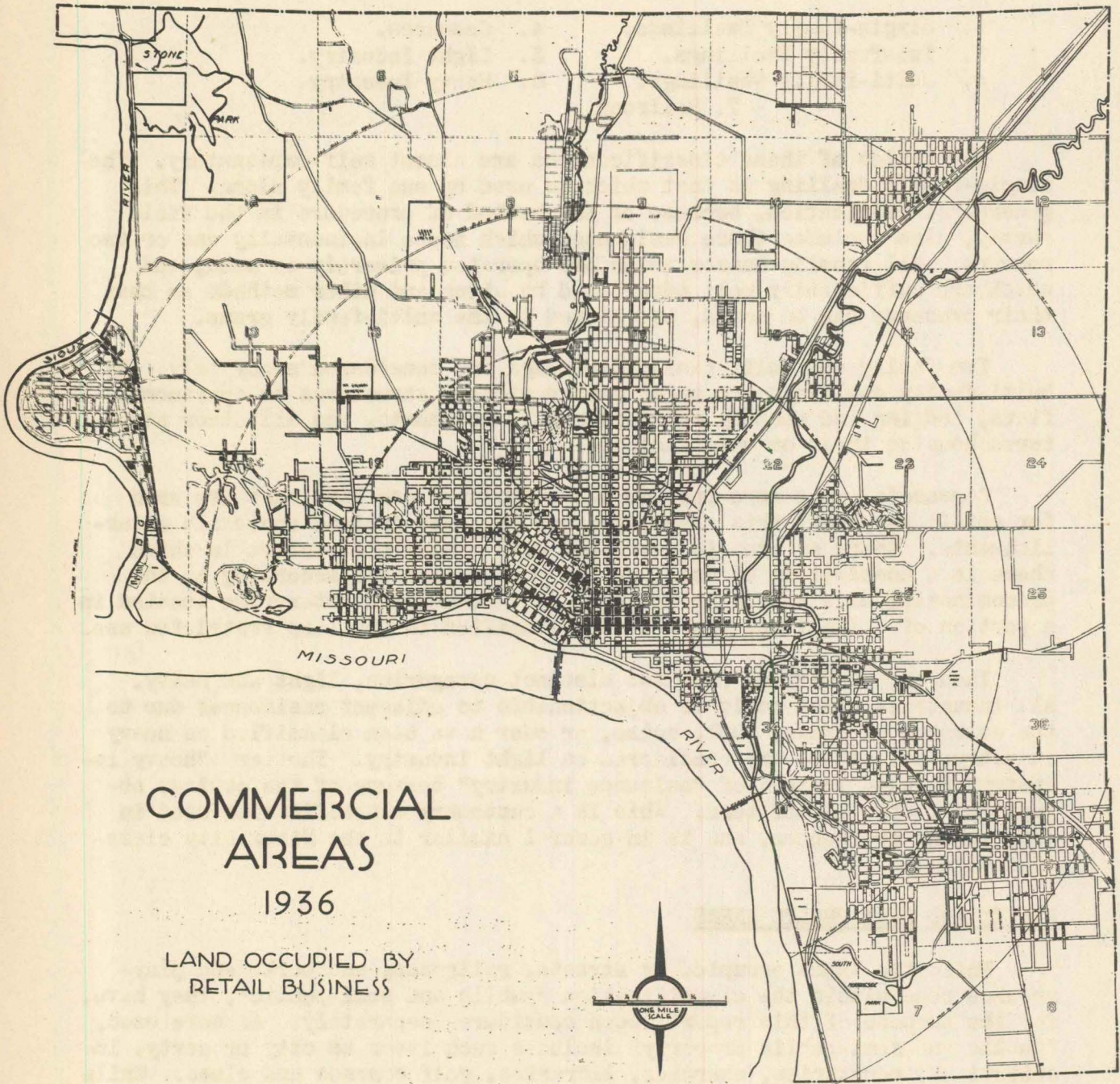
Two-family and multi-family dwellings are considered separately. By multi-family dwellings are meant such residence structures as apartments, flats, lodging and rooming establishments, tenements, and all other structures housing three or more families.

Commercial uses here include all structures and land that are used for retail purposes; this classification does not include wholesale establishments. Where an area is developed with a single structure in which there is a combination of uses, it has been designated according to the predominating use, except in the case of a commercial enterprise located in a portion of a dwelling, where it is classified in the less restricted use.

Industry is divided into two distinct categories, light and heavy. All industries which could be objectionable to adjacent residences due to the emission of smoke, dust, noise, or odor have been classified as heavy industry; all others are considered as light industry. The term "heavy industry" is used instead of "nuisance industry" because of the obvious objections to the latter term. This is a customary classification used in most zoning ordinances, and is in general similar to the Sioux City classifications.

PUBLIC AND SEMI-PUBLIC AREAS

While the lands occupied by streets, railroads, and parks and playgrounds come within the classification "public and semi-public", they have, for the purpose of this report, been considered separately. As here used, "public and semi-public property" includes such items as city property, institutions, cemeteries, churches, libraries, golf courses and clubs. While all of these items are not necessarily available to the entire population, they are so used by a portion of the public that even those privately owned assume a quasi-public character. In this survey, schools (public and parochial, grade and high schools), churches, libraries, cemeteries, and city property have been tabulated separately.



COMMERCIAL AREAS

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LAND OCCUPIED BY
RETAIL BUSINESS



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SIOUX CITY LAND USE

It is interesting to note in Table No. 1 that Sioux City has almost the same population as Binghamtown, N. Y., at the date of its survey, and yet the area of Sioux City is 350 per cent greater than that of Binghamtown.* Its area is slightly larger than that of Fort Worth, Texas, but the population is about one-half that of Fort Worth at the date of its survey. There are more than 36 acres for every 100 persons in Sioux City. This is more than any other city with which Sioux City is compared, and about two and one-half times greater than the United States average. Only 30 per cent of the city is developed, but 11 developed acres for each 100 persons is more than any of the other cities and compares most favorably with the U. S. norm of 11.1 and is much better than the U. S. average of 8.2 acres per 100 persons.

The illustration of residential areas includes all property used for dwelling purposes -- one-family, two-family and multi-family dwellings.

Statistics tabulated in Table No. 2 show that the 2.8 acres of land occupied by single-family dwellings for every 100 persons in Sioux City is slightly greater than the average of the ten selected cities. Its 6.4 buildings per acre is slightly less than the average. In general the amount of land for each residence is larger than the average. There is, however, evidence of serious overcrowding in certain districts of the city.

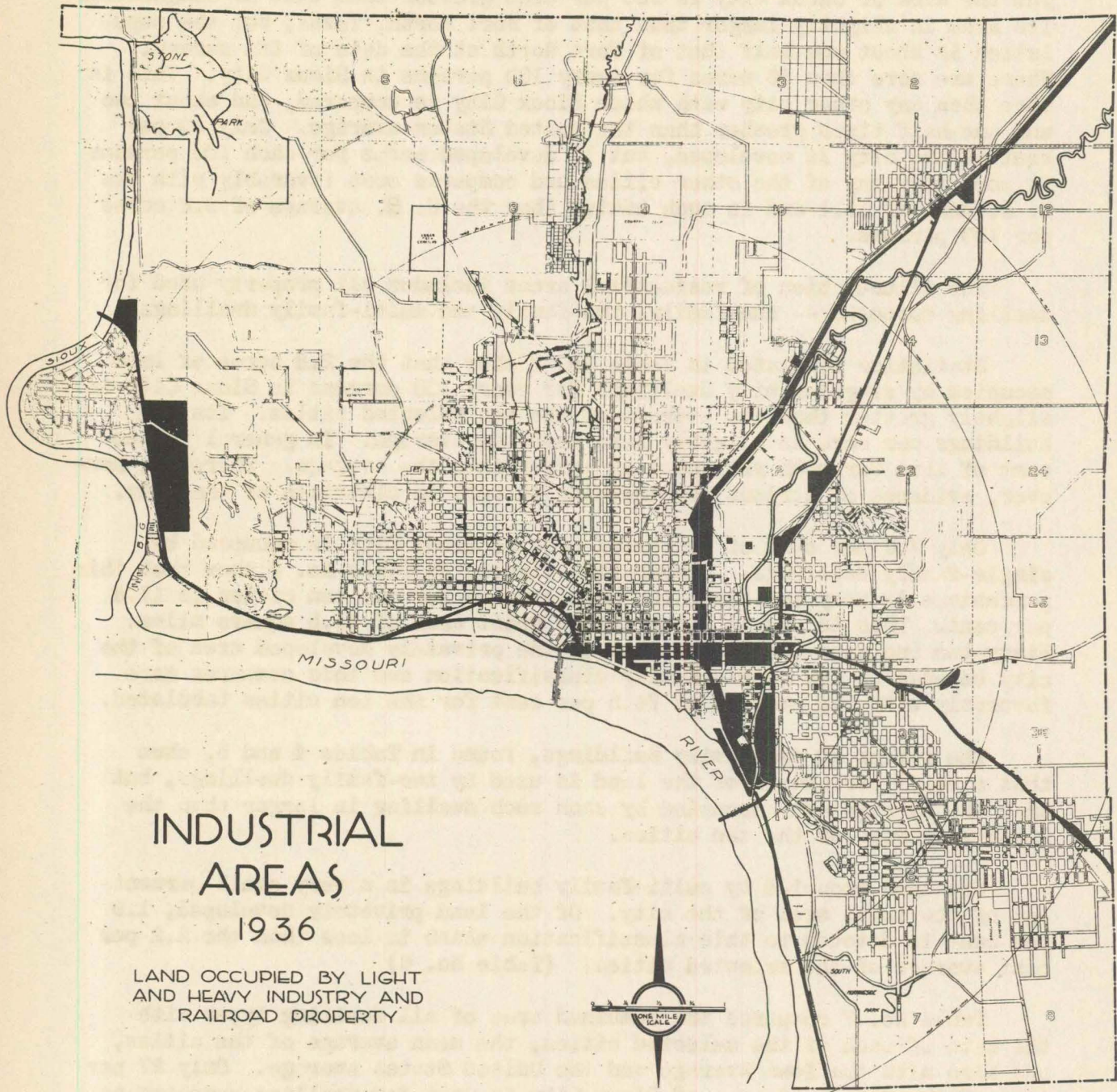
Only 7.6 per cent of the total area of Sioux City is occupied by single-family dwellings. Comparative figures in Table No. 3 show that this percentage is very low since the mean average for the ten cities is 17.4 per cent. This is due to Sioux City's great area of 45.5 square miles. Sixty-two and nine-tenths per cent of the privately developed area of the city belongs to the single-family classification and this compares more favorably with the average of 74.8 per cent for the ten cities tabulated.

The ratios of two-family buildings, found in Tables 4 and 5, show that a small percentage of the land is used by two-family dwellings, but that the average area occupied by each such dwelling is larger than the general average of the ten cities.

The land occupied by multi-family buildings is a very small percentage of the total area of the city. Of the land privately developed, 1.9 per cent is devoted to this classification which is less than the 2.2 per cent average of the selected cities. (Table No. 6)

Table No. 7 compares the combined area of all dwelling types with the data of each of the selected cities, the mean average of the cities, and also with the Iowa Average and the United States Average. Only 27 per cent of the developed area of Sioux City is used for dwelling purposes as compared with 39.3 per cent for the United States average. The percentage of the total dwelling area occupied by one-family dwellings is greater than the average of the selected cities. While the percentage of the total dwelling area used for two-family buildings is less than the average, the percentage of multi-family building area is the same as the average of the ten cities.

* Tables referred to are included in the appendix.



**INDUSTRIAL
AREAS
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LAND OCCUPIED BY LIGHT
AND HEAVY INDUSTRY AND
RAILROAD PROPERTY



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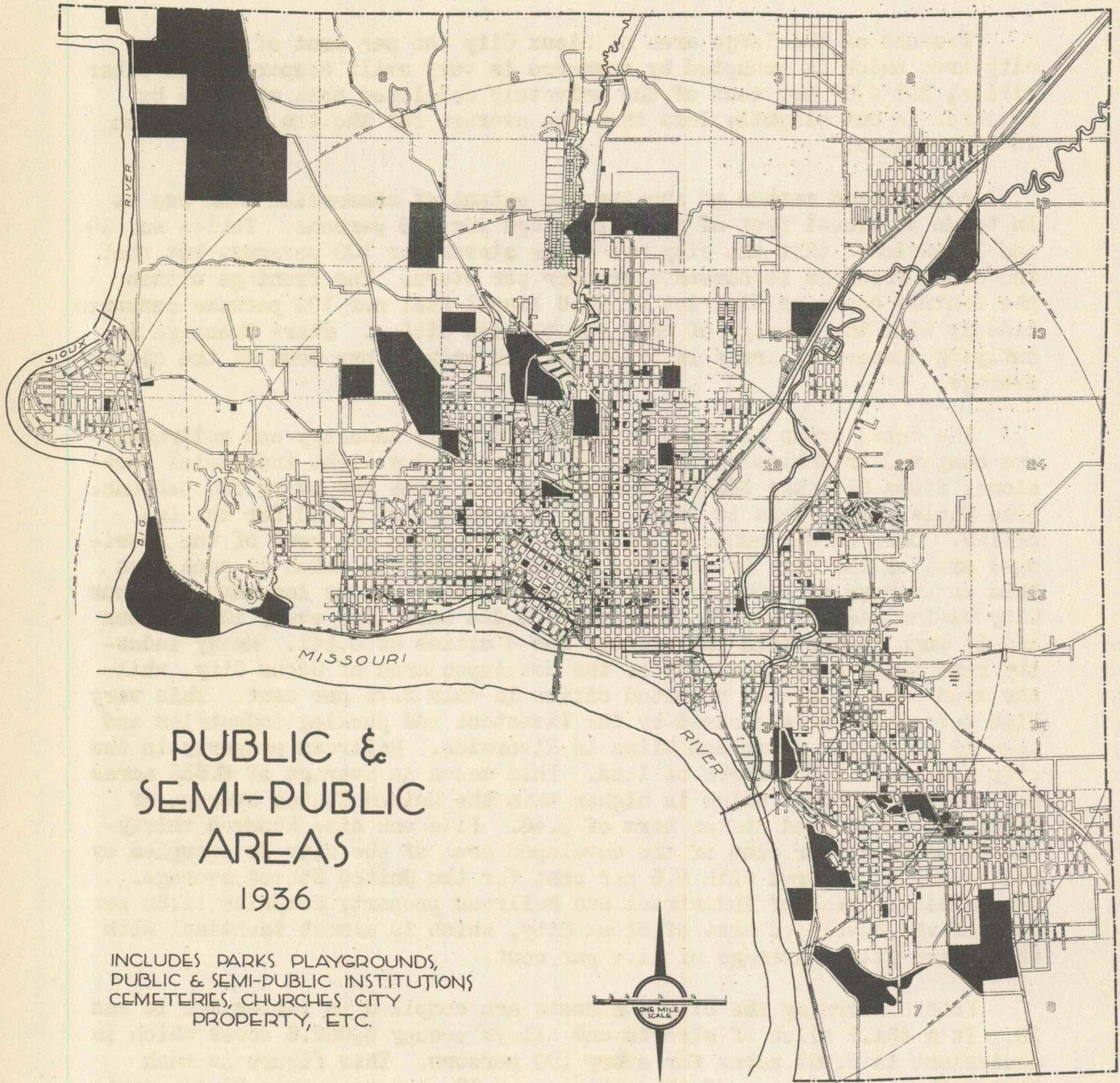
Sioux City has 1.8 retail stores for every 100 persons, whereas the average of the ten cities listed in Table No. 8 is 2.4 stores. The 0.209 acres of commercial land for every 100 persons is higher than the cities' average, and also higher than the United States average and norm, which are both 0.18 acres per 100 persons. The 9.8 stores per acre of commercial area indicates that the average store in Sioux City is larger, or at least occupies a greater lot area, than those in the other cities whose average is 13.7 stores per acre of commercial area.

Because of the large area of Sioux City the per cent of the total city area which is occupied by commerce is very small compared with other cities, but 4.67 per cent of the privately developed area occupied by commerce is but slightly less than the average for the ten cities shown in Table No. 9.

A preferred method of showing the extent of commercial land use is in terms of lineal feet of store frontage per 100 persons. Tables No. 10 and 11 indicate that the city has fewer stores per 100 persons, but that the store frontage is somewhat greater per store. The frontage within the Central business District of 27.6 lineal feet per 100 persons compares closely with the average of 28.2 for the ten cities. Store frontage in outlying commercial areas in Sioux City is only 75 per cent of the cities' average.

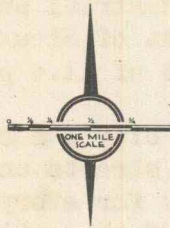
The total areas occupied by light and heavy industry and railroads are compared in Tables No. 12 and 13. Considering light industrial area alone, Sioux City has 145.341 acres or 0.184 acres for every 100 persons. (See Table 22A.) This is lower than the average of 0.200 for the ten cities. One and six hundred sixty-two thousandths per cent of the developed area of the city is occupied by light industry, which is much less than an average of 2.56 per cent for the cities. Heavy industry in Sioux City claims 343.861 acres. This means 0.434 acres for every 100 persons and is much higher than the average for 8 cities of 0.241. Heavy industry represents 3.932 per cent of the developed area of Sioux City, while the mean average of the selected cities is only 2.75 per cent. This very high percentage is explained by the livestock and packing industries and also by the brick yards and kilns in Riverside. Railroad property in the city comprises 518.8 acres of land. This makes an average of 0.655 acres for each 100 persons which is higher than the United States average of 0.463 and the United States norm of 0.46. Five and nine hundred thirty-two thousandths per cent of the developed area of the city is occupied by railroads as compared with 5.5 per cent for the United States average. The combined areas of Industrial and Railroad property comprise 11.52 per cent of the developed area of Sioux City, which is almost identical with the United States Average of 11.4 per cent.

Data concerning the city's Streets are compiled in Tables No. 14 and 15. It's 461.5 miles of streets and alleys occupy 3,062.6 acres which is equivalent to 3.867 acres for every 100 persons. This figure is much larger than the average of the cities -- 2.66, and more than 50 per cent greater than the United States norm with 2.4. There are 0.582 miles of streets in Sioux City for every 100 persons, which is much greater than any of the other cities tabulated. This of course makes a very expensive item for the city to maintain. Ten and one hundred forty-two thousandths



PUBLIC &
SEMI-PUBLIC
AREAS
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INCLUDES PARKS PLAYGROUNDS,
PUBLIC & SEMI-PUBLIC INSTITUTIONS
CEMETERIES, CHURCHES CITY
PROPERTY, ETC.



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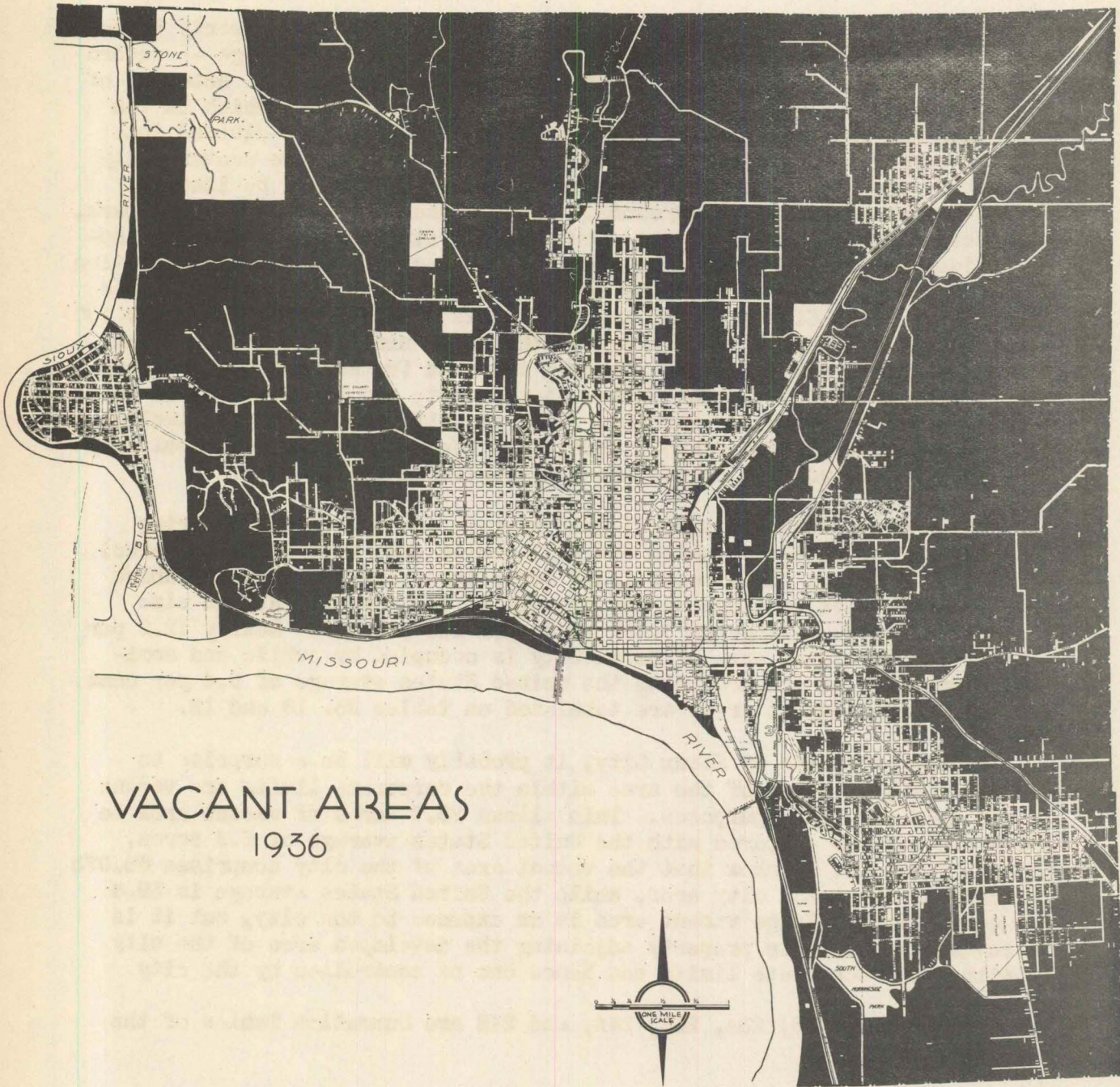
miles of streets and alleys for each square mile of total city area is low because of the small percentage of the total area which is developed. Thirty-five per cent of the developed area of the city is occupied by streets. This percentage is very close to the average of the ten cities of 34.1 per cent, and also to the United States average of 33.6 per cent.

