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THE KENOSHA CITY PLAN

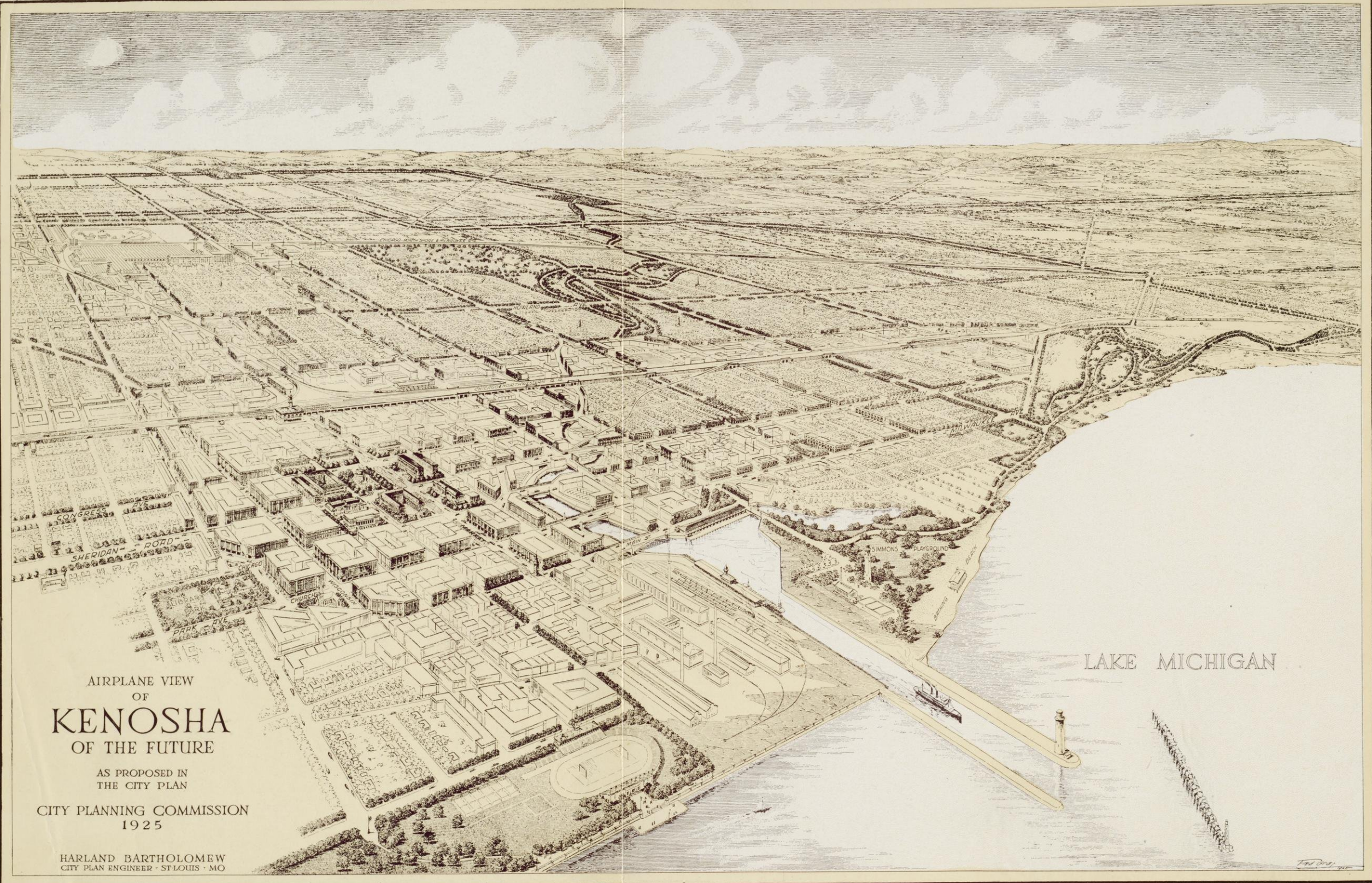


KENOSHA COLLECTION

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LAKE MICHIGAN

AIRPLANE VIEW
OF
KENOSHA
OF THE FUTURE

AS PROPOSED IN
THE CITY PLAN

CITY PLANNING COMMISSION
1925

HARLAND BARTHOLOMEW
CITY PLAN ENGINEER - ST. LOUIS - MO

Handwritten signature or mark

THE CITY PLAN OF
KENOSHA, WISCONSIN

THE CITY PLANNING COMMISSION

1925

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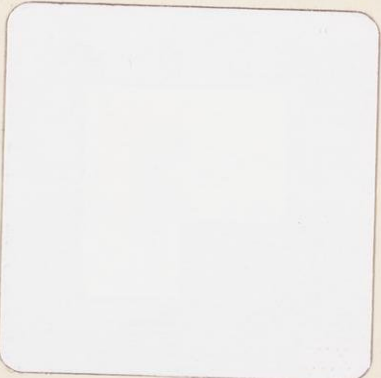
HARLAND BARTHOLOMEW
CITY PLAN ENGINEER
ST. LOUIS

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WILLIAMS-SOONIAE CHAIRMAN
MEMBER OF THE BOARD
1901-02



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H. E. Barden
John Burns

J. A. Foster, Jr.
Robert Nicoll

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P. J. Hurtgen, City Engineer (1922)

C. E. Randall, City Attorney

J. M. Albers, Building Inspector

November 11, 1925.

To the Honorable City Council,
City Planning Commission and City Manager,

Kenosha,
Wisconsin.

Gentlemen:

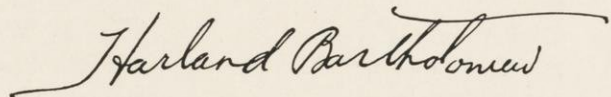
It is with more than ordinary pleasure that I submit herewith a comprehensive city plan for the city of Kenosha. This plan is the outgrowth of more than three years of study and consultation on the part of yourselves and numerous other city officials and citizens, as well as by my associates in this office.

In an extensive experience it has never been my privilege to enjoy more whole-hearted co-operation or a keener understanding of the city's problems, coupled with an unselfish and vigorous desire to direct the growth of the city into the channels of orderliness, economy and beauty. Kenosha is indeed fortunate in the present state of civic consciousness.