Sioux City has an abundance of parks and playgrounds -- nearly three times as many acres per 100 persons as the United States average -- according to the comparative figures shown in Tables No. 16 and 17. However, of the 1,073 acres, approximately 735 acres are in Stone Park, which in the last year has become a state park. If these 735 acres were divided into smaller parks and distributed about the city where they were conveniently reached by the large numbers of residents, Sioux City would be ideally supplied with parks and playgrounds. Since Stone Park now is a state park, and because it is located in one corner of the city away from the developed residential section, its area should be disregarded in any consideration of the effective area of the city devoted to parks and playgrounds. This would leave Sioux City with 338 acres of parks or 0.427 acres for every 100 persons, which is below the average of the other nine cities, whose mean average is 0.462 acres per 100 persons; and even further below the United States average of 0.479. The United States norm, and ideal ratio, is one acre of parks to every 100 persons. This classification does not include those playgrounds around schools which have been considered as school property and are included in public and semi-public classification.

Sioux City, with its several golf courses and cemeteries covering considerable area, has a public and semi-public area (exclusive of parks) of 1,066.374 acres. This means 1.347 acres for every 100 persons, which is more than twice as large as the average of the ten cities, and also the United States average of 0.622 acres per 100 persons. Nearly 12.2 per cent of the developed area of Sioux City is occupied by public and semi-public property as compared with the United States average of 5.4 per cent. Public and semi-public areas are tabulated on Tables No. 18 and 19.

To the residents of Sioux City, it probably will be a surprise to know that 20,377 acres of the area within the corporate limits are vacant -- not used for urban purposes. This allows 25.7 acres of vacant area to every 100 persons compared with the United States average of 6.8 acres. Data in Table No. 22 show that the vacant area of the city comprises 69.973 per cent of the total city area, while the United States average is 39.8 per cent. Such a large vacant area is an expense to the city, but it is an advantage that this property adjoining the developed area of the city is within the corporate limits and hence can be controlled by the city.

Tables 22A, 22B, 23A, 23B, 24A, and 24B are Summation Tables of the preceding data.



VACANT AREAS
1936



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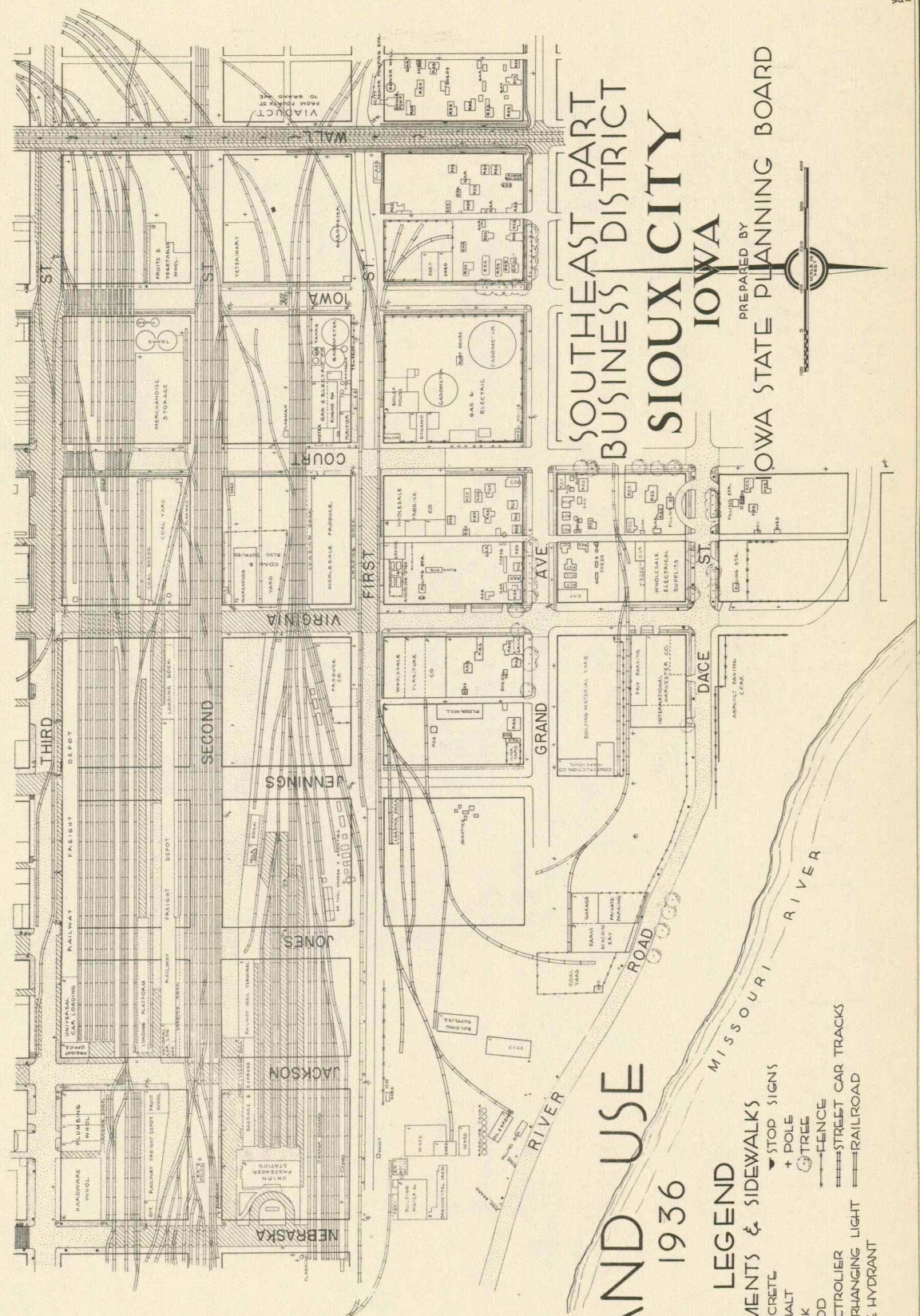
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CENTRAL BUSINESS DISTRICT

The area devoted to the principal commercial enterprises of the city is designated as the Central Business District. The existing land use within this area is shown by four large-scale maps.

In addition to their part in the land use studies, these maps can be used in parking studies and recommendations, street and sidewalk improvements, a civic center development, or a new union railroad terminal and track layout. They also might be used as base maps for any studies or proposals concerning the Central Business District.

A compact and uniformly developed business district is not only more convenient and conducive to more sales, but also protects the investment of those already centrally located by insuring that the center of the trading area will not move.



SOUTHEAST PART
BUSINESS DISTRICT
SIOUX CITY
IOWA

PREPARED BY
IOWA STATE PLANNING BOARD

LAND USE
1936

- LEGEND**
- PAVEMENTS & SIDEWALKS
 - CONCRETE
 - ASPHALT
 - BRICK
 - WOOD
 - STOD SIGNS
 - POLE
 - TREE
 - FENCE
 - ELECTROLIER
 - OVERHANGING LIGHT
 - FIRE HYDRANT
 - STREET CAR TRACKS
 - RAILROAD

LAND USE

1936

NORTHWEST PART BUSINESS DISTRICT SIOUX CITY IOWA

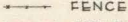
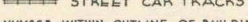
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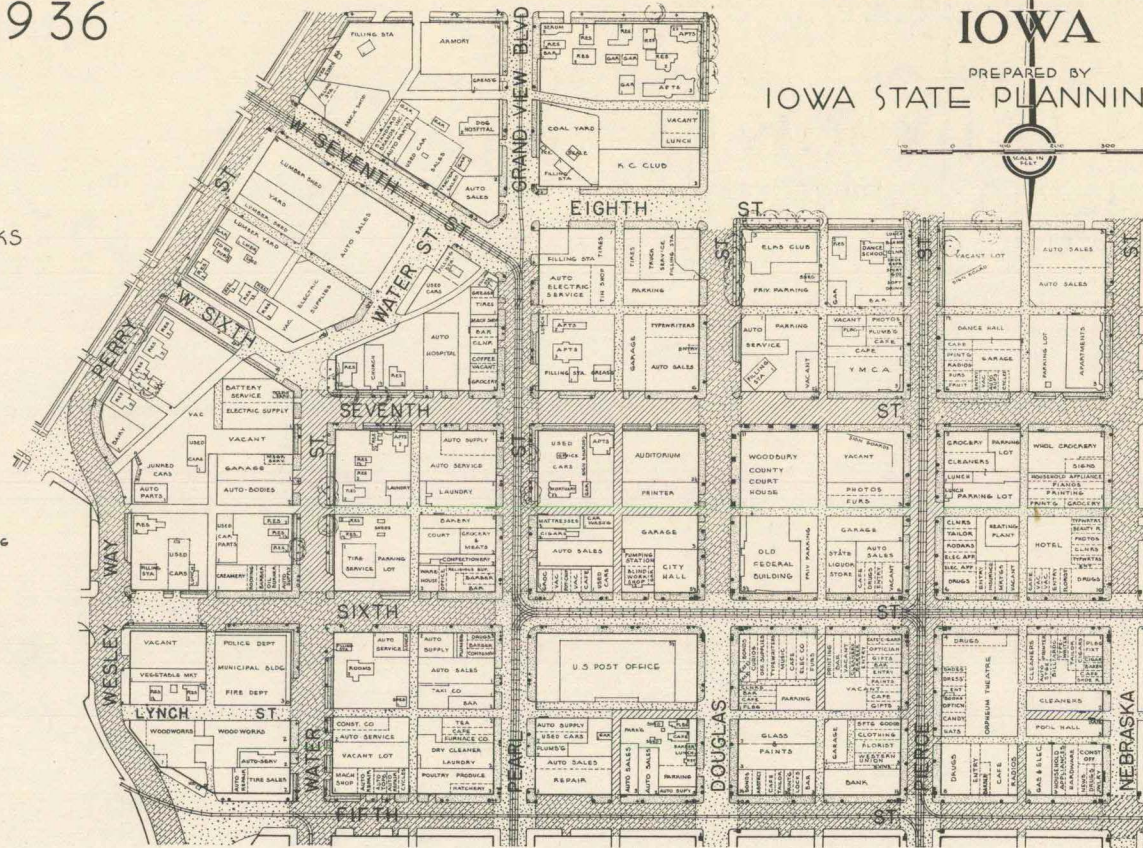
LEGEND

PAVEMENTS & SIDEWALKS

-  CONCRETE
-  ASPHALT
-  BRICK

-  ELECTROLIER
-  OVERHANGING LIGHT
-  FIRE HYDRANT
-  STOP & GO SIGNAL
-  STOP SIGN
-  POLE
-  TREE

-  FENCE
-  STREET CAR TRACKS
- NUMBER WITHIN OUTLINE OF BUILDING
INDICATES NUMBER OF STORIES



LAND USE

1936

SOUTHWEST PART BUSINESS DISTRICT SIOUX CITY IOWA

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LEGEND

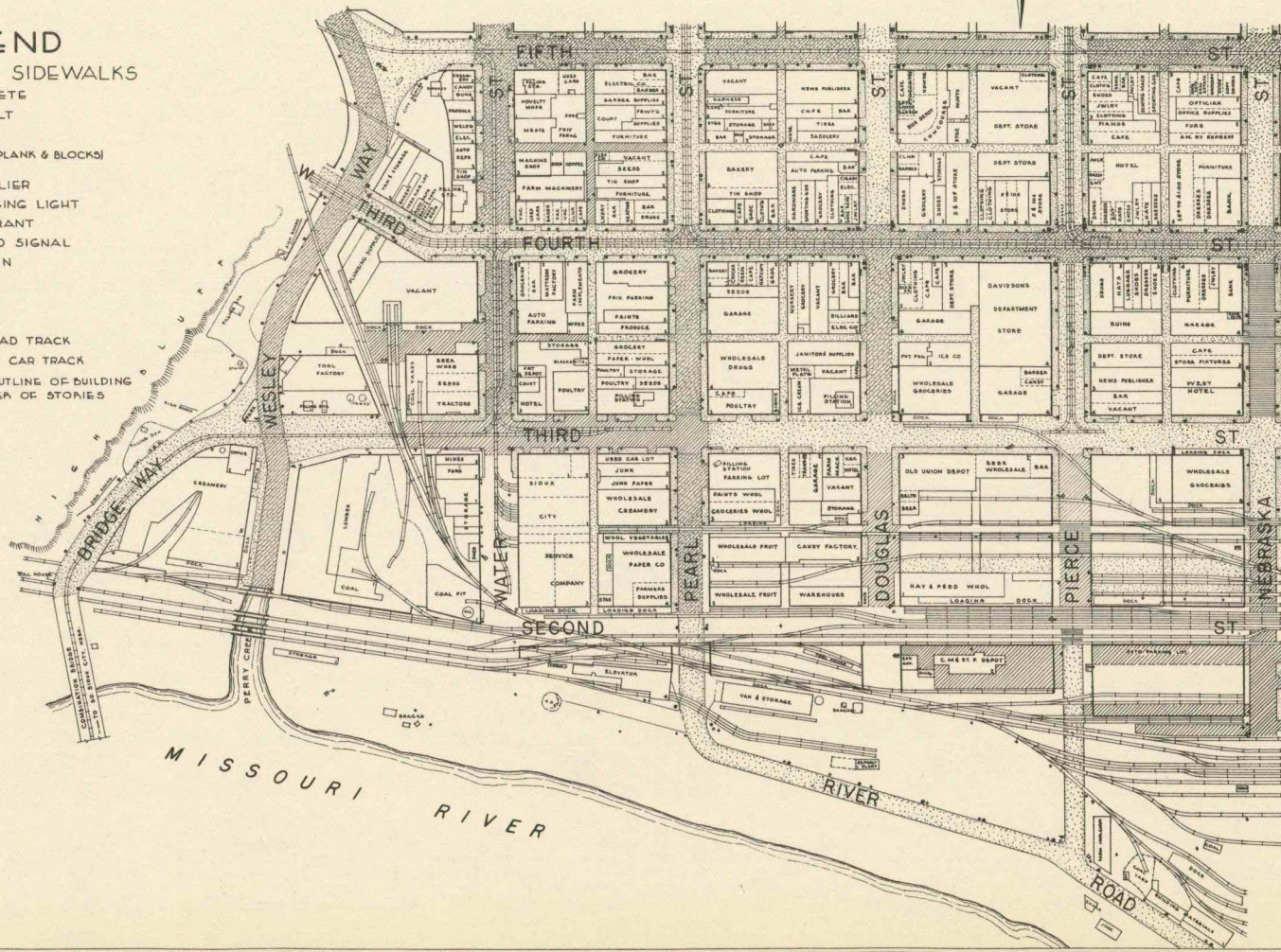
PAVEMENTS & SIDEWALKS

- CONCRETE
- ASPHALT
- BRICK
- WOOD-(PLANK & BLOCKS)

- ELECTROLIER
- ⊕ OVERHANGING LIGHT
- FIRE HYDRANT
- ⬇ STOP & GO SIGNAL
- ▼ STOP SIGN
- ⊙ TREE
- + POLE

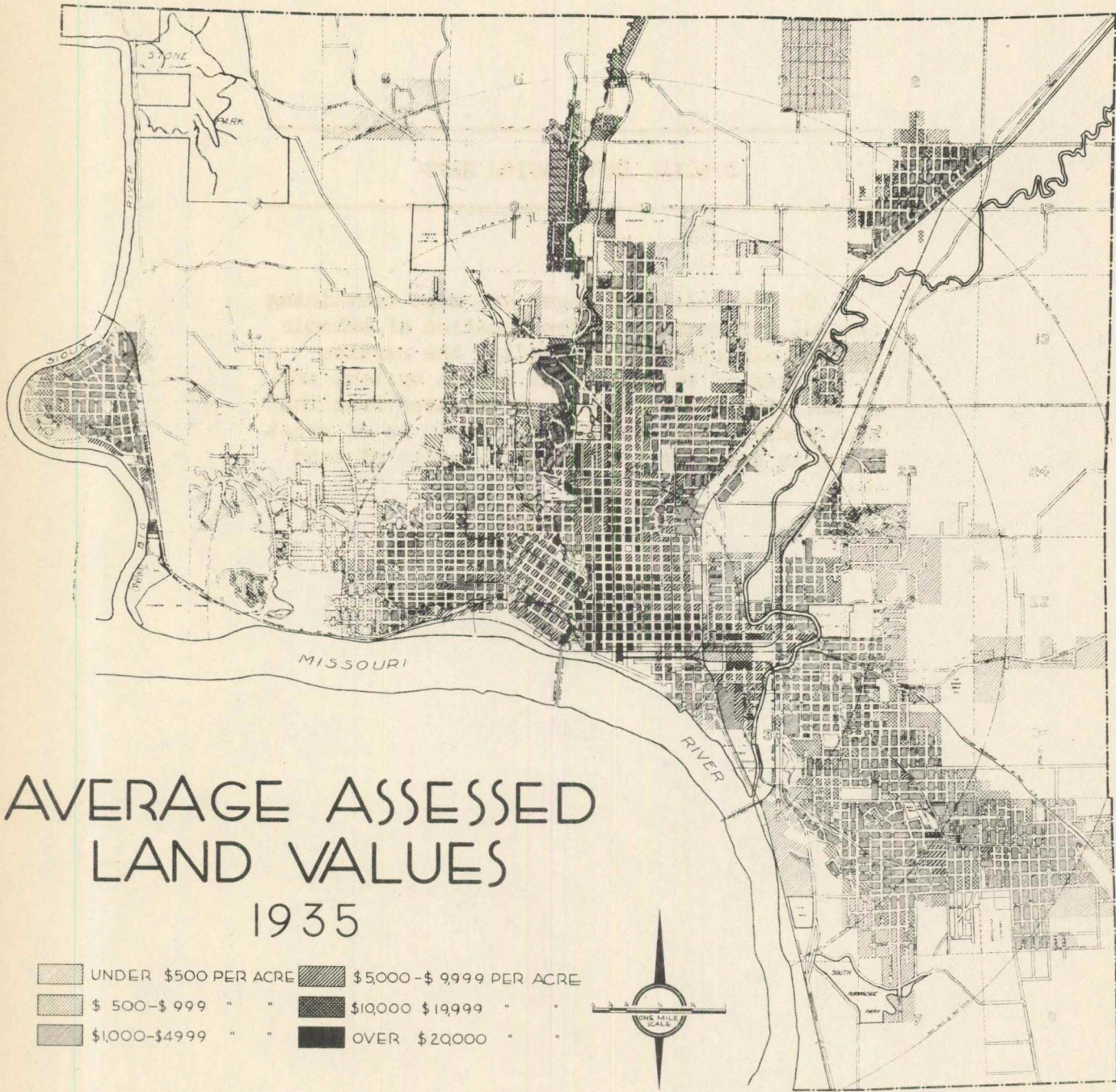
- FENCE
- RAILROAD TRACK
- STREET CAR TRACK

NUMBER WITHIN OUTLINE OF BUILDING INDICATES NUMBER OF STORIES



SPECIAL INFORMATION MAPS

On the following pages are maps containing special information on the location of schools and the distribution of pupils, the service facilities of the city, the street system, and so on. These maps have been prepared from the most recent information, and should be of great value in grasping the broader aspects of land use.



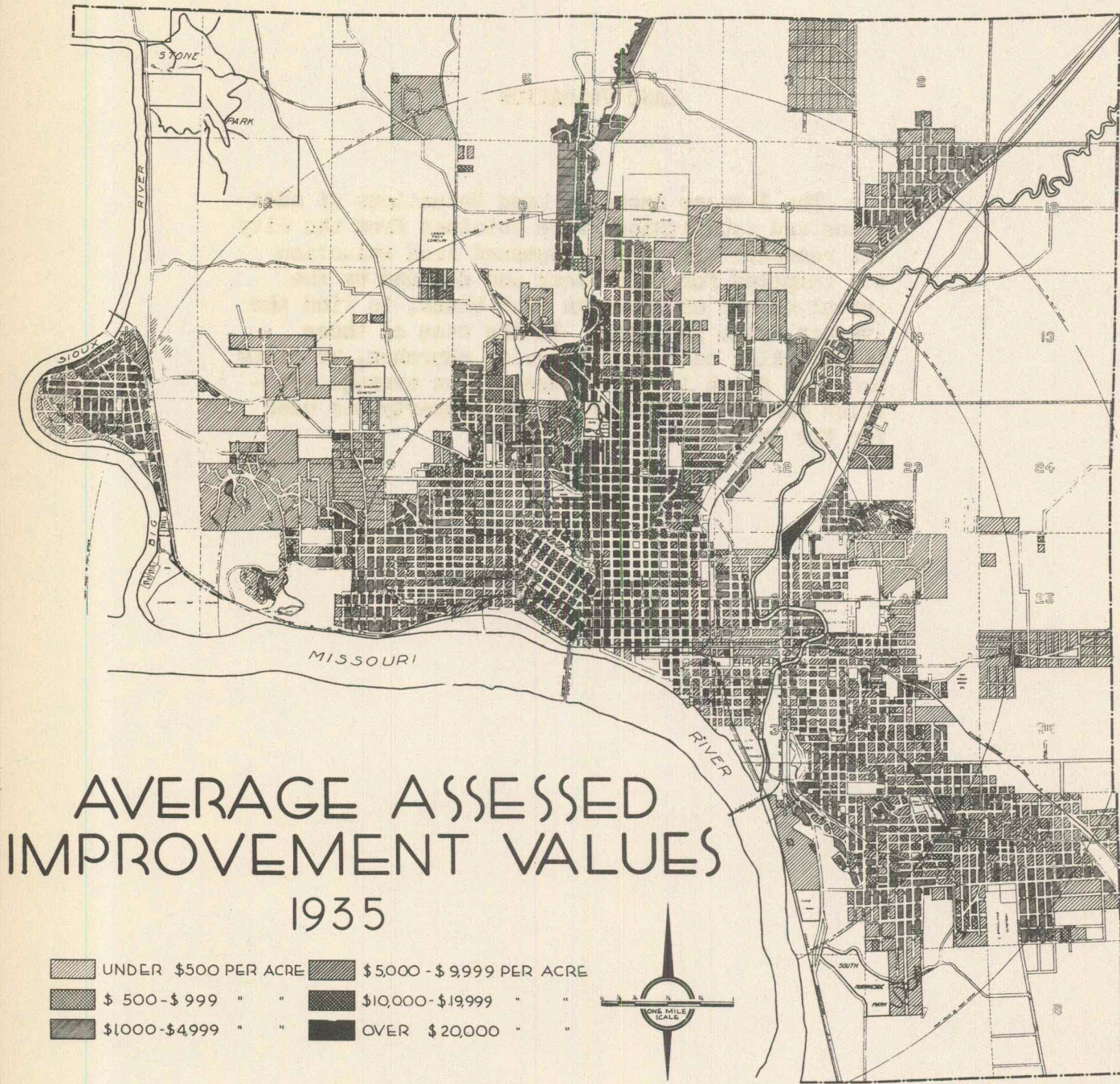
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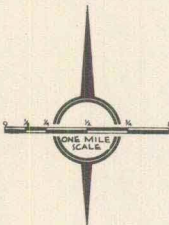
LAND VALUATION

The Average Assessed Land Valuations of additions and subdivisions were obtained from the city tax records. The total assessed land valuation was compiled for each block and divided by the actual number of acres in that block, to find the average value per acre. In the case of those blocks which contained schools, churches, or other property which is not assessed, the average valuation for the remainder of the property was used for the entire block.



AVERAGE ASSESSED IMPROVEMENT VALUES 1935

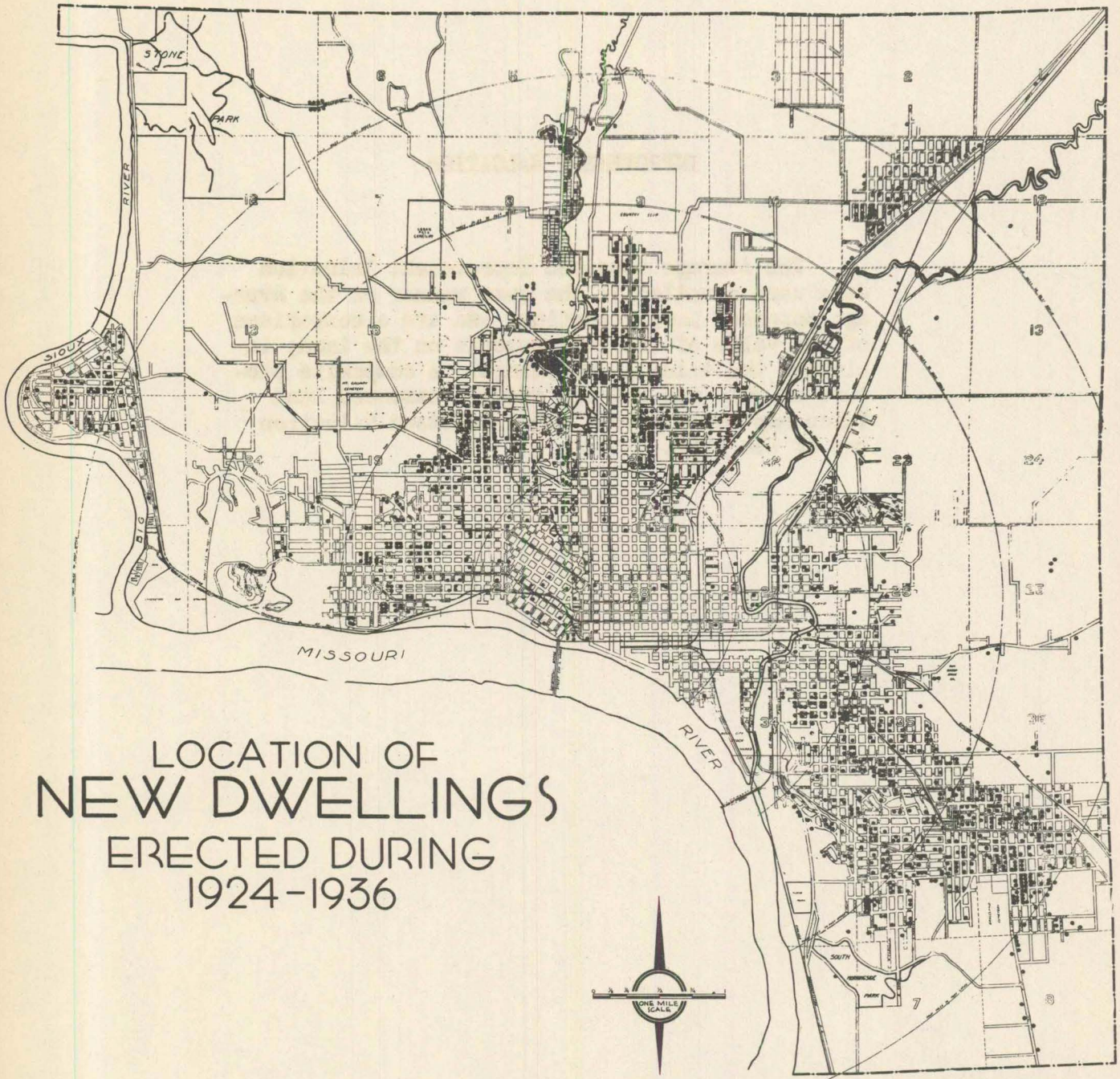
	UNDER \$500 PER ACRE		\$5,000 - \$9,999 PER ACRE
	\$500 - \$999 " "		\$10,000 - \$19,999 " "
	\$1,000 - \$4,999 " "		OVER \$20,000 " "



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IMPROVEMENT VALUATION

The Average Assessed Improvement Valuation data were compiled in the same manner as the Average Assessed Land Valuation, and are a comparison of the value of the improvements on the land, including the value of buildings. A composite picture of this map and the Average Assessed Land Value map would give a total assessed valuation map of the city.



LOCATION OF
NEW DWELLINGS
 ERECTED DURING
 1924-1936

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NEW RESIDENCES

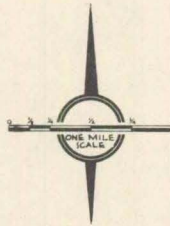
The trend of the location of new residences built within the last two years in Sioux City is typical of the general trend of the last twelve years. Morningside has enjoyed a general growth along with the central portion of the city north of 20th Street. Sunset View addition has been built up in the last few years with a fine class of medium sized homes.

LOCATION OF GRADE SCHOOLS AND DISTRIBUTION OF STUDENTS 1936

LEGEND

- PUBLIC GRADE SCHOOL
- ⊕ PAROCHIAL SCHOOL
- ▨ AREA OF INFLUENCE (ONE HALF MILE RADIUS)
- PUBLIC SCHOOL DISTRICT BOUNDARY

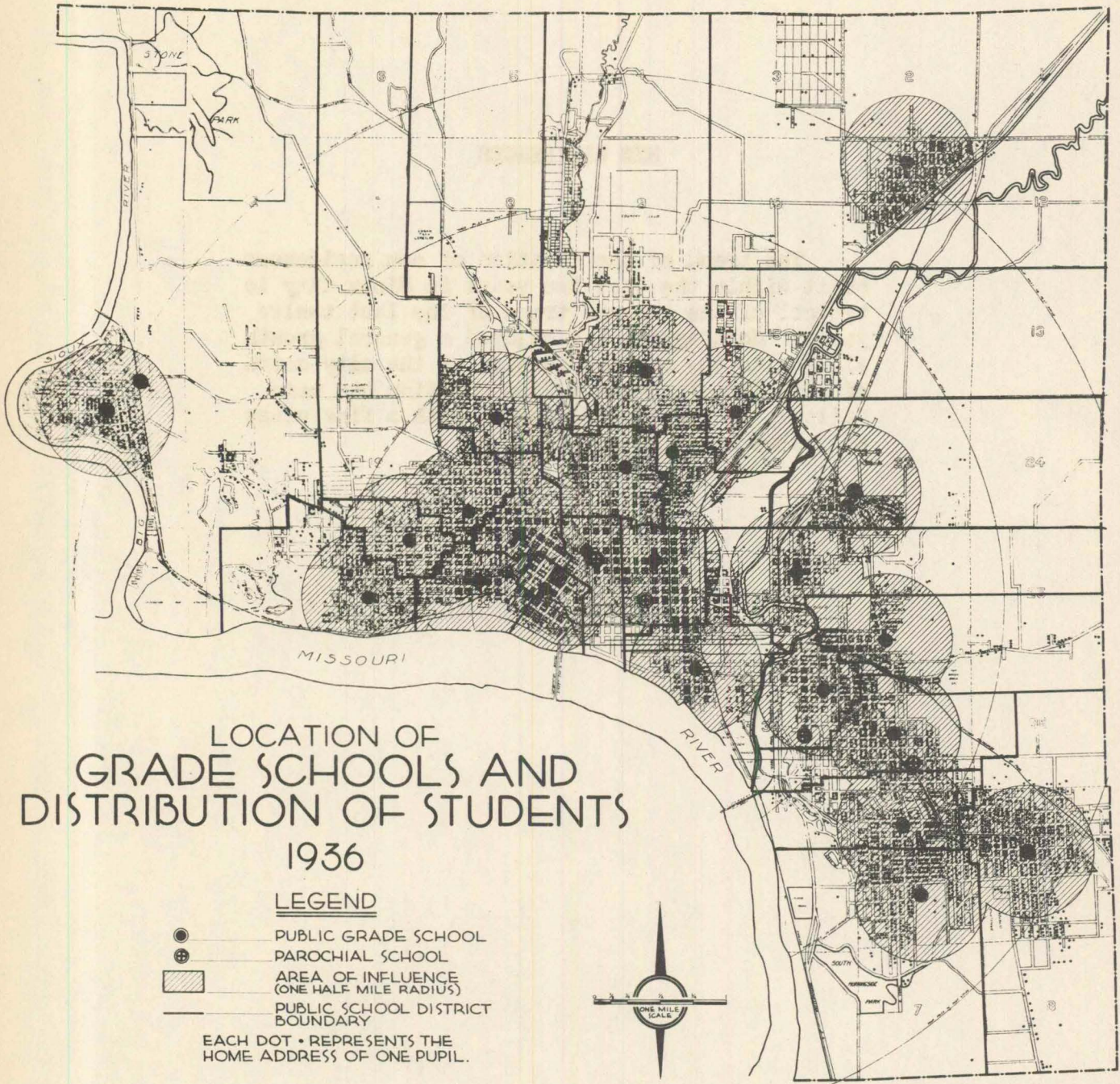
EACH DOT • REPRESENTS THE HOME ADDRESS OF ONE PUPIL.



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GRADE SCHOOLS




The accompanying map spots the location of all public and parochial grade schools. The solid black lines are the limits of the districts for each of the public schools. Each dot represents the home address of one public grade school pupil.

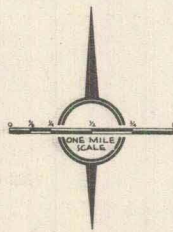
The ideal radius of influence for a grade school is one-half mile, -- in other words, grade school students should not have to walk farther than one-half mile to attend school.

Because Sioux City is so large and sparsely settled the city presents a difficult school situation. In some cases pupils live as far as three or four miles from the closest school. These are, however, taken to school in school buses.

LOCATION OF JUNIOR HIGH SCHOOLS & DISTRIBUTION OF STUDENTS 1936

LEGEND

-  JUNIOR HIGH SCHOOL
-  AREA OF INFLUENCE (ONE MILE RADIUS)
-  DISTRICT BOUNDARY
- EACH DOT • REPRESENTS THE HOME ADDRESS OF ONE PUPIL



NOTE
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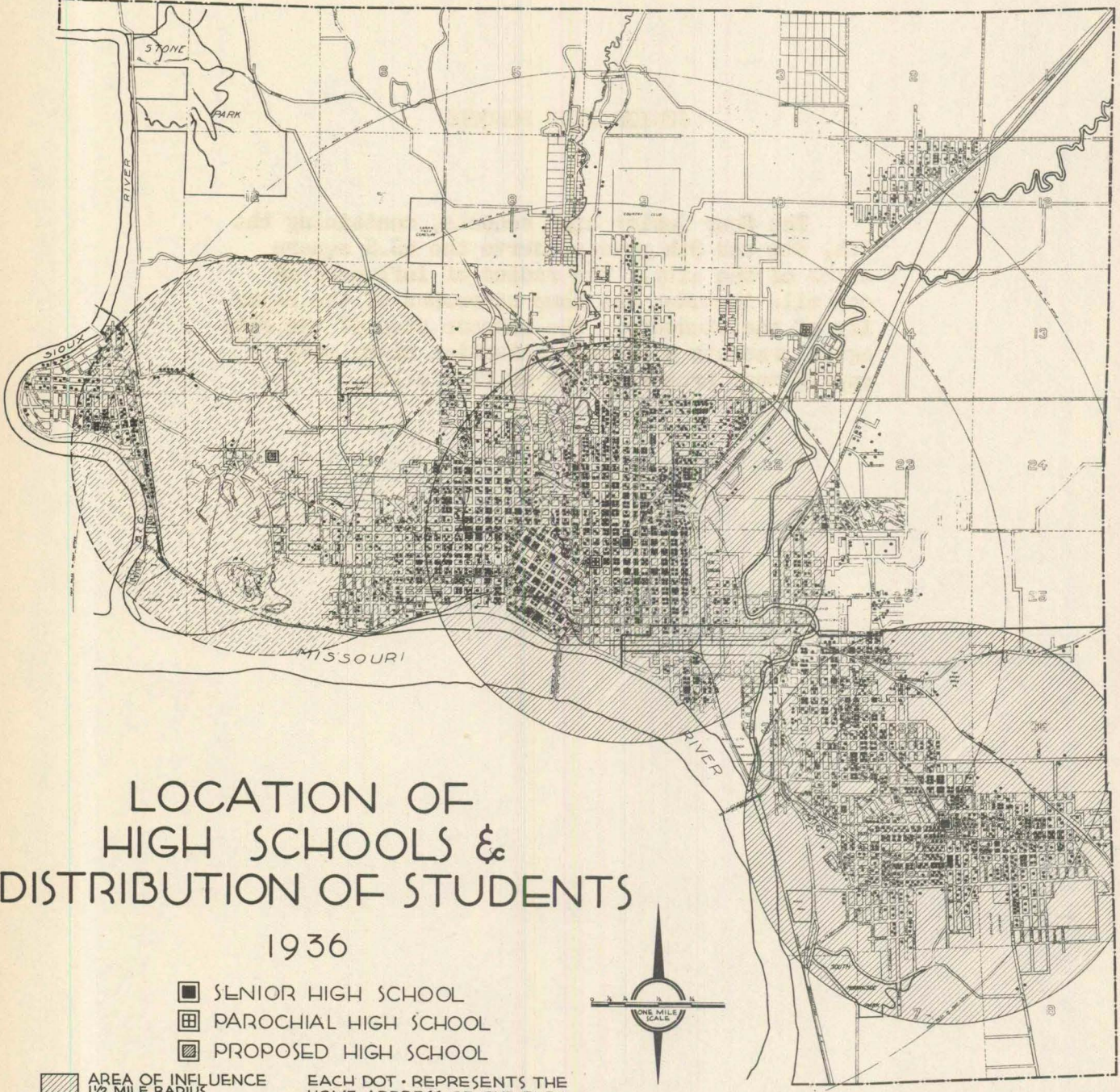
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JUNIOR HIGH SCHOOLS

The four junior high schools, containing the 7th, 8th and 9th grades, serve the 45.5 square miles of the city. The radius of influence of one mile includes the home addresses of the majority of the students. The extreme size of the city again presents a serious situation since many pupils must travel as far as five miles.



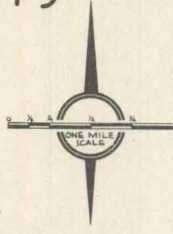
LOCATION OF HIGH SCHOOLS & DISTRIBUTION OF STUDENTS

1936

- SENIOR HIGH SCHOOL
- ▣ PAROCHIAL HIGH SCHOOL
- ▤ PROPOSED HIGH SCHOOL

▨ AREA OF INFLUENCE
1 1/2 MILE RADIUS

EACH DOT REPRESENTS THE
HOME ADDRESS OF ONE PUPIL



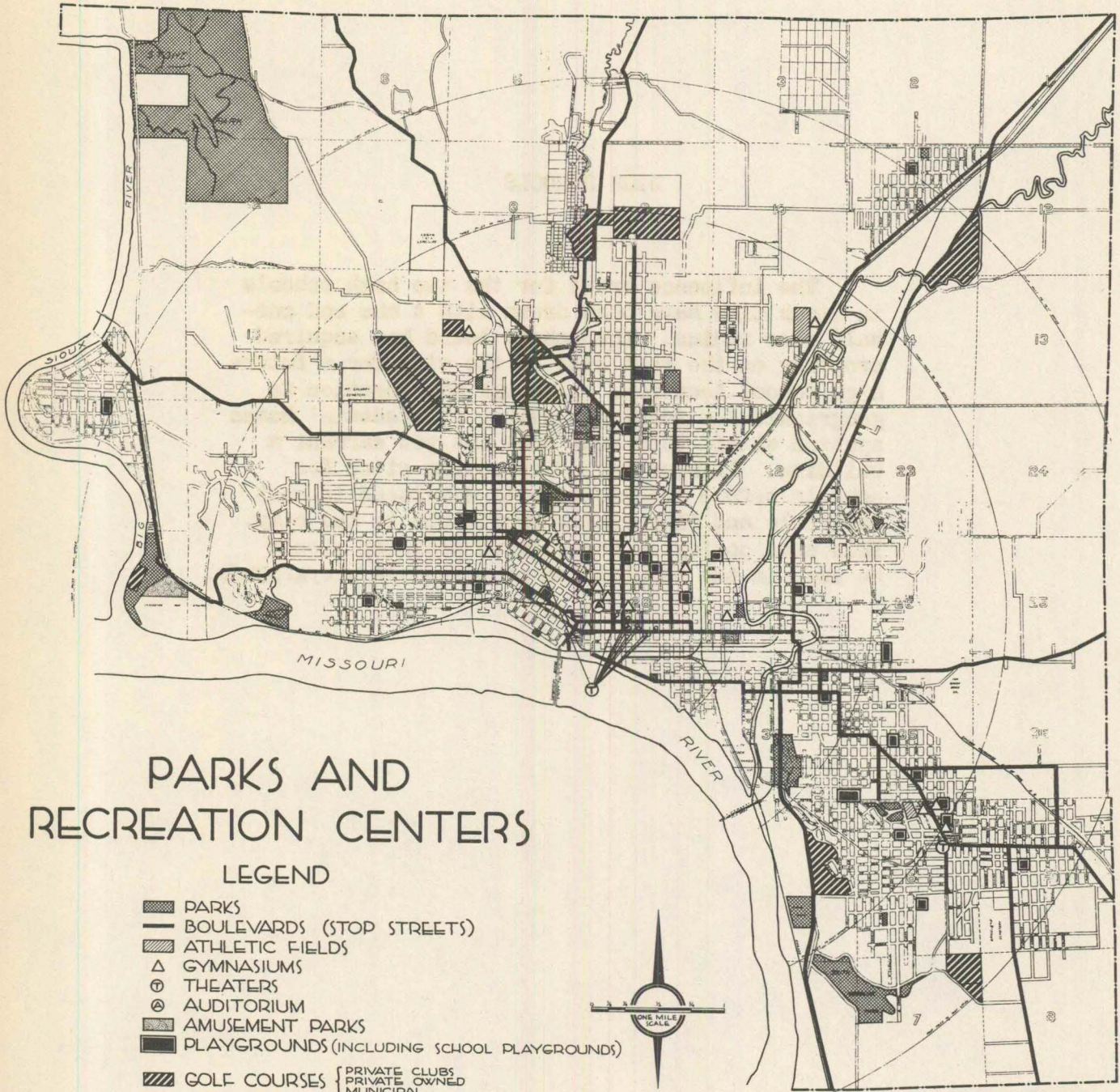
NOTE
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







HIGH SCHOOLS

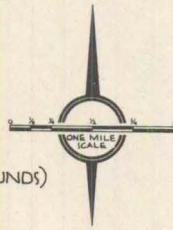
The influence areas for the two high schools in Sioux City have been drawn with a one and one-half mile radius. The school board has acquired property on the west side of the city for a future high school location. Although the location is geographically ideal the number of students' homes spotted within this area does not yet warrant a building. This policy of acquiring sites for schools before the district is developed is most admirable and financially profitable to the city. This same policy of far-sighted planning should be used in the acquisition of parks and playgrounds.