The present plan is indeed a guide for the future development of Kenosha. The extensive progress that has been made during the preparation of the plan in the development of the civic center, in street planning, in the expansion of recreational areas, and in the effect of the zoning ordinance upon the growth of the city, all insure a much more logical and desirable type of future city development than has characterized the past history of the city.

May I express my personal appreciation to all of those who have, by their co-operation, made possible the preparation of this plan. More especially would I acknowledge the many kindnesses and attention given this work by City Manager C. M. Osborn and his very capable associates, J. M. Albers, Chief of the Inspection Department and Secretary of the City Planning Commission, City Engineer Robert M. Smith, and Superintendent of Parks Floyd A. Carlson.

Respectfully submitted,



City Plan Engineer

HB-M

EARL O. MILLS

L. D. TILTON

Associates

WM. D. HUDSON

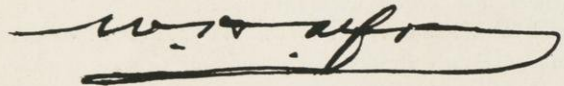
Associate Engineer

FOREWORD

It is the duty of every municipality to provide properly for the health, welfare, and happiness of its people; to protect, conserve, and improve property values, and to this end supply a means whereby future growth and expansion will be accomplished in an orderly, economic and efficient manner. The prosperity of the individual is inseparably bound to the prosperity of the community and a city which makes no provision for the welfare of its citizenry fails in one of its most important functions.

The unprecedented growth of Kenosha in the last two decades has brought forcibly before us the need of a comprehensive plan by means of which its physical development could be guided and proper provisions made for further expansion. The haphazard and unplanned growth of the past and the rapidly increasing demands of the present have demonstrated the need of a proper plan for the future.

With these thoughts in mind and believing, as it does in the bright prospects of Kenosha's future, your Council authorized the preparation of a complete and comprehensive City Plan, which is presented herewith.