PARKS AND RECREATION CENTERS

LEGEND

-  PARKS
-  BOULEVARDS (STOP STREETS)
-  ATHLETIC FIELDS
-  GYMNASIUMS
-  THEATERS
-  AUDITORIUM
-  AMUSEMENT PARKS
-  PLAYGROUNDS (INCLUDING SCHOOL PLAYGROUNDS)
-  GOLF COURSES { PRIVATE CLUBS
PRIVATE OWNED
MUNICIPAL



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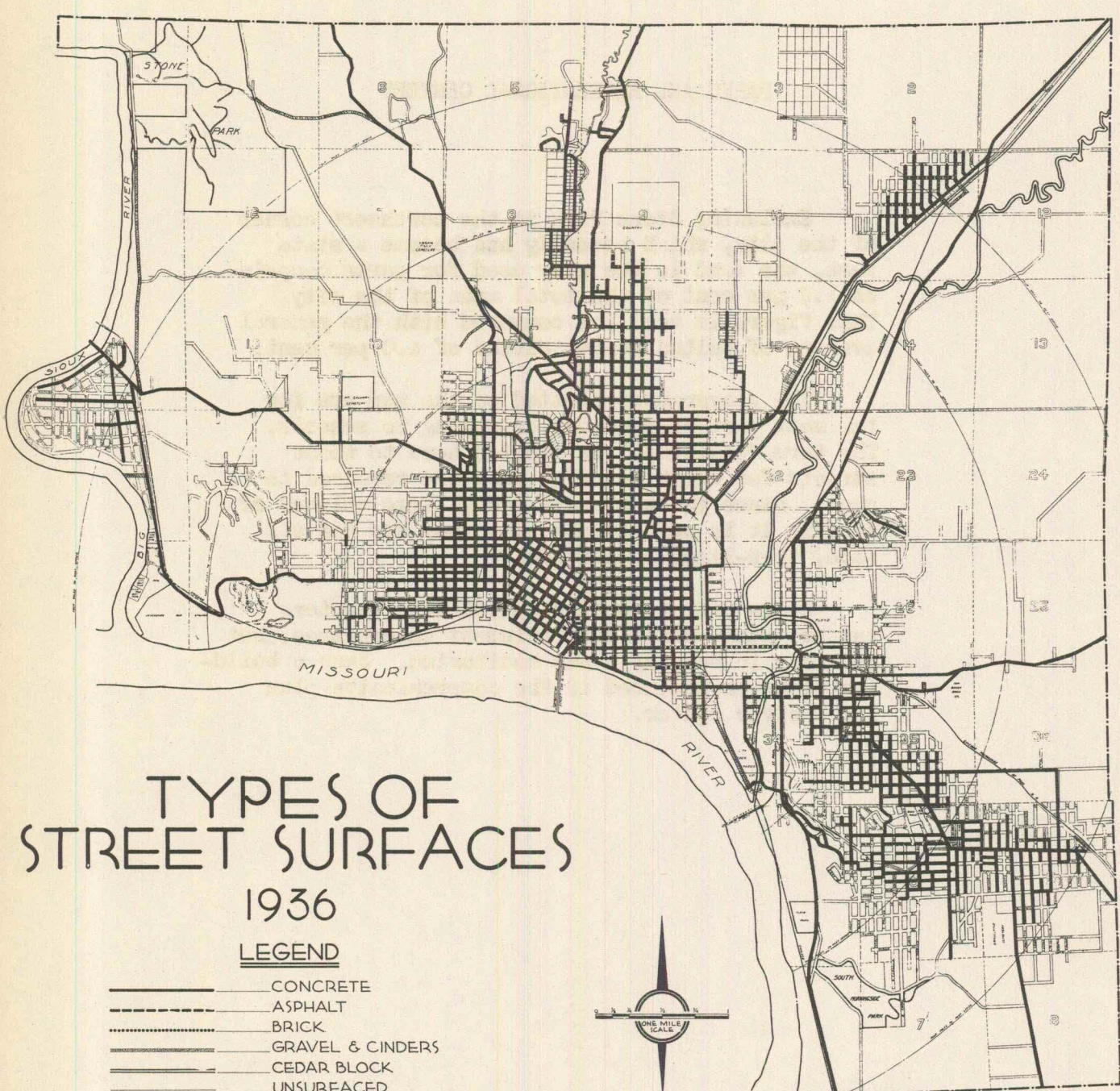
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PARKS AND RECREATIONAL CENTERS

Excluding Stone Park in the northwest corner of the city, which recently has become a state park, the land in the city used for parks comprises 1.2 per cent of the total area of the city. This figure is very low compared with the general average of United States cities of 4.0 per cent.

The playgrounds spotted on the map are for the most part playgrounds belonging to schools. The term "boulevard" is applied here to those streets for which entering cars are required to stop. Since these streets carry large volumes of traffic it is unfortunate that they are not all wide, tree-lined boulevards.

Sioux City is well supplied with theaters and privately owned entertainment enterprises, but is badly in need of a new auditorium. Such a building might be included in the comprehensive plan for a civic center.

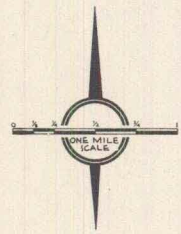


TYPES OF STREET SURFACES

1936

LEGEND

- CONCRETE
- - - - - ASPHALT
- BRICK
- GRVEL & CINDERS
- CEDAR BLOCK
- UNSURFACED



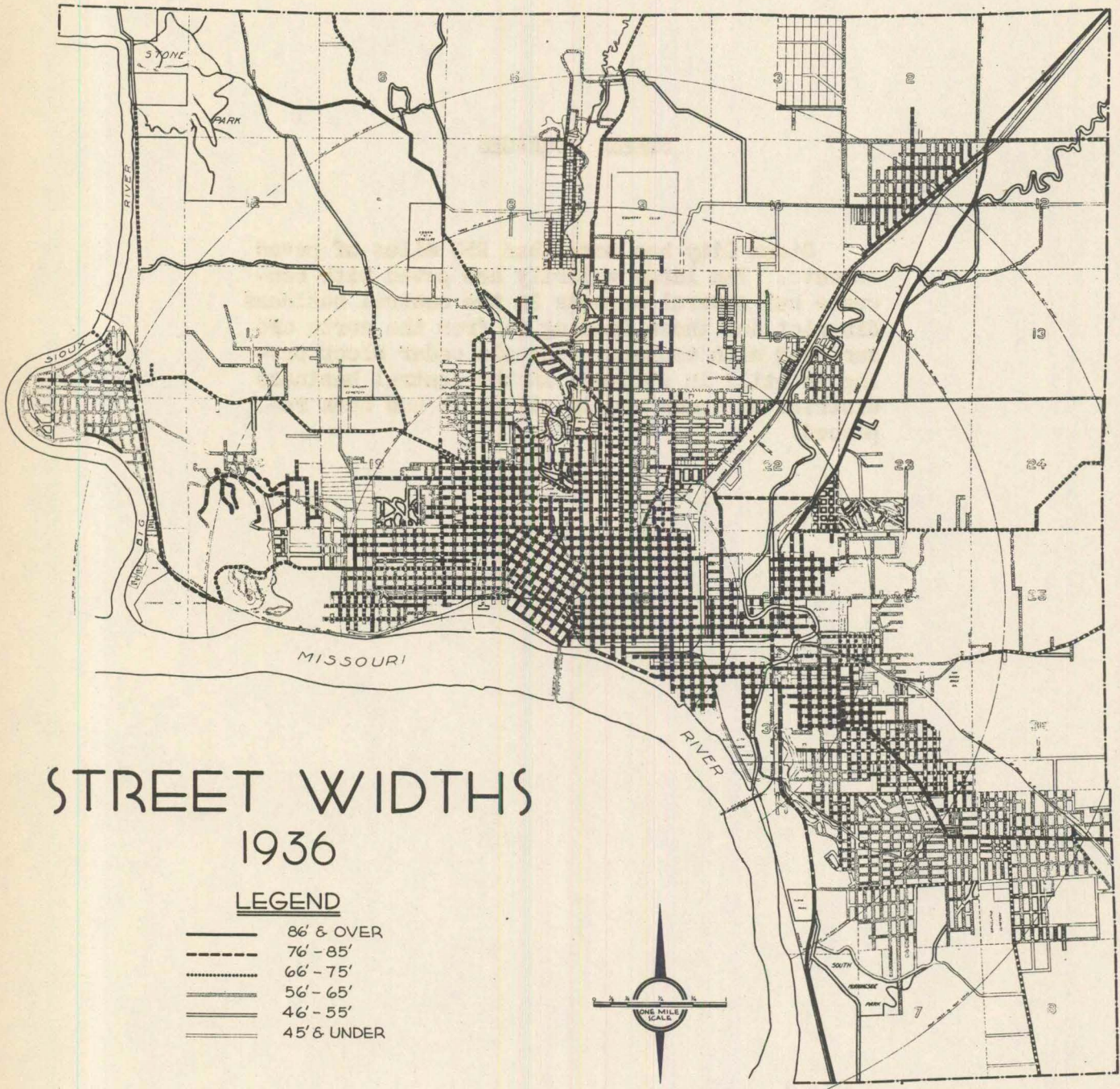
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STREET SURFACES

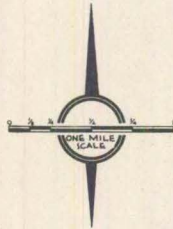
Sioux City has more than 250 miles of paved streets. The large majority are paved with concrete but several streets in the central business district and those feeding it from the north are surfaced with asphalt. The old cedar block paving is still in evidence in the central business district although nearly all of it has been replaced.



STREET WIDTHS 1936

LEGEND

- 86' & OVER
- 76' - 85'
- 66' - 75'
- ===== 56' - 65'
- ===== 46' - 55'
- ===== 45' & UNDER



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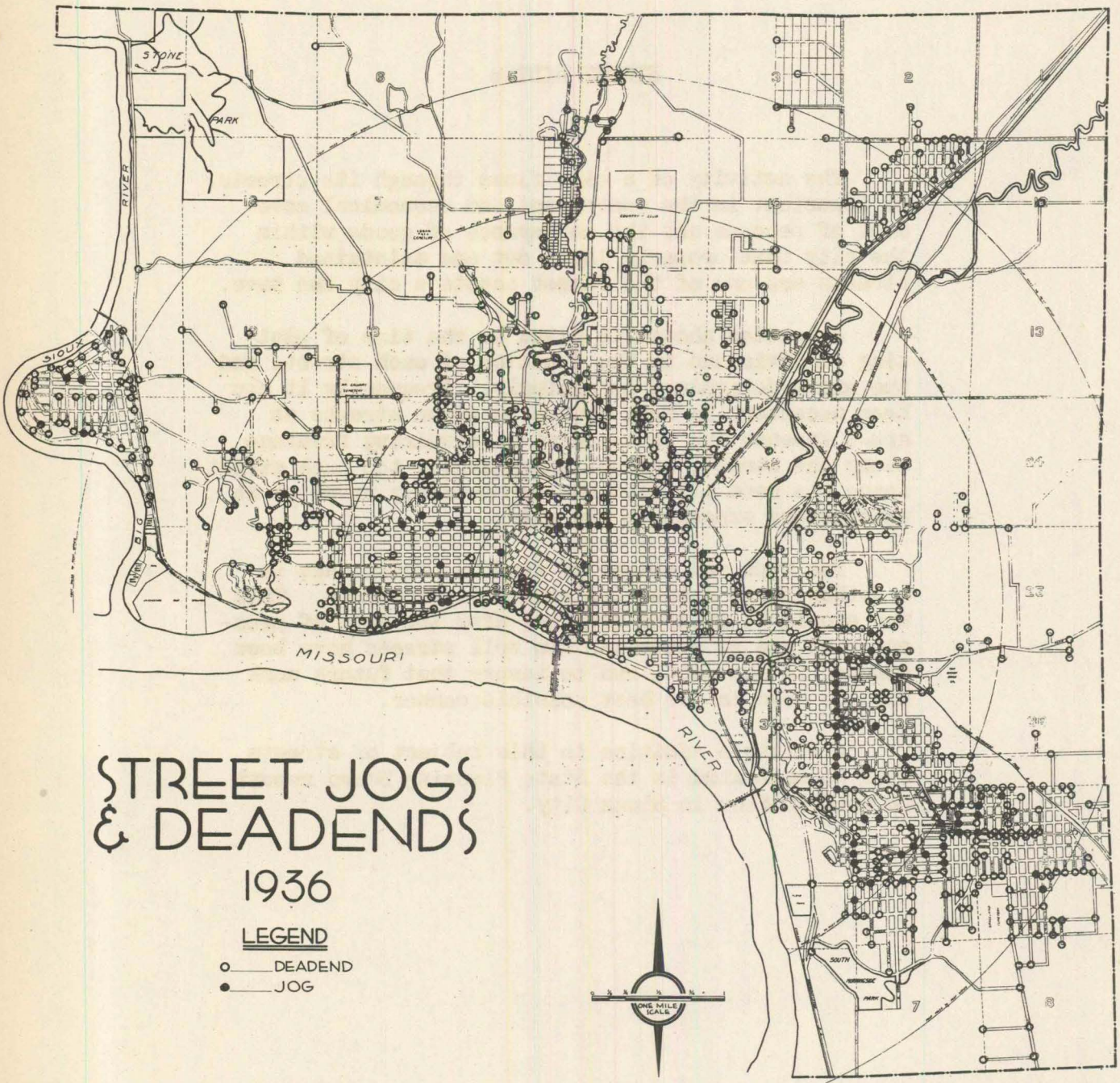
STREET WIDTHS

The activity of a city flows through its streets. So important is the convenient and economical movement of persons and the conveyance of goods within the city that properly layed out and maintained streets are one of the finest assets a city can have.

Attention should be given at the time of platting subdivisions to the function of each street, and the width determined accordingly. Frequently it has been necessary in some cities to widen streets at great expense due to the cost of acquiring frontage along the street, and not infrequently too much street space has been allotted and subsequently paved at an unnecessary expense to the city.

The type and extent of land use determines to a rather large extent the street requirements. This map should be studied together with the maps of present land use to determine how well streets have been planned in the past, and to insure that future work will be done in the best possible manner.

A valuable addition to this subject of streets will be presented in the State Planning Board report on traffic flow in Sioux City.

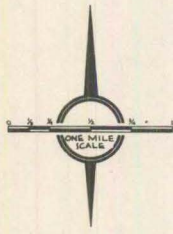


STREET JOGS & DEADENDS

1936

LEGEND

- — DEADEND
- — JOG



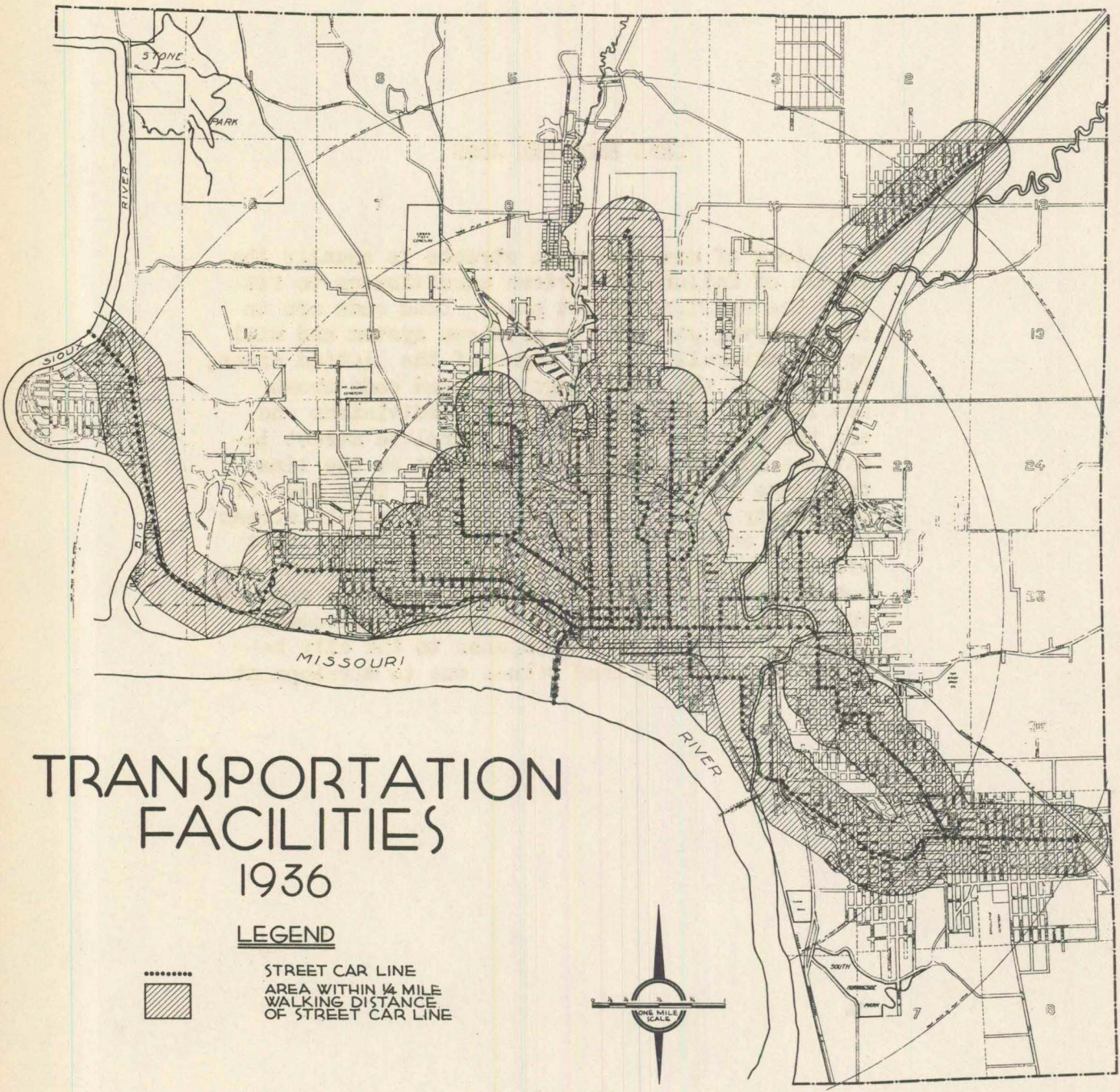
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DEAD ENDS AND JOGS


Lack of continuity in streets is usually the result of failure of various subdivisions to fit into the existing street plan. Dead ends are an accompanying part of the gridiron system and will appear naturally at the edges of the platted areas, but most of the other jogs and dead ends shown are located along the edges of subdivisions and are the result of failure to correlate street locations in the various subdivisions at the time they were presented for acceptance. This lack of continuity reduces the speed of the traffic stream and also causes traffic to shift to streets that are more properly constructed. If the streets are not properly laid out at the time they are dedicated, subsequent corrections or major improvements are made at considerable expense to the city because of increased land values due to development.

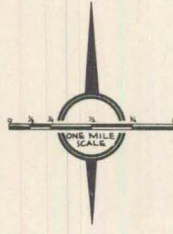


TRANSPORTATION FACILITIES

1936

LEGEND

- STREET CAR LINE
-  AREA WITHIN 1/4 MILE WALKING DISTANCE OF STREET CAR LINE



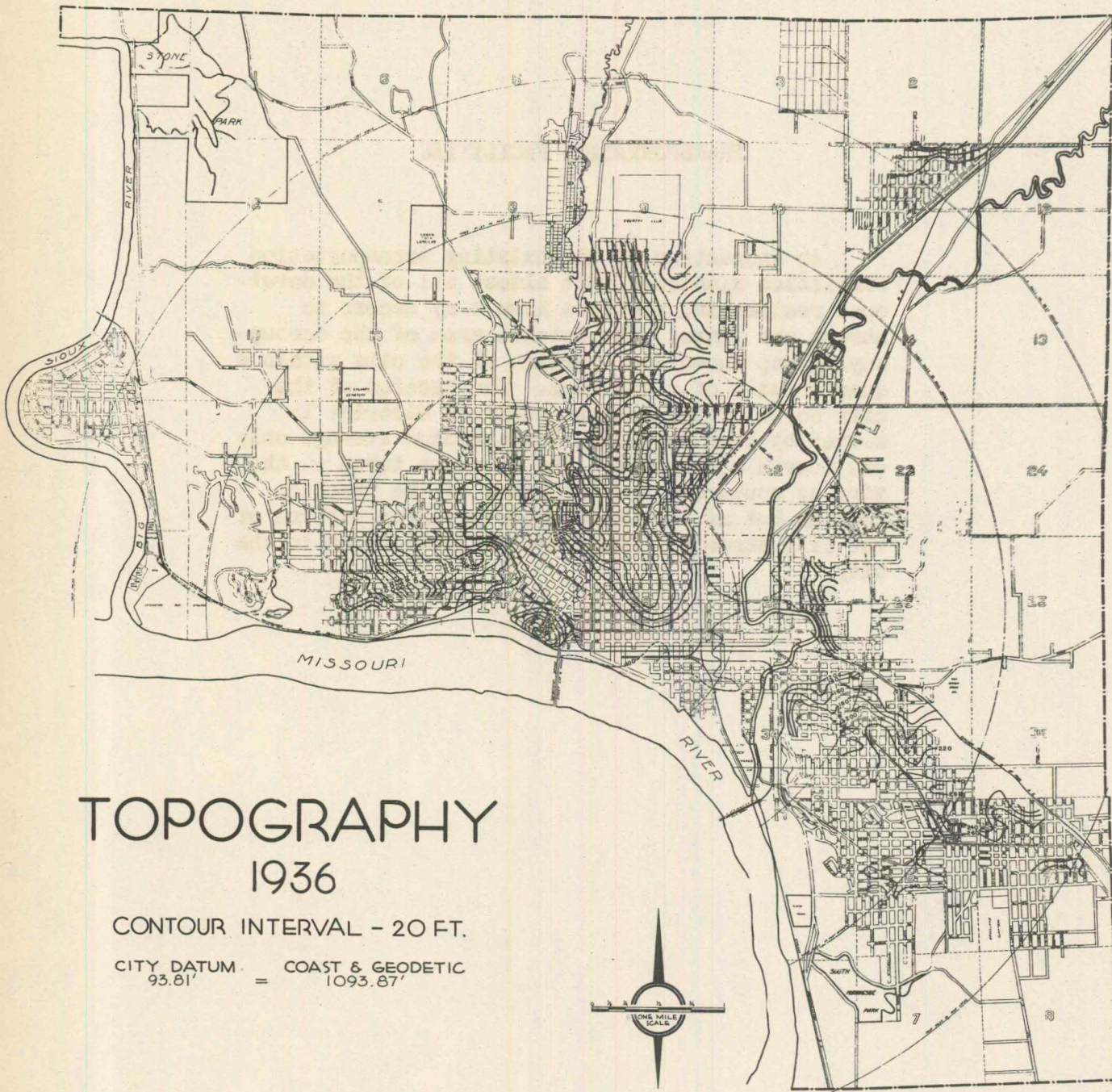
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TRANSPORTATION FACILITIES

An inspection of the existing transportation facilities discloses that almost all of the developed residential sections have easy access to street car lines. The hatched area of the accompanying map shows that portion of the city within a quarter mile of a car line. The section of the city north of the central business district is served by four car lines whose routes average only one-fourth mile apart. The numerous turns in the various routes are not the fault of the traction company but of the unfortunate gridiron pattern of the city streets. There are no local buses in the city.

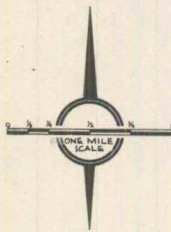


TOPOGRAPHY

1936

CONTOUR INTERVAL - 20 FT.

CITY DATUM = COAST & GEODETIC
 93.81' = 1093.87'



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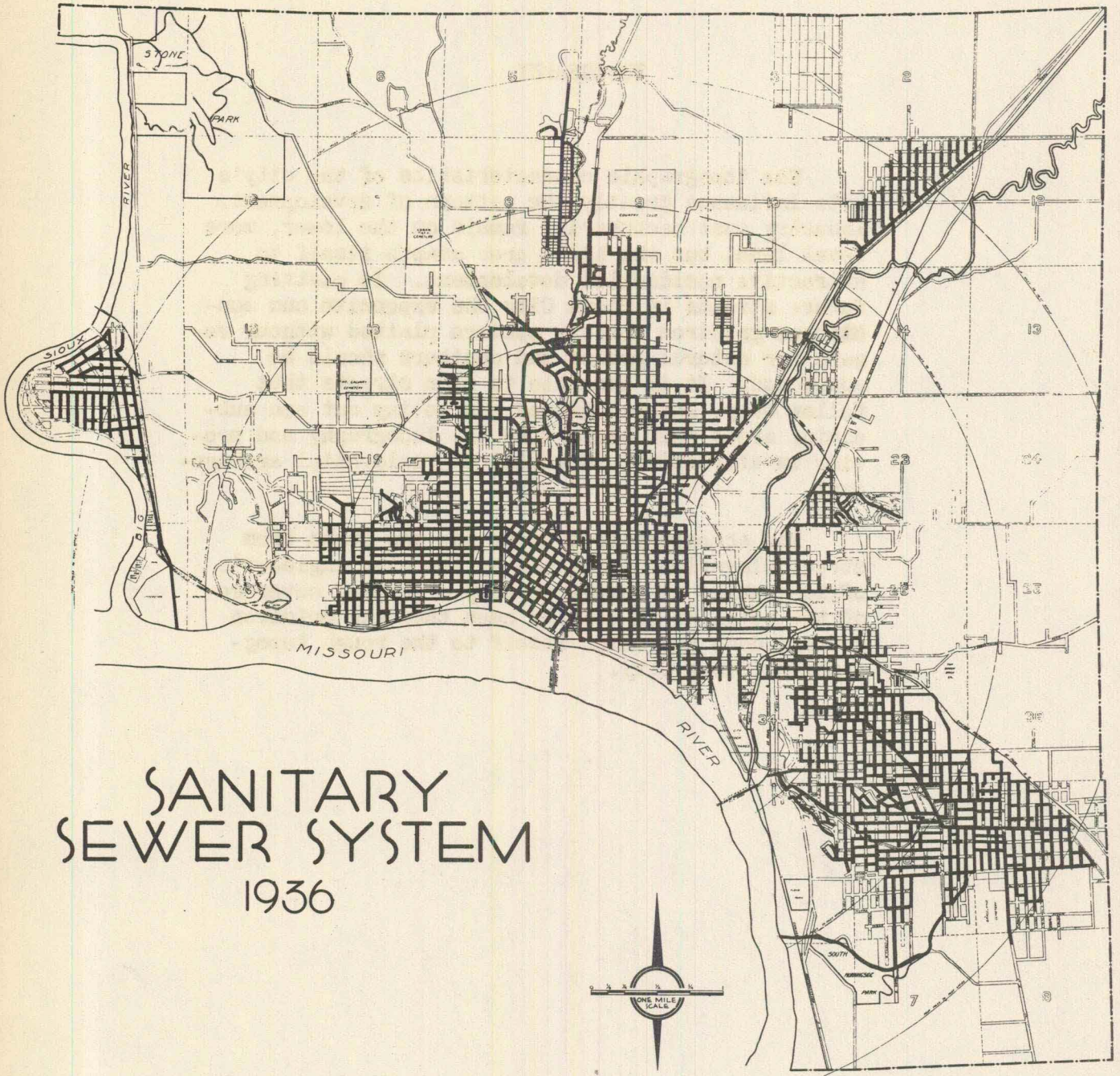
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TOPOGRAPHY

The topographic characteristics of the city's site influence greatly the pattern of development. Industry must necessarily remain on the lower, more level land, but the hilly area adapts itself to attractive residential development. In platting future streets in Sioux City the expensive and monotonous gridiron streets pattern platted without regard for natural grades and contours should be abandoned. It is possible to plan streets that follow easy, natural grades and to lay out and subdivide areas that conform to the topography and provide an attractive and efficient residential arrangement.

The accompanying contour map was drawn from street elevations furnished by the city engineer's office; while it comprises only a partial coverage of the city, it is readily seen that the gridiron pattern does not adapt itself to the rough topography of Sioux City.



SANITARY
SEWER SYSTEM
1936

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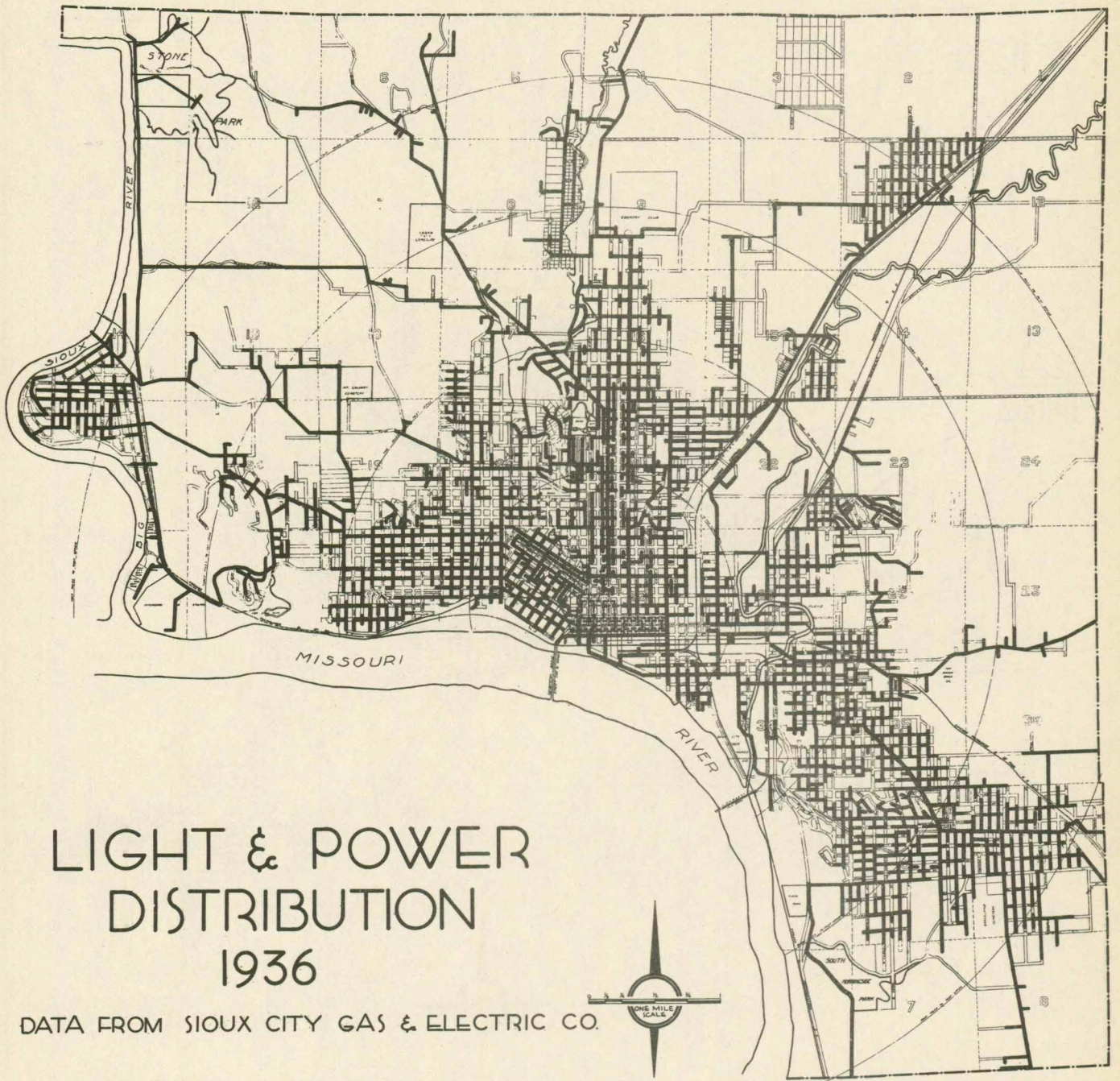
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SANITARY SEWER SYSTEM

The network of sewers in the city covers the developed areas, but since it does not serve the many rural sections which are only sparsely spotted with homes, there are still dwellings without indoor toilets. In Kelly Park and the district along the Missouri River northwest of the stock yards abound antiquated toilet facilities.

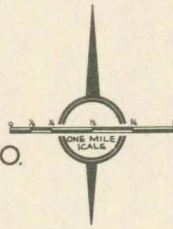
PUBLIC UTILITIES

The following maps show the areas served by various utilities. It must be kept in mind that, in order for the extension of these facilities to continue to serve the purpose for which they have been designed, the type of use must remain the same. For example, areas in residential use are provided with utility mains of a certain size; to change the use of the area to heavy industry would make severe demands on these mains, probably necessitating expensive replacement with larger equipment. Land uses must be stabilized or subsequent decadence will cause decreasing returns on the investment for line extensions.



LIGHT & POWER DISTRIBUTION 1936

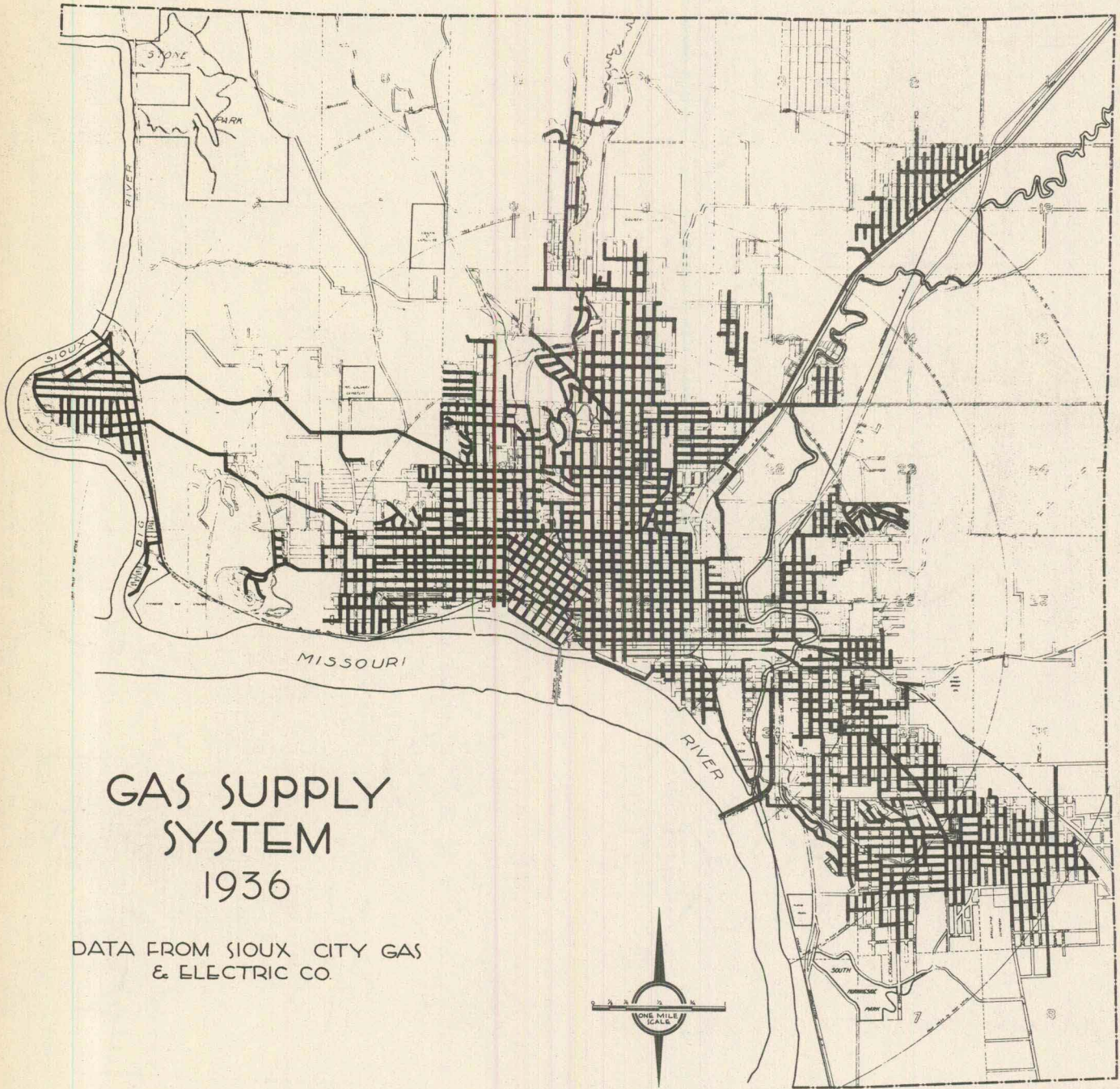
DATA FROM SIOUX CITY GAS & ELECTRIC CO.



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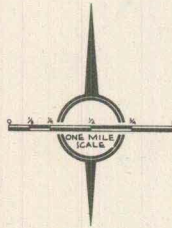
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GAS SUPPLY SYSTEM 1936

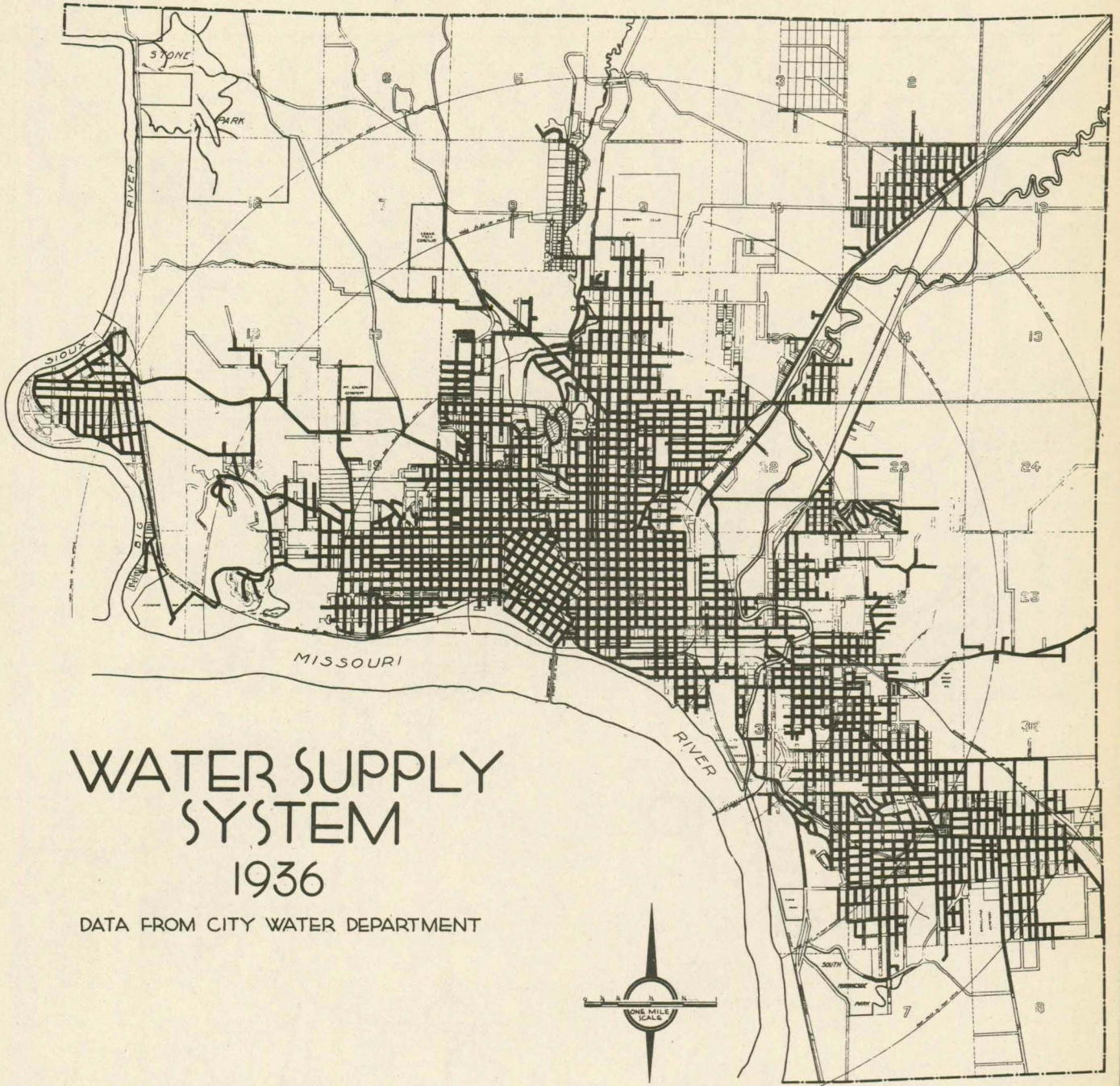
DATA FROM SIOUX CITY GAS
& ELECTRIC CO.