President of the Council.

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CITY PLAN ACCOMPLISHMENTS

Several features of the City Plan have been operative for some time and therefore much has already been accomplished in conformity with its provisions.

The outstanding development is the Civic

eighty feet has progressed to the filing of the final report of the commissioners in the Circuit Court and the paving of this street for its entire length is now finished. The old county court house, the county jail, and the municipal



The new Central High School

Center, and this monumental work, conceived less than three years ago, now stands more than half completed. The county court house, as the northern unit, is occupied; the central high school, opposite across the plaza, is rapidly nearing completion, and the site of the plaza is being cleared. In connection with the Civic Center the widening of Sheridan Road to

court have been acquired by the city to be used in the further development of the Civic Center and the widening of Market Street.

Other accomplishments to date are:

The connection of Fremont Avenue and South Sheridan Road.



The recently completed Court House

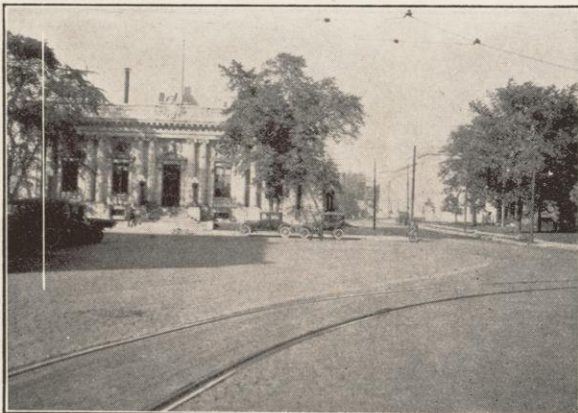
Removal of the jog at North Sheridan Road and Broad Street.

Widening of Sheridan Road bridge.

Opening and widening of Oakland Avenue south of Selma Avenue.

Widening of Milwaukee Avenue north of Limit Street.

Acquisition of land to extend Washington Park south of Bronson Street.

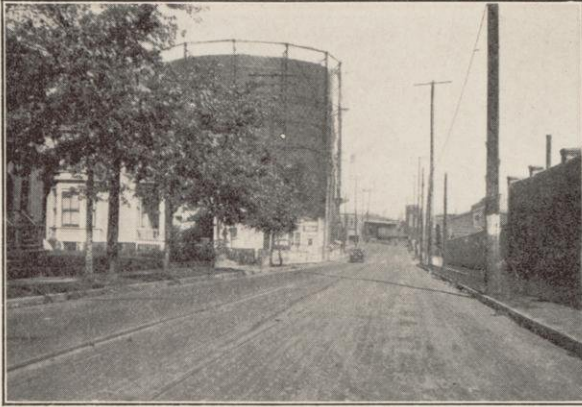


View looking west on Market Street showing present Post Office and new Court House. The Civic Center plan requires the relocation of the Post Office and the widening of Market Street to the line shown



A view of the block which will form the Civic Center Park or Plaza. The city of Kenosha has acquired practically all the property of this block, for the carrying out of the Civic Center plan

T H E C I T Y P L A N O F K E N O S H A



Sheridan Road which is now being widened to 80 feet.



Illustrating the operation of the vision clearance clause of the Zone Ordinance.



Sheridan Road at Prairie Avenue. The widening of this will provide tourist traffic with a continuous straight route through the city.



Howland Avenue which is to be widened to 100 feet in accordance with the proceedings already started.

Dedication of the first section of the 120-foot park and pleasure drive.

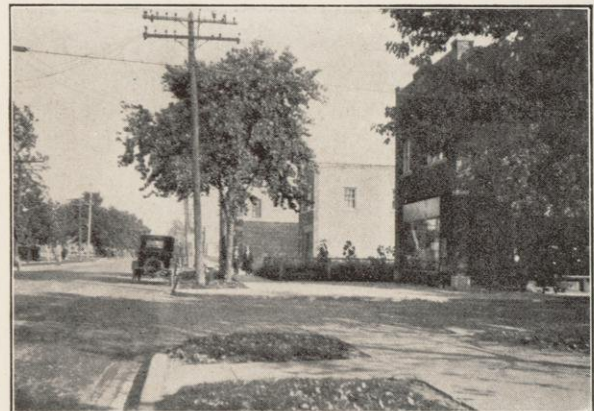
The City Plan Commission has adopted rules which will control the street layout for one and one-half miles beyond the corporate limits and also guide the landowner in future

subdivision within this area. In this connection the City Plan Commission renders a land subdivision service through which the owner can secure a preliminary plat of his land free of charge.

Maps showing the entire street plan ex-



A view of the new park property along the north lake shore recently acquired by Mr. W. H. Alford and associates to be held by them until the city can take over the property.



Commercial buildings recently erected on Grand Avenue voluntarily set back to provide for the future widening of this street.



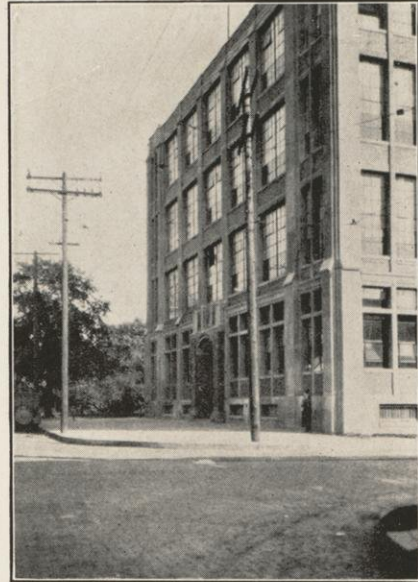
Shore line south of the city three miles of which is proposed as a public reservation by Krenn and Dato realtors and developers of the Mrs. Rockefeller-McCormick properties.

tended one and one-half miles beyond the city limits are now being prepared.

The Major Street Plan is being well protected by the splendid co-operation of the citizens in setting new buildings back to the proposed new street lines. In 1924 \$600,000 worth of buildings were so set back.

All new subdivisions are now laid out in conformity with the land subdivision rules, the projected street system and the Major Street Plan.

In the matter of parks, the public-spirited generosity of Mr. W. H. Alford and Mr. A. H. Lance has placed the city in a position to acquire a splendid area to the north with more than a mile of lake front. Beyond the southern



The managers of the Allen A Company voluntarily agreed to set back this new re-inforced concrete building in order to facilitate the widening of Prairie Avenue

limits lies the Rockefeller-McCormick development of one thousand five hundred acres, and the co-operation of the development with the Kenosha City Plan Commission has resulted in the establishment of a one-hundred foot driveway along the entire lake front of three and one-half miles and the reservation for public use of all of the beach between the drive and the lake shore. The width of this strip varies from one hundred to several hundred feet.

C. M. Osborn

Chairman City Plan Commission.

HISTORICAL NOTE

The early history of Kenosha is contemporaneous with that of the Northwest Territory during the first quarter of the nineteenth century. There were then but two noteworthy white settlements in what is now known as the State of Wisconsin—one at Green Bay and one at Prairie du Chien. The present site of Milwaukee was occupied by a Pottowatomic Indian village and a trading post conducted by Solomon Juneau, and at Chicago there were but few families outside of Fort Dearborn.

The region was rich in game and was a favorite hunting ground for the aborigines whose constant traveling had developed a well defined system of trails which later furnished highways for the early settlers. The wealth of the country was first revealed by the Black Hawk War and when in 1833, the Indians ceded their title, it immediately became the Mecca of prospectors and explorers. There had been tales of mineral wealth in the southwest and north and an abundance of game and easy accessibility by means of the Indian trails induced large numbers of the pioneers to travel toward Wisconsin.

Many of these early settlers, after rounding the southern end of Lake Michigan, turned northward and entered the new country by way of the Jambau trail. This route connected the present site of Chicago and Milwaukee and followed the lake shore as far northward as Crosse Point, where it turned inland. However, it was not long before the travelers left the trail and, attracted by the lake, turned eastward so that by 1834 the shoreland was fairly well known and its advantages were being recognized.