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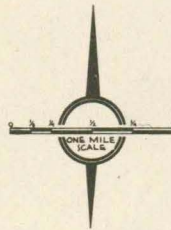
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WATER SUPPLY SYSTEM 1936

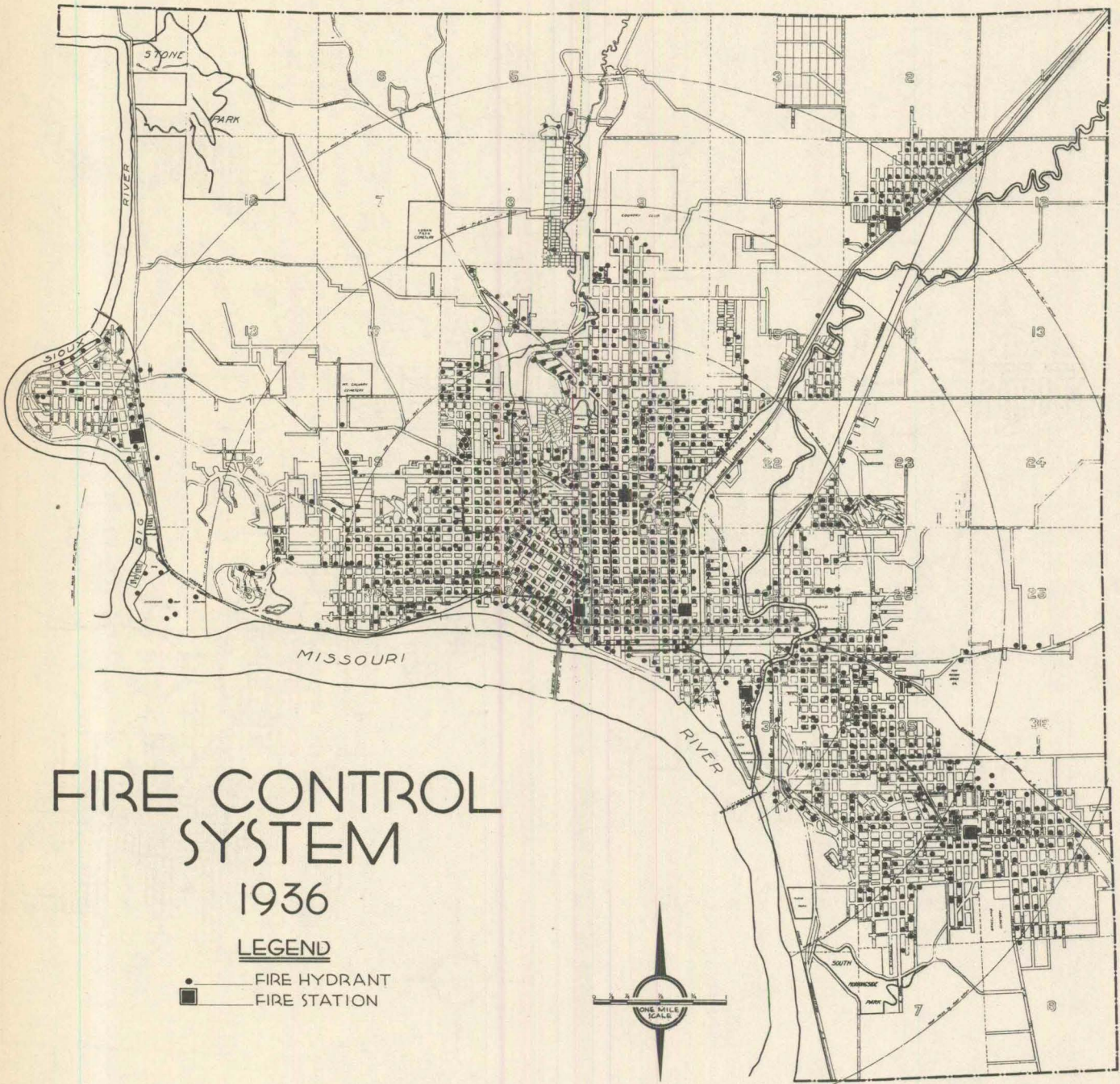
DATA FROM CITY WATER DEPARTMENT



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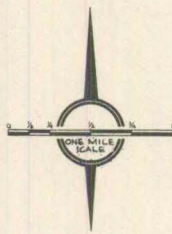


FIRE CONTROL SYSTEM

1936

LEGEND

- FIRE HYDRANT
- FIRE STATION



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FIRE CONTROL SYSTEM

Satisfactory correlation between the distribution of population and of fire hydrants and fire stations indicates that Sioux City is well protected against fire loss.

CONCLUSION

General Prospectus

City planning is the public control, through planning in advance, of the physical development and treatment of public and private land and its appurtenances in the interests of the community as a whole.

For every municipality or urban territory there should be some procedure whereby the principles of city planning could be introduced into the process of city development. Obviously, this requires the making of some design or plan of development which, in a more or less outline or general way and with certain amount of detail, will indicate the advisable structure of the city and the recommended uses of the land. The procedure of planning for the development of the city, complemented by a means for controlling the uses of the land -- zoning, will result in a tendency to reduce maladjustments, inefficiencies, and wastes so that the community will obtain the best results from the development of its territory, whether such results be measured in terms of money cost or in terms of public health, convenience, safety, harmonious arrangement, or public welfare.

Despite the attributes of city planning and the unquestionable need for such, it remains a fact that afterthought rather than forethought is largely responsible for the makeup of our cities as they exist today. Correcting mistakes has become the absorbing interest; prevention is scarcely considered. Moreover, things are being done every day that will require more costly corrective action in the years to come. The lack of planning in our cities is evidenced by:

Poor correlation between supply and demand, exemplified by our extremes in shortages and oversupply -- under-building and over-building.

Spasmodic and uncontrolled subdividing and expansion visible in the sprawling development so characteristic of the fringe of the city, with the resultant huge costs to the community and the tax payer for unused streets, sewers and the like.

Hodge-podge growth and the failure of zoning laws or building ordinances to reach their objectives.

Blighted districts that are being deserted for newer and better areas further out and that, because of the creation of this vacuum, are rapidly approaching the point where they will no longer

be able to so much as support their governmental costs much less return a profit to their owners.

These and other evidences, too numerous to mention, are to be observed by merely glancing around the local community; they can be attributed to the policies, or lack of policies, of our national and local governments in relation to urban land.

The picture, however, is beginning to change. One of the most significant movements in the history of American cities is beginning to manifest itself in a greater and more positive degree than ever before. It is the science of city planning, so long neglected with such costly results as those partially reviewed above.

Planning, as an administrative function for the smaller city, has been slow in arriving because planning, itself, has been in more or less an embryonic stage for the last two decades; and moreover, what city planning endeavors have been initiated and kept alive have been generally limited to the large urban centers where the problems are more acute and more visible and where it has been more possible to employ the needed technical assistance in carrying on research and in designing plans, etc.

It is expedient to point out here that there are many popular misconceptions about city planning, but that none is further from the truth than the notion that comprehensive plans are only for the large metropolitan centers. Actually, the reverse is nearer the truth. Comprehensive planning can have only a narrowly limited influence in the larger cities -- relieving only the worst civic conditions, ameliorating the merely superficial defects, leaving untouched the much more important work of remaking and revising certain parts of the basic city structure which are sadly out of joint when viewed from that city planning standpoint which covers, in a broad scope, all the modern concepts and possibilities in future city planning and rebuilding.

Despite all the opportunities that are evident in planning small and medium-sized cities (under 100,000), it is a well known fact that these cities almost as a whole, neglected to initiate comprehensive planning programs or have failed to keep alive what movements were begun along such lines. It is obvious that there could be many reasons for this tendency. Very likely, one might be that the city administrative body has consistently failed to see the need for planning, and, not being able to visualize the future benefits or the possibilities of carrying out a plan for the city's growth, they have relegated planning, as a municipal activity, to a place in the background where it would be conveniently out of the way.

The blame certainly cannot be laid on the city officials, however. It would be much more justifiable and correct to trace the cause to the fact that the full possibilities of the city planning and zoning movement, as a contribution of modern science, are just beginning to be appreciated and that, as yet, there are so few citizens who are properly

educated or informed as to the whys and wherefores of city planning, this being especially the case in the smaller city. Progress of the movement toward more rationalized urban land use policies and programs, like similar movements in all fields of endeavor which effect so large a share of the nation's population, is slow. In these movements much lip-service is usually given before material progress is effected.

Fortunately, there are now appearing definite indications that the city planning movement is being revived and, what is more important, that it is being given a very great degree of permanency. The emergency period has shown clearly the need for planning and also the way to broader and more comprehensive planning. This widespread civic awakening is no vague movement with vague and indefinite aims. The form of this civic awakening that is most significant and promising is the recognition of the need of comprehensive replanning, especially as regards the small and medium-sized city, where so much is practicable in the way of actual solutions.

To further the local city planning movement and to keep its program alive once a start is made, the local officials could further call on those agencies having to do with various elements of a planning program to furnish aid and guidance in giving motivation to a public relation and educational program aimed at acquainting interested officials and laymen with recognized and approved principles, practices and trends in city planning, and replanning, building and rebuilding accomplishments.

The Iowa State Planning Board, using federal WPA funds, has completed one of the first and most necessary steps in a planning program for Sioux City. This step has involved the gathering and compilation of data and the preparation of maps pertaining to the uses of all land within the city. Most of the physical surveys and inventories and much of the planning study for a general city plan will be derived from the data and maps provided by this land use survey; but such a survey constitutes only one step and provides only a part of the basic data necessary for the preparation of a city plan and its accessories.

Mr. Russell Van Nest Black, a recognized authority on city planning matters, has this to say regarding the place of land use surveys in the city planning procedure: "Existing condition surveys are, of course, merely a matter of money, men, and mechanics. The real and difficult job lies in the prediction and establishment of future land uses, to be based upon visible needs, suitability, adaptability, and probable future demands. The future land-use study must extend beyond the confines of a city to visualize so far as may be possible that city's place in the future regional and national pattern. There should evolve a reasonably well-founded guess as to the qualitative and quantitative future of the city under study. This guess must represent a fine balance between what it appears the city should be and what perhaps irresistible forces are likely to make of it. Within such a guess of quantitative and qualitative probability, the next step is to allocate most logical and most desirable functions to the various portions of the city. This is to be done in accordance with existing and still feasible service facilities."

The Approach to a Planning Program for Sioux City

It is obvious that a report of this nature cannot properly include a discussion on even the basic principles of city planning and urban land use; much less enter into recommendations that would prescribe any definite procedures, involving technical details, for the city to follow. The subject of city planning is much too broad a one and embraces far too many problems that are of vital concern to every citizen, to be disposed of in a few pages. At its best the city planning movement in Sioux City will require years to develop simply because no program of such universal effect can be effectively administered unless it has the support of at least a majority of the citizens, and this support cannot be obtained in a fortnight, but, rather, will be a matter of years.

Despite the comparatively rapid advance of city planning in recent years, there is still the tendency to treat planning as a nice thing to have if it can be bought with whatever surplus public funds can be scraped together. Those in the city who are conscious of what planning means and who are sufficiently informed as to the current developments and progresses that are being effected, which relate directly to the possibilities of planning, often fail to understand why their efforts or those of the local planning group fail to bring results and why such a sound and business like procedure as planning should not be recognized by the city administration as a fundamental municipal activity.

There can be only one explanation for this lack of understanding and appreciation of planning endeavors -- that is the widespread lack of public education which prevails in regard to what city planning is, why it should be recognized as a fundamental municipal responsibility, and the far-reaching results to be achieved by planning for the good of all in place of continued adherence to unrestricted practices of the policy of laissez-faire and that of putting individual freedom before the general welfare. Of course, there are many adverse factors that may appear to be the stumbling-block for a city planning movement. Some of these might be a seemingly unsympathetic, or even a hostile, administration; subversive and surreptitious opposition by certain groups of property owners and any other influential individuals or groups prompted by selfish desires to protect their interests at any cost; and lack of close cooperation and coordination between the several administrative departments of local government. Although such factors may appear to be the cause of the failure of a continued and uninterrupted progress in a planning movement, the real cause is traceable to the fact that the public, as a whole, has never been educated to know, understand, and support city planning.

There can never be any other way to have truly successful and effective city planning than by popular demand and approval -- a widespread understanding of what it is all about and a deep appreciation of the purposes in view. When the local planning group has accomplished a sufficient education of somewhere near the majority of the people, so that they will demand that planning be made a permanent, as well as a

fundamental, part of the city administration, then, and only then, can it be hoped that the subversive and selfish interests of a few will be overcome enough to permit an unobstructed progress in planning and public improvement enterprises designed for the general welfare of all alike.

Perhaps the difficulty in Sioux City lies in a misconception of the function of planning and a failure to understand the means for putting it into effect; perhaps the wrong methods were employed in giving birth to the planning movement; or perhaps the city plan and zoning ordinance are at fault. Whatever the fault or faults may be, it must be admitted that the planning movement in Sioux City leaves very much to be desired in a city of its size and importance.

It is not the purpose of this report to analyze the city planning program in Sioux City or any of its instruments with the end in view to criticize merely for the sake of being critical and finding something wrong. The only conclusion that can be logically and justly arrived at at this stage is the very general, but extremely significant one, that what Sioux City needs, immediately and above all else, is a thorough basic public education in the fundamentals, principles, practices, need for, etc., of city planning. There will be plenty of time and opportunity to later go into detail in the technical operations of preparing and administering a city plan. Indeed, the unfortunate thing, so far, is that Sioux City should have attempted to prepare zoning ordinances and incidentals without first possessing itself with a city plan. Whatever motive prompted this procedure, whether it was a desire to economize or a failure to realize the necessity for planning for the different land uses and to guide growth and development, it nevertheless remains a fact that the basis for effective zoning is the city plan. Effective zoning depends upon a number of things chief among which is a comprehensive approach, which, in turn, involves the treatment of zoning as one of the several simultaneously studied phases of the city plan. The fact, then, that Sioux City has already put the cart before the horse by providing itself first with a zoning plan and other incidentals to a general comprehensive city plan, instead of with the general city plan itself, may be expected to work hardships and unwonted difficulties in getting back to the fundamentals of the planning program considered as a whole.

Suggested Procedures For a First Step

In light of the present local situation, it is evident that the greatest opportunity and most urgent need in Sioux City is that of educating and organizing public opinion toward an intelligent understanding of what the local official City Planning Commission is driving at. The city plan, now that it has been postponed this long, can very well wait another year or two until the time is ripe for general public understanding and acceptance. Therefore it would be in line with wise practice to consider the need for some voluntary organization to assist the official City Planning Commission in an educational program to promote support of planning projects, as well as to serve as a reflection of pub-

lic opinion and a source of guidance to the Commission itself. Education of the general public is normally a slow and tedious process and should not necessarily be considered a function of the official Commission itself; therefore, whatever steps could be taken to speed it up should be given consideration.

In some cities where planning has benefited by strong public favor and support, voluntary organizations, formed for the purpose of promoting the establishment of an official city planning commission, or for the purpose of initiating the preparation of a comprehensive plan, have proven of great advantage and, in many cases, have provided the only life-giving stimulus for the initial motivation and the continued advancement of planning. These voluntary city planning groups have often taken the form of large associations of citizens, organized like any other civic association and, when taking such forms, their efforts have been most successful since their prestige and importance carry weight somewhat in direct proportion as the number of their representatives or constituents. In Sioux City a small group of progressive citizens might comprise the beginning of such an association. This group would serve as a nucleus from which the idea might gradually spread.

There have been, and still are, many different voluntary planning associations from which examples and ideas can be had for a pattern of such a one as would suit the needs and be adapted to the local practical possibilities in Sioux City. For instance, a citizens' association in Sioux City might follow somewhat the lines of the Buffalo City Planning Association* which is made up of a great variety of organization memberships, representing all sorts of district, religions, and civic clubs. In 1930 this association had over 800 members. This kind of planning association has been developed even more completely by the United City Planning Committee of Cincinnati, which, a few years ago, was composed of delegates from thirty-two civic organizations, each organization voting its delegates as a unit. This Committee was responsible for the establishment of the official city planning commission and for financing the preparation of the Cincinnati Plan. It is the promoter and protector of the Plan, and is supported by yearly voluntary subscriptions from individuals.

Or again the City Planning Association of Los Angeles might be used as a model. This citizens' organization, several years ago, had about 200 members with an annual membership fee of \$2.00 open to all.

Besides these strictly voluntary organizations there are also several examples of advisory committees officially appointed for the purpose of aiding the work of official city planning commissions. In Altoona, Pa., such a group was called "The Advisory Committee to the City Planning Commission" and consisted of 55 citizens appointed by the mayor. This Committee gave support, studied various plan phases through special sub-committees; and it has proved valuable in selling planning

* The following discussion adapted from "Our Cities Today and Tomorrow", Hubbard and Hubbard.

ideas to the public in Altoona. In Rochester, Minn., the city manager has appointed five persons as a nucleus of an advisory organization with authority to enlarge the body as much as desired. In Boston there is an "Advisory Committee on Public Improvements" officially appointed to secure intelligent cooperation of the important groups directly affected by city planning enterprises. In quite a few other cities special citizens committees have been officially appointed for different reasons related to a city planning movement. For a comprehensive review of these and above mentioned organizations, reference should be made to such planning publications as "Our Cities Today and Tomorrow", by Hubbard and Hubbard; additional information very likely could be secured from such national planning organizations as the American Society of Planning Officials, the U. S. Department of Commerce, Division of Building and Housing, and others.

Whatever scheme might be considered applicable in Sioux City, the possibility of raising modest funds, privately subscribed through a collection of membership fees or voluntary contributions, should be considered, since the official planning agency is not provided with sufficient funds to do extensive educational work. (Besides there is some question as to whether public funds should be so expended.) It should be borne in mind that there is no need to aim at large expenditures for costly reports, publications, etc., especially where funds are known to be limited, which is probably the case in Sioux City. Fancy reports and plans are not for wide distribution, and because of this, are very often not at all the proper mediums for educating the general adult masses. Much better mediums in Sioux City would be the newspapers, because they have consistently displayed an interest and willingness to assist and cooperate in planning endeavors. The press remains the most important vehicle of public, city-wide education. Favorable relations established with the press and skill in employing their news and editorial columns to the best effect will be not only the least expensive educational program possible, but it undoubtedly will be one of the best. Periodical city planning bulletins, educational pamphlets, the theatres, the radio, open forums, etc., are among the other channels through which an active and energetic citizens' association could reach the public effectively at very nominal costs. The addition of required courses in elementary city planning to the public school curriculums would insure future advancement of planning, but this is possibly for later consideration, the important thing now being to get pressure up as soon as possible through popular demand for an immediate revival of planning.

Briefly epitomizing the suggestions that can be offered at this period, it is pointed out that:

(1) The evident need in Sioux City is for educating enough of the general public to get behind a planning movement and keep it going.

(2) A suggested procedure to accomplish this aim would be the promotion of a voluntary planning association to be composed of a representation of all civic and other organizations interested in city planning

endeavors; or the official appointment of an advisory committee or association to represent the citizens and property owners and to promote and protect the city plan and zoning ordinances, etc.; or the origination of some other organization for accomplishing similar results.

(3) The beginning can be made by a small group of energetic and influential citizens who are known to be civic minded and who will keep the general welfare and future aims above personal desires to profit or immediate gains that can not be consolidated into a plan for the future.

(4) Although it will be found necessary to raise some funds, large expenditures should not be necessary if it is possible to enlist the support of the press and other groups who are in charge of instruments for conveying information and publicity to the majority of the people, the uses of which could be had at relatively small costs.

(5) The initial fundamental purpose of a voluntary or advisory association of citizens should be that of educating the public. The entire field of possibilities should be investigated and a consolidation made of all the best adaptable ones selected, so that the local association could carry on the most effective program possible at a cost within the limits of whatever funds are available.

(6) The program of the association should be planned, and it should have means of coordinating efforts and consolidating gains made. Publications, bulletins, pamphlets, newspaper and radio publicity, etc., should be timed according to a pre-conceived plan so far as is practical. The Planning Commission, itself, or those who make up the nucleus of a citizens' planning association, should seek the advice and assistance of outside planning consultants and technicians as would be helpful; first, in prescribing a series of educational or training courses which would give themselves a fairly good working knowledge of city planning fundamentals, practices, trends, etc., (from the ground up); and, second, in helping to direct the preparation of a plan for a unified and progressive public educational program. With a first-hand knowledge of at least the fundamental principles, current trends, etc., these two groups could, in turn, intelligently conduct a series of public forums, newspaper and radio serials, etc., based somewhat on the educational training it had received. Whatever plan is followed, however, it is absolutely imperative that at least the members of the official municipal planning group and those of the voluntary planning association be as well grounded and versed as is both practicable and possible in the fundamentals of planning and urban land use principles. If those responsible for Sioux City's planning movement and educational program have no more than a speaking acquaintance with these fundamentals, there can be small hope held out for the ultimate success of the local planning movement.