It is thought that the first white man to visit the present site of Kenosha was Mr. Schoolcraft as he says that he camped at a river mouth about thirty-five miles south of the "Milwacky" river, on August 27, 1820. But it was not until 1835 that the first settlers began to appear in Kenosha County, and in March of that year Mr. Hugh Longwell and six others arrived.

They had traveled with wagon by way of the Jambau trail to the mouth of the Root River. After a short stop there they moved southward and stopped at Pike River. Here they found a man by the name of Montgomery and his six sons already established in a log cabin and being satisfied with the site Mr. Longwell and his party halted and established themselves.

In 1835 the "Western Emigration Co." was organized in Hannibal, N. Y. This company was founded for the purpose "of rendering assistance to such of its members as desired to move westward and for the foundation of a desirable community" in the new country. The company appointed a commission to proceed to the lake region and select a suitable location. These men made their first stop at Milwaukee, but found the place already occupied and so continued southward. At the mouth of the Root River they were also unsuccessful and here the commission broke up and some of its members returned to New York. However, Mr. G. W. Turner remained to await the arrival of Mr. John Bullen, Jr. Upon his arrival the two men continued southward and finally fixed upon the mouth of Pike River as the site of their proposed colony. This was in the neighborhood already occupied by the Longwells and Montgomerys and was the real beginning of Kenosha.

During the summer and autumn of 1835 about fifteen families arrived at the location. All, however, were not members of the "Emigration Co.," and these others staked out their claims outside of that held by that organization. The agricultural possibilities of the region began to attract others and by the end of the year there were settled within the limits of the valley of the Pike River, as it was then called, some thirty-two people.

The year 1835 was productive of other events of importance to the infant colony. The establishment of a tavern by Samuel Risque was a notable addition, and when N. R. Allen and John Bullen, Jr., added a general store

T H E C I T Y P L A N O F K E N O S H A

Pike Creek became an important stopping place for travelers. The first survey of public lands in this region was also made this year and the village of Pike Creek platted into lots and blocks.

These early planners showed some vision and an appreciation of good city planning in

only to the river. What is now Milwaukee Avenue was designated as Main Street and is shown as a fine wide avenue, but is not connected across the river.

Blocks 26 and 56 were set off as public squares, as was also the large area on the south side of the town, which is now our Library

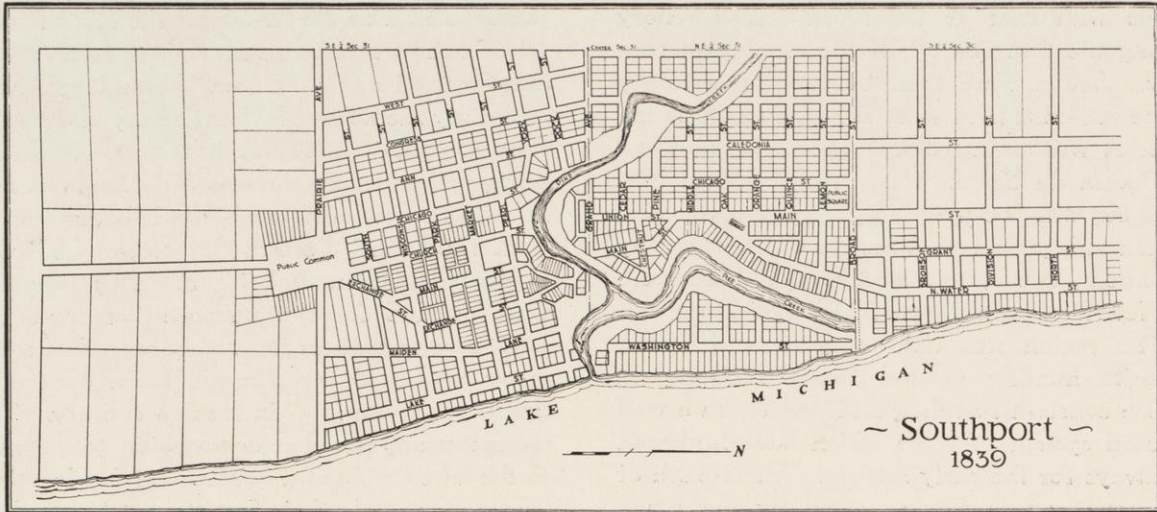


Plate 1.

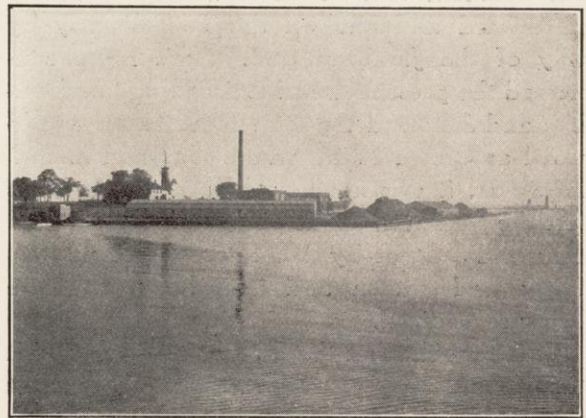
that they designated generous areas for parks, public squares, market places and the future location of public buildings. However, the site was resurveyed in 1839 and a much less liberal policy pursued in the allotment of public lands.

This second survey designated the village limits as Limit Street on the north and Prairie Avenue on the south, the present Chicago and Northwestern Railroad on the west and Lake Michigan on the east. It is most interesting from the standpoint of the present report in that it is there clearly demonstrated that the exercise of sufficient foresight would have been of inestimable value to the thriving community which has grown upon it. It is evident that some streets, at least, were laid out to fit existing conditions and not with an eye to future development or convenience. Exchange Street extended only from Wisconsin to Pearl Street, where it became Front Street. Front Street ran off at an angle to the southwest and converged with another crooked, narrow street and there crossed the river. Main Street ended in the crooked alley before mentioned.

There were no future river crossings provided for and Church Street and Chicago Street ran

Park. No provision was made for lake shore parks and Washington Island was entirely laid out in lots.

In 1837 the name of the place was changed from Pike Creek to Southport, and this year saw the beginning of agitation to secure a proper harbor.



Kenosha harbor around which the old village of Southport developed.

The matter of harbor development had become one of pressing and grave importance. The vast surrounding prairies were giving