In any considerations and deliberations given to the possibility of creating a citizens' association, or some similar representative organization, the distinction between such enterprising groups and the official planning commission should be carefully and clearly drawn and

defined so as to positively prevent any misinterpretation or usurpation of authority or overlapping and conflicting of activities. The purpose and duties of each should be easily distinguishable. The City Planning Commission has certain official duties such as preparing plans and ordinances, and keeping in touch with the administering of them, etc; the citizens' association or other voluntary or official advisory bodies, should be concerned primarily with public education, support and protection of the city plan, and other incidental functions. There should be complete harmony and agreement between the two, and their efforts should be directed toward a common end. To facilitate this it might be a wise move to give some member or members of the official planning group an important place in the organization of the representative association. This is an important point and its significance should not be overlooked. Besides supplying the coordination needed between the two groups, the member or members of the official group will be needed because they will very likely be the ones in the city most familiar with the activities, organizations, etc., in the planning field, and, therefore, will be able to point out the way to the leaders of the citizens representative association. Of course, if the official group is so fortunate as to possess a planning engineer or consultant, such an individual should be in close touch with the association.

So far as is possible and practical, the programs of the two groups should progress simultaneously. That is, while the citizens' association is being concerned with publicizing planning and working up sufficient concerted interest on the part of enough of the people to bring the planning movement to a head, the official group can be engaged in the preliminary technical steps leading up to the preparation of a city plan, and can probably even prepare, or cause to have prepared, several suggested city plans and future land use designs. Proceeding along these two lines of action, it can be hoped that by the time the official group is ready to present to the city council its several suggested plans or a proposal to appropriate funds for the preparation of such, the citizens' association will have enough backing for the proposals of the official group that favorable action will be reasonably assured, whether that action be the adoption of a city plan and a revision of the zoning, or the appropriation of funds to be used for the final draft of such instruments.

When this goal is attained, the citizens' association would henceforth become the protector of the accepted city plan, and the official planning group could devote all its efforts toward administering the plan and its accessory ordinances, etc. With so many federal and state agencies, as well as private philanthropic planning organizations, ready to lend assistance, financial or otherwise, the present opportunities for carrying out the official planning commission's part in the program should be made use of while they last.

APPENDIX

The following maps and information for Sioux City have been prepared in the course of this study and prints of them may be obtained at cost by writing the Iowa State Planning Board, Ames, Iowa:

The following maps are, Size 36" x 47 $\frac{1}{2}$ ", Scale 1" = 80':

- "Land Use, Northeast part of Central Business District"
- "Land Use, Southeast part of Central Business District"
- "Land Use, Northwest part of Central Business District"
- "Land Use, Southwest part of Central Business District"

The following maps are, Size 30 $\frac{1}{2}$ " x 34", Scale 1" = 1600':

- "Dwelling Areas"
- "Commercial Areas"
- "Industrial Areas"
- "Public and Semi-public Areas"
- "Vacant Areas"
- "Historical Development by Additions and Subdivisions"
- "Average Assessed Land Values"
- "Average Assessed Improvement Values"
- "Location of New Dwellings"
- "Location of Grade Schools and Distribution of Students"
- "Location of Junior High Schools and Distribution of Students"
- "Location of High Schools and Distribution of Students"
- "Types of Street Surfaces"
- "Street Widths"
- "Street Jogs and Dead Ends"
- "Sanitary Sewer System"
- "Fire Control System"
- "Transportation Facilities"
- "Light and Power Distribution"
- "Gas Supply System"
- "Topography"
- "Water Supply System"
- "Parks, Boulevards and Recreational Centers"

On the following pages are tabular data comparing various land uses in Sioux City with similar uses in nine selected cities. All data involving population of Sioux City are based on the 1930 Federal Census. The chart opposite page one would indicate that in 1936 there should be a population of eighty-five thousand upon the basis of the trend of the past sixty years. However, it is doubtful if the most optimistic person would place the present population of Sioux City at that figure. Rather than base the ratios on conjecture, and since it is believed that the gain in population during the depression has been slight, the 1930 Census figures were used.

TABLE NO. 1
RATIOS OF TOTAL DEVELOPED AREA TO POPULATION AND TO TOTAL CITY AREA

City	Population at Date of Survey	Total City Area in Acres	Total Developed Area in Acres	Total City Area: Acres per 100 persons	Developed Area: Acres per 100 Persons	Per Cent of Total City Area Developed
1. Jefferson City, Mo.	17,572	3,718	1,600.6	21.2	9.1	43.1
2. San Jose, Calif	55,667	6,080	3,720.0	10.9	6.7	61.2
3. Cedar Rapids, Iowa	55,731	17,984	5,966.1	32.3	10.7	33.2
4. Springfield, Mo.	57,248	8,768	5,587.3	15.3	9.8	63.7
5. Binghamton, N. Y.	77,609	6,445	4,099.1	8.3	5.3	63.6
6. Sioux City, Iowa	79,183	29,121.803	8,744.479	36.777	11.043	30.027
7. Sacramento, Calif.	90,352	8,896	5,201.0	9.8	5.8	58.5
8. Peoria, Ill.	105,155	7,808	5,851.9	7.4	5.6	74.9
9. Tulsa, Oklahoma	141,281	13,760	8,342.5	9.7	5.9	60.6
10. Fort Worth, Texas	152,730	28,736	15,898.6	18.8	10.4	55.3
Totals	832,528	131,316.803	65,011.579			
Mean Averages				15.7	7.8	49.5
Iowa Average				48.8	21.2	48.0
U. S. Average				15.0	8.2	60.2
U. S. Norm.					11.1	

TABLE NO. 2

RATIOS OF SINGLE-FAMILY BUILDINGS AND AREA TO POPULATION

City	Population at Date of Survey	Number of Single-Family Buildings	Single-Family Bldgs. per 100 Persons	Single-Family Area in Acres	Single-Family Area: Acres per 100 Persons	Single-Family Area: Bldgs. Per Acre
1. Jefferson City, Mo.	17,572	3,258	18.5	576.0	3.28	5.66
2. San Jose, Calif.	55,667	13,800	24.8	1,653.0	2.97	8.35
3. Cedar Rapids, Iowa	55,731	11,666	20.9	1,989.5	3.57	5.86
4. Springfield, Mo.	57,248	13,305	23.2	2,877.0	5.03	4.62
5. Binghamton, N. Y.	77,609	7,517	9.7	1,138.5	1.47	6.60
6. Sioux City, Iowa	79,183	14,269	18.020	2,229.560	2.816	6.399
7. Sacramento, Calif.	90,352	13,850	15.3	1,698.0	1.88	8.16
8. Peoria, Ill.	105,155	19,032	18.1	2,297.5	2.18	8.28
9. Tulsa, Oklahoma	141,281	26,272	18.6	3,336.5	2.36	7.87
10. Fort Worth, Texas	152,730	32,541	21.3	5,094.8	3.34	6.39
Totals	832,528	155,510		22,890.360		
Mean Averages			18.7		2.75	6.79
Iowa Average						
U. S. Average						
U. S. Norm.						

TABLE NO. 3
RATIOS OF SINGLE-FAMILY AREA TO TOTAL CITY AREA AND TO DEVELOPED ACREAGES

City	Total City Area in Acres	Developed Area in Acres	Privately Developed Area in Acres	Single-Family Area in Acres	Per Cent of Total City Area Occupied by Single-Family Bldgs.	Per Cent of Developed Area Occupied by Single-Family Bldgs.	Per Cent of Privately Developed Area Occupied by Sgl.Fam. Bldgs.
1. Jefferson City, Mo.	3,718	1,600.6	726.4	576.0	15.5	36.0	79.3
2. San Jose, Calif.	6,080	3,720.0	2,230.0	1,653.0	27.2	44.4	74.1
3. Cedar Rapids, Iowa	17,984	5,966.1	2,548.1	1,989.5	11.1	33.3	78.1
4. Springfield, Mo.	8,768	5,587.3	3,238.7	2,877.0	32.8	51.5	88.8
5. Binghamtown, N. Y.	6,445	4,099.1	2,001.0	1,138.5	17.7	27.8	56.9
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	2,229.560	7.656	25.497	62.940
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	1,698.0	19.1	32.6	64.3
8. Peoria, Ill.	7,808	5,851.9	3,063.7	2,297.5	29.4	39.3	75.0
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	3,336.5	24.2	40.0	76.3
10. Fort Worth Texas	28,736	15,989.6	6,221.0	5,094.8	17.7	32.1	81.9
Totals	131,316.803	65,011.579	30,587.947	22,890.360			
Mean Averages					17.4	35.2	74.8
Iowa Average							
U. S. Average							
U. S. Norm.							

TABLE NO. 4

RATIOS OF TWO-FAMILY BUILDINGS AND AREA TO POPULATION

City	Population at Date of Survey	Number of Two-Family Buildings	Two-Family Bldgs. Per 100 Persons	Two-Family Area in Acres	Two-Family Area: Acres per 100 Persons	Two-Family Area: Bldgs. per Acre	Sq.Ft. of Lot Area per Two-Family Building
1. Jefferson City, Mo	17,572	202	1.150	27.2	0.155	7.43	5,866
2. San Jose, Calif.	55,667	685	1.231	44.6	0.080	15.36	2,836
3. Cedar Rapids, Iowa	55,731	1,770	3.176	123.6	0.222	14.32	3,042
4. Springfield, Mo.	57,248	142	0.248	26.6	0.046	5.34	8,160
5. Binghamtown	77,609	3,241	4.176	394.3	0.508	8.22	5,300
6. Sioux City, Iowa	79,183	491	.620	72.067	0.091	6.801	6,373.194
7. Sacramento, Calif.	90,352	1,585	1.754	183.0	0.203	8.66	5,029
8. Peoria, Ill.	105,155	863	0.821	99.9	0.095	8.64	5,042
9. Tulsa, Oklahoma	141,281	2,457	1.739	271.7	0.192	9.04	4,817
10. Fort Worth, Texas	152,730	531	0.348	70.3	0.046	7.55	5,767
Totals	832,528	11,967		1,313.267			
Mean Averages			1.437		0.157	9.11	4,779
Iowa Average							
U. S. Average							
U. S. Norm							

TABLE NO. 5
RATIOS OF TWO-FAMILY AREA TO TOTAL CITY AREA AND TO DEVELOPED ACREAGES

City	Total City Area in Acres	Developed Area in Acres	Privately Developed Area in Acres	Two-Family Area in Acres	Per Cent of Total City Area Occupied by Two Family Buildings	Per Cent of Developed Area Occupied by Two-Family Bldgs.	Per Cent of Privately Developed Area Occupied by Two-Family Buildings
1. Jefferson City, Mo.	3,718	1,600.6	726.4	27.2	0.73	1.70	3.74
2. San Jose, Calif.	6,080	3,720.0	2,230.0	44.6	0.73	1.20	2.00
3. Cedar Rapids, Iowa	17,984	5,966.1	2,548.1	123.6	0.69	2.07	4.85
4. Springfield, Mo.	8,768	5,587.3	3,238.7	26.6	0.30	0.48	0.82
5. Binghamtown, N. Y.	6,445	4,099.1	2,001.0	394.3	6.12	9.62	19.71
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	72.067	0.247	0.824	2.034
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	183.0	2.06	3.52	6.93
8. Peoria, Illinois	7,808	5,851.9	3,063.7	99.9	1.28	1.71	3.26
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	271.7	1.97	3.26	6.21
10. Fort Worth, Texas	28,736	15,898.6	6,221.0	70.3	0.24	0.44	1.13
Totals	131,316.803	65,011.579	30,587.947	1,313.267			
Mean Averages					1.00	2.02	4.29
Iowa Average							
U. S. Average							
U. S. Norm.							

TABLE NO. 6

RATIOS OF MULTI-FAMILY AREA TO TOTAL CITY AREA AND TO DEVELOPED ACREAGES

City	Total City Area in Acres	Developed Area in Acres	Privately Developed Area in Acres	Multi-Family Area in Acres	Per Cent of Total City Area Occupied by Multi-Family Buildings	Per Cent of Developed Area Occupied by Multi-Family Buildings	Per Cent of Privately Developed Area Occupied by Multi-Fam. Bldg.
1. Jefferson City, Mo	3,718	1,600.6	726.4	8.3	0.22	0.52	1.14
2. San Jose, Calif.	6,080	3,720.0	2,230.0	63.2	1.04	1.70	2.83
3. Cedar Rapids, Iowa	17,984	5,966.1	2,548.1	67.8	0.38	1.14	2.66
4. Springfield, Mo.	8,768	5,587.3	3,238.7	16.5	0.19	0.30	0.51
5. Binghamtown, N. Y.	6,445	4,099.1	2,001.0	96.2	1.49	2.35	4.81
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	67.372	0.231	0.770	1.902
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	94.7	1.06	1.82	3.59
8. Peoria, Illinois	7,808	5,851.9	3,063.7	81.1	1.04	1.39	2.65
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	123.3	0.90	1.48	2.82
10. Fort Worth, Texas	28,736	15,898.6	6,221.0	72.8	0.25	0.46	1.17
Totals	131,316.803	65,011.579	30,587.947	691.272			
Mean Averages					0.52	1.06	2.26
Iowa Average							
U. S. Average							
U. S. Norm							

TABLE NO. 7
COMPARISON OF DWELLING AREA STATISTICS BY TYPES

City	Developed Area in Acres	Dwelling Area in Acres	Per Cent of Developed Area Occupied by All Types of Dwellings	Per Cent of Dwelling Area Occupied by Sgl.-Family Buildings	Per Cent of Dwelling Area Occupied by Two-Family Buildings	Per Cent of Dwelling Area Occupied by Multi-Family Buildings
1. Jefferson City, Mo.	1,600.6	611.5	38.2	94.1	4.5	1.4
2. San Jose, Calif.	3,720.0	1,760.8	47.3	93.9	2.5	3.6
3. Cedar Rapids, Iowa	5,966.1	2,180.9	36.5	91.2	5.7	3.1
4. Springfield, Mo.	5,587.3	2,920.1	52.3	98.5	0.9	0.6
5. Binghamtown, N.Y.	4,099.1	1,629.0	39.8	69.9	24.2	5.9
6. Sioux City, Iowa	8,744.479	2,368.999	27.091	94.114	3.042	2.844
7. Sacramento, Calif.	5,201.0	1,975.7	38.0	85.9	9.3	4.8
8. Peoria, Illinois	5,851.9	2,478.5	42.4	92.7	4.0	3.3
9. Tulsa, Oklahoma	8,342.5	3,731.5	44.7	89.4	7.3	3.3
10. Fort Worth, Texas	15,898.6	5,237.9	33.0	97.3	1.3	1.4
Totals	65,011.579	24,894.899				
Mean Averages			38.2	91.9	5.2	2.8
Iowa Average			51.2			
U. S. Average			39.3			
U. S. Norm.						

TABLE NO. 8

RATIOS OF COMMERCIAL BUILDINGS AND AREA TO POPULATION

City	Population at Date of Survey	Number of Retail Stores	Stores per 100 Persons	Commercial Area in Acres	Commercial Area: Acres per 100 Per- sons	Stores Per Acre of Commercial Area
1. Jefferson City, Mo.	17,572	313	1.78	44.4	0.253	7.0
2. San Jose, Calif.	55,667	2,064	3.71	89.2	0.160	23.1
3. Cedar Rapids, Iowa	55,731	1,260	2.26	124.4	0.223	10.1
4. Springfield, Mo.	57,248	1,403	2.45	117.4	0.205	12.0
5. Binghamtown, N. Y.	77,609	1,621	2.09	146.7	0.189	11.0
6. Sioux City, Iowa	79,183	1,436	1.814	165.380	.209	9.817
7. Sacramento, Calif.	90,352	2,617	2.90	193.3	0.214	13.5
8. Peoria, Illinois	105,155	2,092	1.99	158.0	0.150	13.2
9. Tulsa, Oklahoma	141,281	3,220	2.28	216.4	0.153	14.9
10. Fort Worth, Texas	152,730	4,056	2.66	203.9	0.134	19.9
Totals	832,528	19,992		1,459.080		
Mean Averages			2.40		0.174	13.7
Iowa Average					.786	
U. S. Average					.179	
U. S. Norm					.18	

TABLE NO. 9
RATIOS OF COMMERCIAL AREA TO TOTAL CITY AREA AND TO DEVELOPED ACREAGES

City	Total City Area in Acres	Developed Area in Acres	Privately Developed Area in Acres	Commercial Area in Acres	Per Cent of Total City Area Occupied by Commerce	Per Cent of Developed Area Occupied by Commerce	Per Cent of Privately Developed Area Occupied by Commerce
1. Jefferson City, Mo.	3,718	1,600.6	726.4	44.4	1.19	2.77	6.11
2. San Jose, Calif.	6,080	3,720.0	2,230.0	89.2	1.47	2.40	4.00
3. Cedar Rapids, Iowa	17,984	5,966.1	2,548.1	124.4	0.69	2.09	4.88
4. Springfield, Mo.	8,768	5,587.3	3,238.7	117.4	1.34	2.10	3.62
5. Binghamtown, N. Y.	6,445	4,099.1	2,001.0	146.7	2.28	3.58	7.33
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	165.380	.568	1.891	4.669
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	193.3	2.17	3.72	7.32
8. Peoria, Illinois	7,808	5,851.9	3,063.7	158.0	2.02	2.70	5.16
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	216.4	1.57	2.59	4.95
10. Fort Worth, Texas	28,736	15,898.6	6,221.0	203.9	0.71	1.28	3.28
Totals	131,316.803	65,011.579	30,587.947	1,459.080			
Mean Averages					1.11	2.24	4.77
Iowa Average					2.3	3.0	
U. S. Average					1.4	2.4	
U. S. Norm.							