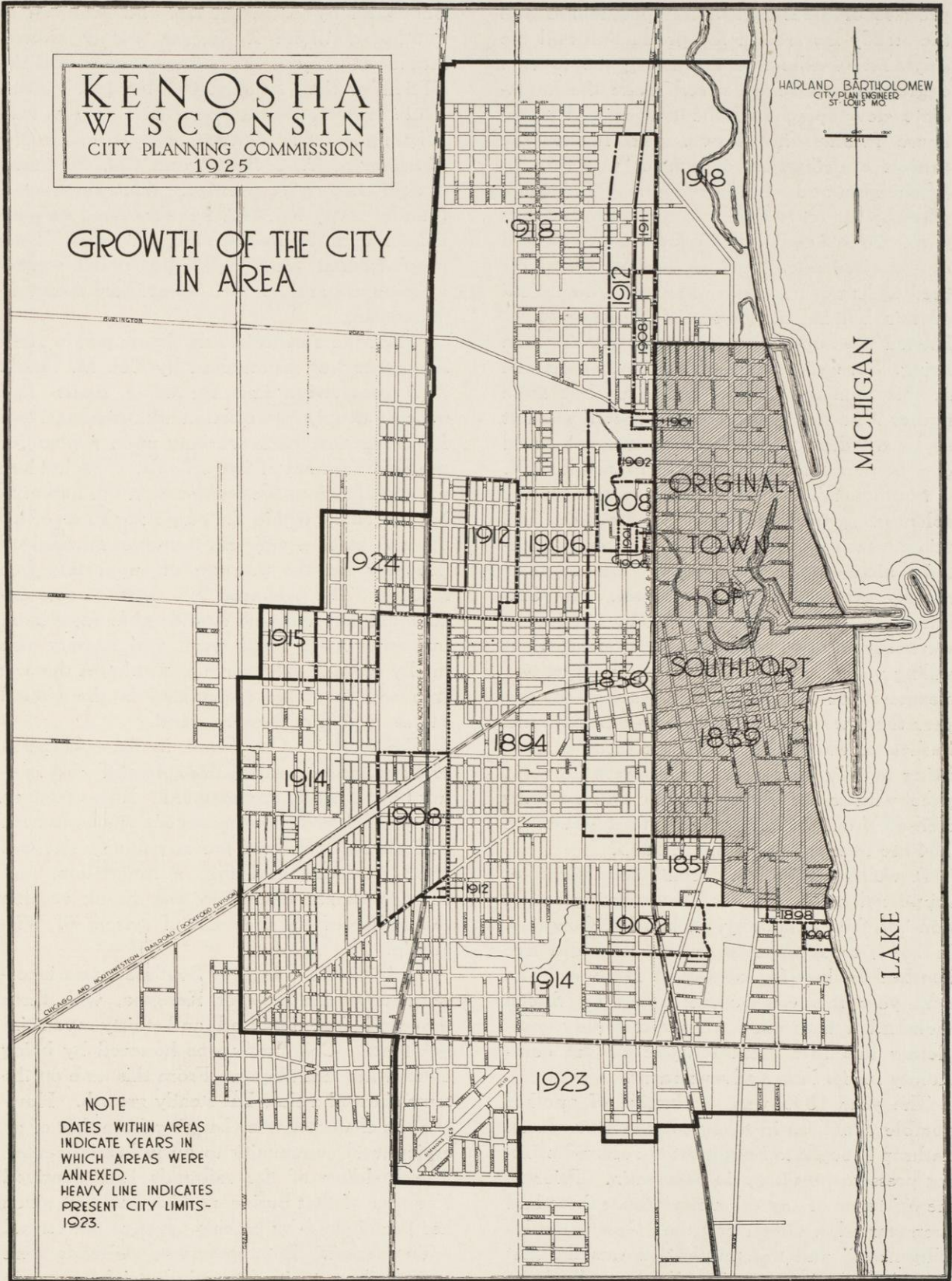


Plate 2.

promise of great agricultural possibilities and the steady increase in the production and the shipment of wheat was bringing the town a degree of importance which made the immediate development of the harbor and warehouse facilities imperative. To further the project a delegation of citizens was sent to Washington and a bill introduced in the Senate whereby the settlers were to be allowed to preempt two lots each. These lots were to be sold at appraised prices and the proceeds used for the building of a harbor. However, the failure of this bill in the House of Representatives blasted the hopes of the pioneers for the time being. Several estimates of the cost were made at this time by Federal engineers, but these figures were so high that some concern was felt as to whether or not the Government could ever be persuaded to undertake the work at all.

Southport furnished a natural outlet for the splendid agricultural lands to the west and this increasing traffic made the people particularly anxious for the proper care of their rapidly growing shipping business. In 1836 but a single steamer called, while by 1838 there were seventy-two steamers and eighty-eight sailing vessels, and in 1843, one hundred two steamers and fifty-one sailing vessels. In this year there were shipped seventy-two thousand bushels of wheat and warehouse facilities were being rapidly increased. The population kept pace with other developments and had increased from three hundred thirty-seven in 1840 to over two thousand in 1843.

A well organized and continuous pressure, supported by a record of the thriving conditions of the community, at last led Congress, in 1844, to appropriate twelve thousand five hundred dollars for Southport Harbor. The next year this was supplemented by fifteen thousand dollars more, thus successfully completing this first great struggle of the community for its future advancement.