TABLE NO. 11
DISTRIBUTION OF COMMERCIAL FRONTAGE

City	Central Business District		Beyond Central Business District	
	Store Frontage in Lin. Ft.	Store Frontage: Lin. Ft. per 100 Persons	Store Frontage in Lin. Ft.	Store Frontage: Lin. Ft. per 100 Persons
1. Jefferson City, Mo	3,390	19.3	6,206	35.3
2. San Jose, Calif.	22,592	40.6	33,001	59.3
3. Cedar Rapids, Iowa	20,910	37.5	14,717	26.4
4. Springfield, Mo.	23,413	40.9	18,435	32.2
5. Binghamtown, N. Y.	14,253	18.4	30,907	39.8
6. Sioux City, Iowa	21,860	27.608	23,603	29.808
7. Sacramento, Calif.	34,703	38.4	36,901	40.9
8. Peoria, Illinois	15,749	15.0	35,957	34.2
9. Tulsa, Oklahoma	37,869	26.8	53,980	38.2
10. Fort Worth, Texas	40,000	26.2	70,830	46.4
Totals	234,739		324,537	
Mean Averages		28.2		38.9
Iowa Average				
U. S. Average				
U. S. Norm				

TABLE NO. 12

RATIO OF COMBINED AND HEAVY INDUSTRIAL AND RAILROAD PROPERTY TO POPULATION

City	Population at Date of Survey	Combined Indus- trial and Railroad Area in Acres	Combined Industrial and Railroad Area: Acres Per 100 Persons	Combined Industrial and Railroad Area: Sq. Ft. Per 100 Persons
1. Jefferson City, Mo.	17,572	171.4	0.98	42,689
2. San Jose, Calif.	55,667	378.0	0.68	29,621
3. Cedar Rapids, Iowa	55,731	699.3	1.25	54,450
4. Springfield, Mo.	57,248	471.2	0.82	35,719
5. Binghamtown, N. Y.	77,609	483.0	0.62	27,007
6. Sioux City, Iowa	79,183	1,007.968	1.273	55,450.268
7. Sacramento, Calif.	90,352	472.5	0.52	22,651
8. Peoria, Illinois	105,155	786.2	0.75	32,670
9. Tulsa, Oklahoma	141,281	639.9	0.45	19,602
10. Fort Worth, Texas	152,730	2,071.0	1.36	59,242
Totals	832,528	7,180.468		
Mean Averages			0.86	37,570
Iowa Average			2.086	
U. S. Average			0.916	
U. S. Norm			0.92	

TABLE NO. 13

RATIOS OF COMBINED LIGHT AND HEAVY INDUSTRIAL AND RAILROAD PROPERTY TO TOTAL CITY
AREA AND TO DEVELOPED ACREAGES

City	Total City Area in Acres	Developed Area in Acres	Privately Developed Area in Acres	Combined In- dustrial and Railroad Area in Acres	Per Cent of Total City A. Occupied by Combined Indus. & RR. Property	Per Cent of De- veloped Area Occupied by Com- bined Indus. & RR. Property	Percentage Re- lation of Com- bined Indus. & RR Property to Pri.Devel.Area
1. Jefferson City, Mo	3,718	1,600.6	726.4	171.4	4.6	10.7	23.6
2. San Jose, Calif.	6,080	3,720.0	2,230.0	378.0	6.2	10.2	17.0
3. Cedar Rapids, Iowa	17,984	5,966.1	2,548.1	699.3	3.9	11.7	27.4
4. Springfield, Mo.	8,768	5,587.3	3,238.7	471.2	5.4	8.5	14.5
5. Binghamtown, N. Y.	6,445	4,099.1	2,001.0	483.0	7.5	11.8	24.1
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	1,007.968	3.461	11.527	28.455
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	472.5	5.3	9.1	17.9
8. Peoria, Illinois	7,808	5,851.9	3,063.7	786.2	10.1	13.4	25.7
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	639.9	4.6	7.7	14.6
10. Fort Worth Texas	28,736	15,898.6	6,221.0	2,071.0	7.2	13.0	33.3
Totals	131,316.803	65,011.579	30,587.947	7,180.468			
Mean Averages					5.46	11.04	23.47
Iowa Average					4.2	9.0	
U. S. Average					6.9	11.4	
U. S. Norm							

TABLE NO. 14

RATIOS OF STREET AREA AND MILEAGE TO POPULATION

City	Population at Date of Survey	Street Area in Acres	Street Area: Acres Per 100 Persons	Street Mileage	Number of Miles of Streets Per 100 Persons	Total City Area In Sq. Mi.	Number of Miles of Streets Per Sq. Mi. of Tot City Area
1. Jefferson City, Mo.	17,572	505.0	2.87	65.4	0.372	5.8	11.3
2. San Jose, Calif.	55,667	1,300.0	2.34	160.5	0.288	9.5	16.9
3. Cedar Rapids, Iowa	55,731	1,964.0	3.52	226.5	0.406	28.1	8.1
4. Springfield, Mo.	57,248	1,585.5	2.77	234.2	0.409	13.7	17.1
5. Binghamton, N. Y.	77,609	851.7	1.10				
6. Sioux City, Iowa	79,183	3,062.697	3.867	461.506	0.582	45.503	10.142
7. Sacramento, Calif.	90,353	1,863.0	2.06	222.2	0.246	13.9	16.0
8. Peoria, Illinois	105,155	1,806.2	1.72	189.1	0.180	12.2	15.5
9. Tulsa, Oklahoma	141,281	3,025.0	2.14	388.5	0.275	21.5	18.1
10. Fort Worth, Texas	152,730	6,231.0	4.08				
Totals	832,528	22,194.097		1,947.906		150.203	
Mean Average			2.66		0.323 *		12.9 *
Iowa Average			5.53				
U. S. Average			2.82				
U. S. Norm			2.4				

* Mean Average of Eight Cities

TABLE NO. 15
RATIOS OF STREET AREA TO TOTAL CITY AREA AND TO DEVELOPED ACREAGES

City	Total City Area In Acres	Developed Area in Acres	Privately Developed Area in Acres	Street Area in Acres	Per Cent of Total City Area Occupied by Streets	Per Cent of Developed Area Occupied by Streets	Percentage Relation of Street Area to Privately Developed Area
1. Jefferson City, Mo.	3,718	1,600.6	726.4	505.0	13.6	31.6	69.5
2. San Jose, Calif.	6,080	3,720.0	2,230.0	1,300.0	21.4	34.9	58.3
3. Cedar Rapids, Iowa	17,984	5,966.1	2,548.1	1,964.0	10.9	32.9	77.1
4. Springfield, Mo.	8,768	5,587.3	3,238.7	1,585.5	18.1	28.4	49.0
5. Binghamton, N. Y.	6,445	4,099.1	2,001.0	851.7	13.2	20.8	42.6
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	3,062.697	10.517	35.025	80.813
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	1,863.0	20.9	35.8	70.5
8. Peoria, Illinois	7,808	5,851.9	3,063.7	1,806.2	23.1	30.8	59.0
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	3,025.0	22.0	36.3	69.1
10. Fort Worth, Texas	28,736	15,898.6	6,221.0	6,231.0	21.7	39.2	100.2
Total	131,316.803	65,011.579	30,587.947	22,194.097			
Mean Averages					16.9	34.1	72.5
Iowa Average					12.9	26.3	
U. S. Average					20.2	33.6	
U. S. Norm							

TABLE NO. 16

RATIO OF PARK AND PLAYGROUND AREA TO POPULATION

City	Population at Date of Survey	Park and Playground Area in Acres	Park and Play- ground Area: Acres Per 100 Persons	Park and Play- ground Area: Sq. Ft. Per 100 Persons
1. Jefferson City, Mo.	17,572	81.0	0.461	20,081
2. San Jose, Calif.	55,667	38.0	0.068	2,962
3. Cedar Rapids, Iowa	55,731	444.1	0.797	34,717
4. Springfield, Mo.	57,248	291.0	0.508	22,128
5. Binghamtown, N. Y.	77,609	382.2	0.492	21,432
6. Sioux City, Iowa	79,183	1,073.061	1.355	59,031.025
7. Sacramento, Calif.	90,352	369.0	0.408	17,772
8. Peoria, Illinois	105,155	387.5	0.369	16,074
9. Tulsa, Oklahoma	141,281	246.0	0.174	7,579
10. Fort Worth, Texas	152,730	1,242.7	0.814	35,458
Totals	832,528	4,553.861		
Mean Averages			0.547	23,827
Iowa Average			.63	
U. S. Average			.479	
U. S. Norm			1.0	

TABLE NO. 17
RATIOS OF PARK AND PLAYGROUND AREA TO TOTAL CITY AREA AND TO DEVELOPED ACREAGES

City	Total City Area in Acres	Developed Area in Acres	Privately Developed Area in Acres	Park & Playground Area In Acres	Per Cent of Total City Area Occupied by Parks and Playgrounds	Per Cent of Developed Area Occupied by Parks and Playgrounds	Percentage Relation of Park and Playground Area to Privately Dev. Area
1. Jefferson City, Mo.	3,718	1,600.6	726.4	81.0	2.18	5.06	11.15
2. San Jose, Calif.	6,080	3,720.0	2,230.0	38.0	0.63	1.02	1.70
3. Cedar Rapids, Iowa	17,984	5,968.1	2,548.1	444.1	2.47	7.44	17.43
4. Springfield, Mo.	8,768	5,587.3	3,238.7	291.0	3.32	5.21	8.99
5. Binghamtown, N. Y.	6,445	4,099.1	2,001.0	382.2	5.93	9.32	19.10
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	1,073.061	3.685	12.271	30.292
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	369.0	4.15	7.09	13.97
8. Peoria, Illinois	7,808	5,851.9	3,063.7	387.5	4.96	6.62	12.64
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	246.0	1.79	2.95	5.62
10. Fort Worth, Texas	28,736	15,898.6	6,221.0	1,242.7	4.32	7.82	19.98
Totals	131,316.803	65,011.579	30,587.947	4,553.861			
Mean Averages					3.47	7.00	14.88
Iowa Average					1.3	3.1	
U. S. Average					4.0	6.3	
U. S. Norm							

TABLE NO. 18
RATIO OF PUBLIC AND SEMI-PUBLIC AREA TO POPULATION

City	Population at Date of Survey	Public and Semi-Public Area in Acres	Public and Semi- Public Area: Acres per 100 Persons	Public and Semi- Public Area: Sq. Ft. per 100 Persons
1. Jefferson City, Mo.	17,572	186.6	1.062	46,261
2. San Jose, Calif.	55,667	154.0	0.277	12,066
3. Cedar Rapids, Iowa	55,731	553.9	0.994	43,299
4. Springfield, Mo.	57,248	201.7	0.352	15,333
5. Binghamtown, N. Y.	77,609	606.6	0.782	34,064
6. Sioux City, Iowa	79,183	1,066.374	1.347	58,631.760
7. Sacramento, Calif.	90,352	328.0	0.363	15,812
8. Peoria, Illinois	105,155	235.5	0.224	9,757
9. Tulsa, Oklahoma	141,281	483.7	0.342	14,898
10. Fort Worth, Texas	152,730	911.9	0.597	26,005
Totals	832,528	4,728.274		
Mean Averages			0.568	24,742
Iowa Average			1.12	
U. S. Average			.622	
U. S. Norm				

TABLE NO. 19
RATIOS OF PUBLIC AND SEMI-PUBLIC AREA TO TOTAL CITY AREA AND TO DEVELOPED ACREAGES

City	Total City Area in Acres	Developed Area in Acres	Privately Developed Area in Acres	Public and Semi-Public Area in Acres	% of Total City Area Occupied by Public and Semi-Public Property	% of Developed Area Occupied by Public and Semi-Public Property	Percentage Relation of Public & Semi-Public Area to Priv. Dev. Area
1. Jefferson City, Mo.	3,718	1,600.6	726.4	186.6	5.02	11.64	25.69
2. San Jose, Calif.	6,080	3,720.0	2,230.0	154.0	2.53	4.14	6.91
3. Cedar Rapids, Iowa	17,984	5,966.1	2,548.1	553.9	3.08	9.28	21.74
4. Springfield, Mo.	8,768	5,587.3	3,238.7	201.7	2.30	3.61	6.23
5. Binghamtown, N. Y.	6,445	4,099.1	2,001.0	606.6	9.41	14.80	30.31
6. Sioux City, Iowa	29,121.803	8,744.479	3,542.347	1,066.374	3.662	12.195	30.103
7. Sacramento, Calif.	8,896	5,201.0	2,641.0	328.0	3.69	6.31	12.42
8. Peoria, Illinois	7,808	5,851.9	3,063.7	235.5	3.02	4.02	7.69
9. Tulsa, Oklahoma	13,760	8,342.5	4,375.7	483.7	3.52	5.80	11.05
10. Fort Worth, Texas	28,736	15,898.6	6,221.0	911.9	3.17	5.74	14.66
Totals	131,316.803	65,011.579	30,587.947	4,728.274			
Mean Averages					3.60	7.27	15.45
Iowa Average					2.4	5.4	
U. S. Average					4.5	7.6	
U. S. Norm							

TABLE NO. 20
RATIO OF VACANT AREA TO POPULATION

City	Population at Date of Survey	Vacant Area in Acres	Vacant Area: Acres per 100 Persons
1. Jefferson City, Mo.	17,572	2,117.4	12.05
2. San Jose, Calif.	55,667	2,360.0	4.24
3. Cedar Rapids, Iowa	55,731	12,017.9	21.56
4. Springfield, Mo.	57,248	3,180.7	5.56
5. Binghamtown, N. Y.	77,609	2,345.9	3.02
6. Sioux City, Iowa	79,183	20,377.324	25.734
7. Sacramento, Calif.	90,352	3,695.0	4.09
8. Peoria, Illinois	105,155	1,956.1	1.86
9. Tulsa, Oklahoma	141,281	5,417.5	3.83
10. Fort Worth, Texas	152,730	12,837.4	8.41
Totals	832,528	66,305.224	
Mean Averages			7.97
Iowa Average			27.69
U. S. Average			6.8
U. S. Norm			

TABLE NO. 21
 RATIO OF VACANT AREA TO TOTAL CITY AREA

City	Total City Area in Acres	Vacant Area in Acres	Per Cent of Total City Area Vacant
1. Jefferson City, Mo.	3,718	2,117.4	56.9
2. San Jose, Calif	6,080	2,360.0	38.8
3. Cedar Rapids, Iowa	17,984	12,017.9	66.8
4. Springfield, Mo.	8,768	3,180.7	36.3
5. Binghamtown, N. Y.	6,445	2,345.9	36.4
6. Sioux City, Iowa	29,121.803	20,377.324	69.973
7. Sacramento, Calif.	8,896	3,695.0	41.5
8. Peoria, Illinois	7,808	1,956.1	25.1
9. Tulsa, Oklahoma	13,760	5,417.5	39.4
10. Fort Worth, Texas	28,736	12,837.4	44.7
Totals	131,316.803	66,305.224	
Mean Averages			50.49
Iowa Average			52.0
U. S. Average			39.8
U. S. Norm			

TABLE NO. 22 A
 SUMMATION: RATIOS OF ALL LAND USE AREAS TO POPULATION
 Acres per 100 Persons

City	Total City Area in Acres	Single-Family	Two-Family	Multi-Family	Total Dwelling Area	Commercial	Light Industrial	Heavy Industrial
1. Jefferson City, Mo.	3,718	3.28	0.155	0.047	3.482	0.253	0.259	0.142
2. San Jose, Calif.	6,080	2.97	0.080	0.114	3.164	0.160	0.392	
3. Cedar Rapids, Iowa	17,984	3.57	0.222	0.122	3.914	0.223	0.252	0.184
4. Springfield, Mo.	8,768	5.03	0.046	0.029	5.105	0.205	0.175	0.176
5. Binghamtown, N. Y.	6,445	1.47	0.508	0.124	2.102	0.189	0.217	0.073
6. Sioux City, Iowa	29,121.803	2.816	.091	.085	2.992	.209	.183	.434
7. Sacramento, Calif.	8,896	1.88	.203	.105	2.188	.214	.267	
8. Peoria, Illinois	7,808	2.18	.095	.077	2.352	.150	.116	.291
9. Tulsa, Oklahoma	13,760	2.36	.192	.087	2.639	.153	.142	.160
10. Fort Worth, Texas	28,736	3.34	.046	.048	3.434	.134	.187	.323
Totals	131,316.803							
Mean Averages		2.75	0.157	0.083	2.990	0.174	0.200	* .241
Iowa Average					11.0	.786		
U. S. Average					3.156	.179		
U. S. Norm					1.02	.18		

* Mean Average for 8 cities.

TABLE NO. 22 B
 SUMMATION: RATIOS OF ALL LAND USE AREAS TO POPULATION
 Acres per 100 Persons

City	Railroad Property	Combined Light and Heavy Indus- trial & R.R. Property	Streets	Parks and Play- grounds	Public and Semi- Public	Total Developed Area	Vacant	Total City Area
1. Jefferson City, Mo.	0.574	0.98	2.87	0.461	1.062	9.108	12.05	21.158
2. San Jose, Calif.		0.68	2.34	0.068	0.277	6.689	4.24	10.929
3. Cedar Rapids, Iowa	0.819	1.25	3.52	0.797	0.994	10.698	21.56	32.258
4. Springfield, Mo.	0.472	0.82	2.77	0.508	0.352	9.760	5.56	15.320
5. Binghamtown, N. Y.	0.332	0.62	1.10	0.492	0.782	5.285	3.02	8.305
6. Sioux City, Iowa	0.655	1.273	3.867	1.355	1.347	11.043	25.734	36.777
7. Sacramento, Calif.		0.52	2.06	0.408	0.363	5.753	4.09	9.843
8. Peoria, Illinois	0.341	0.75	1.72	0.369	0.224	5.565	1.86	7.425
9. Tulsa, Oklahoma	0.150	0.45	2.14	0.174	0.342	5.898	3.83	9.728
10. Fort Worth Texas	0.846	1.36	4.08	0.814	0.597	10.419	8.41	18.829
Totals								
Mean Averages	* 0.505	0.86	2.66	0.547	0.568	7.809	7.97	15.779
Iowa Average	1.54	2.086	5.53	.63	1.12	21.2	27.69	48.89
U. S. Average	.463	.916	2.82	.479	.622	8.2	6.8	15.0
U. S. Norm	.46	.92	2.4	1.0		11.1		

* Mean Average for 8 cities.

TABLE NO. 23 A

SUMMATION: PER CENT OF TOTAL CITY AREA OCCUPIED BY VARIOUS USES

City	Single-Family	Two-Family	Multi-Family	Total Dwelling Area	Commercial	Light Industrial	Heavy Industrial
1. Jefferson City, Mo.	15.5	0.73	0.22	16.45	1.19	1.22	0.67
2. San Jose, Calif.	27.2	0.73	1.04	28.97	1.47	3.59	
3. Cedar Rapids, Iowa	11.1	0.69	0.38	12.17	0.69	0.78	0.57
4. Springfield, Mo.	32.8	0.30	0.19	33.29	1.34	1.14	1.15
5. Binghamtown, N. Y.	17.7	6.12	1.49	25.31	2.28	2.61	0.88
6. Sioux City, Iowa	7.656	0.247	0.231	8.134	0.568	0.499	1.112
7. Sacramento, Calif.	19.1	2.06	1.06	22.22	2.17	2.71	
8. Peoria, Illinois	29.4	1.28	1.04	31.72	2.02	1.56	3.91
9. Tulsa, Oklahoma	24.2	1.97	0.90	27.07	1.57	1.46	1.65
10. Fort Worth Texas	17.7	0.24	0.25	18.19	0.71	0.99	1.72
Totals							
Mean Averages	17.4	1.00	0.52	18.95	1.11	1.27	* 1.42
Iowa Average				24.9	2.3		
U. S. Average				23.8	1.4		
U. S. Norm							

* Mean Average for 8 cities.

TABLE NO. 23 B
 SUMMATION: PER CENT OF TOTAL CITY AREA OCCUPIED BY VARIOUS USES

City	Railroad Property	Combined Light & Heavy Industrial and Railroad Property	Streets	Parks and Playgrounds	Public and Semi-Public	Vacant
1. Jefferson City, Mo.	2.71	4.60	13.64	2.18	5.02	56.9
2. San Jose, Calif.		6.20	21.40	0.63	2.53	38.8
3. Cedar Rapids, Iowa	2.54	3.89	10.90	2.47	3.08	66.8
4. Springfield, Mo.	3.08	5.37	18.08	3.32	2.30	36.3
5. Binghamtown, N. Y.	4.00	7.49	13.18	5.93	9.41	36.4
6. Sioux City, Iowa	1.781	3.461	10.517	3.685	3.662	69.973
7. Sacramento, Calif.		5.30	20.94	4.15	3.69	41.5
8. Peoria, Illinois	4.60	10.07	23.11	4.96	3.02	25.1
9. Tulsa, Oklahoma	1.54	4.65	22.00	1.79	3.52	39.4
10. Fort Worth, Texas	4.50	7.21	21.70	4.32	3.17	44.7
Totals						
Mean Averages	* 2.98	5.46	16.90	3.47	3.60	50.49
Iowa Average	3.1	4.2	12.9	1.3	2.4	52.0
U. S. Average	3.2	6.9	20.2	4.0	4.5	39.8
U. S. Norm.						

* Mean Average for 8 cities.

TABLE NO. 24 A

SUMMATION: PER CENT OF DEVELOPED AREA OCCUPIED BY VARIOUS USES

City	Single-Family	Two-Family	Multi-Family	Total Dwelling Area	Commercial	Light Industrial	Heavy Industrial
1. Jefferson City, Mo.	36.0	1.70	0.52	38.22	2.77	2.84	1.56
2. San Jose, Calif.	44.4	1.20	1.70	47.30	2.40	5.86	
3. Cedar Rapids, Iowa	33.3	2.07	1.14	36.51	2.09	2.35	1.72
4. Springfield, Mo.	51.5	0.48	0.30	52.28	2.10	1.84	1.80
5. Binghamtown, N. Y.	27.8	9.62	2.35	39.77	3.58	4.11	1.39
6. Sioux City, Iowa	25.497	0.824	0.770	27.091	1.891	1.662	3.932
7. Sacramento, Calif.	32.6	3.52	1.82	37.94	3.72	4.64	
8. Peoria, Illinois	39.3	1.71	1.39	42.40	2.70	2.08	5.22
9. Tulsa, Oklahoma	40.0	3.26	1.48	44.74	2.59	2.41	2.72
10. Fort Worth, Texas	32.1	0.44	0.46	33.00	1.28	1.79	3.11
Totals							
Mean Averages	35.2	2.02	1.06	38.28	2.24	2.56	* 2.75
Iowa Average				51.2	3.0		
U. S. Average				39.3	2.4		
U. S. Norm							

* Mean Average for 8 cities.

TABLE NO. 24 B
SUMMATION: PER CENT OF DEVELOPED AREA OCCUPIED BY VARIOUS USES

City	Railroad Property	Combined Light and Heavy Industrial and RR Property	Streets	Parks and Playgrounds	Public and Semi-Public
1. Jefferson City, Mo.	6.30	10.70	31.61	5.06	11.64
2. San Jose, Calif.		10.20	34.94	1.02	4.14
3. Cedar Rapids, Iowa	7.65	11.72	32.94	7.44	9.28
4. Springfield, Mo.	4.84	8.48	28.36	5.21	3.61
5. Binghamtown, N. Y.	6.28	11.78	20.75	9.32	14.80
6. Sioux City, Iowa	5.932	11.527	35.025	12.271	12.195
7. Sacramento, Calif.		9.10	35.84	7.09	6.31
8. Peoria, Illinois	6.13	13.43	30.83	6.62	4.02
9. Tulsa, Oklahoma	2.54	7.67	36.26	2.95	5.80
10. Fort Worth, Texas	8.13	13.03	39.16	7.82	5.74
Totals					
Mean Averages	* 6.18	11.04	34.17	7.00	7.27
Iowa Average	6.5	9.0	26.3	3.1	5.4
U. S. Average	5.5	11.4	33.6	6.3	7.6
U. S. Norm					

* Mean Average for 8 cities.

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