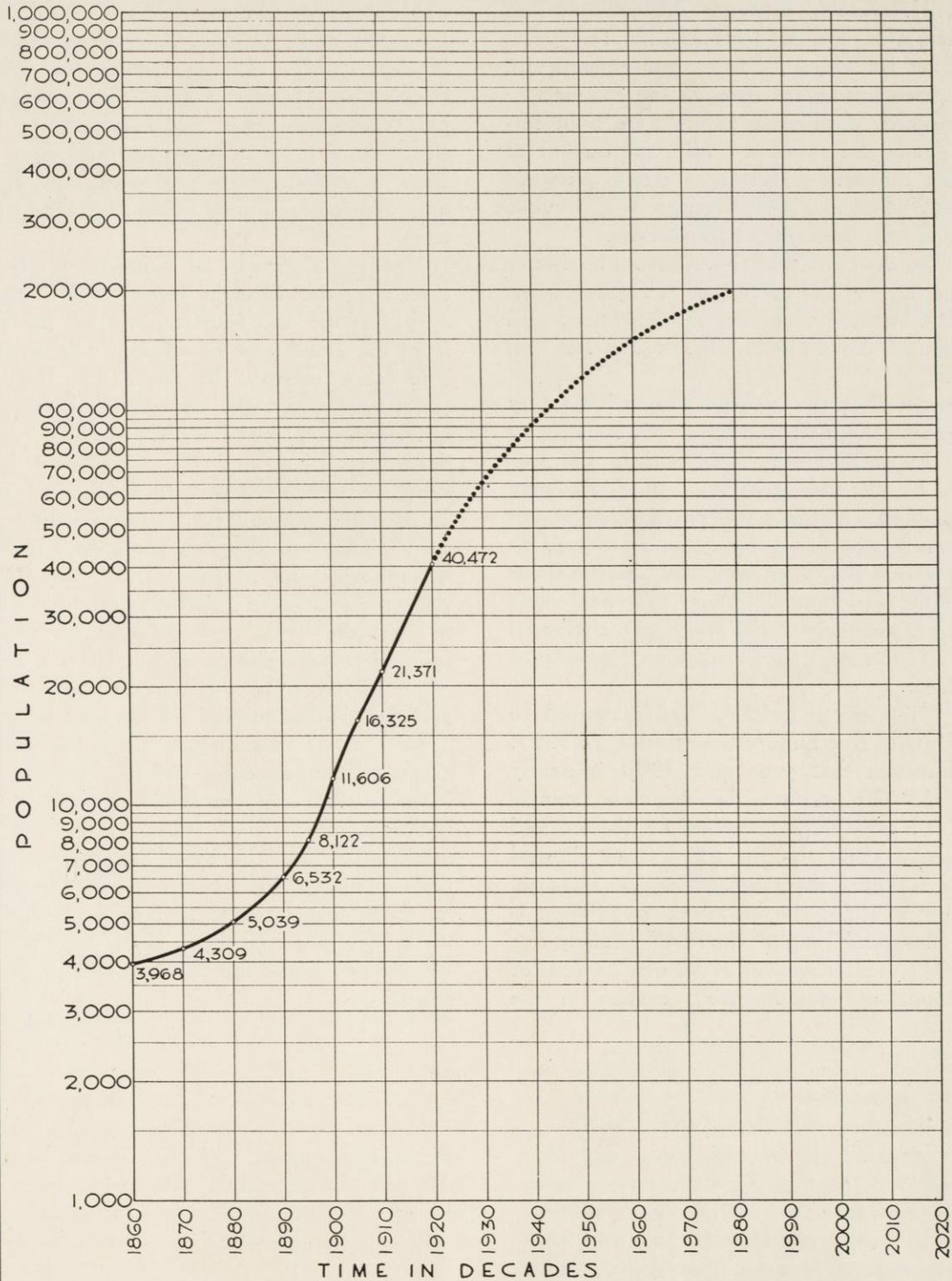
The year 1835 was productive of another notable event, as in that year the Rev. Jason Lathrop brought to Southport the second printing press to be set up in Wisconsin. Prior to the existence of any other newspaper there had been started in Green Bay the "Green Bay Intelligencer," and this publication was the first newspaper printed west of the Alleghany Mountains. Some time later the plant was

purchased by C. C. Scholes and removed to Southport, where it became widely known. Antedating any of the Chicago papers was the edition of the "Southport Telegraph," which made its first appearance in 1840. It was then Wisconsin's only newspaper and under the direction of C. L. Sholes and Col. M. Frank it enjoyed a wide prestige. This newspaper, founded early in 1840, has continued its publication until the present time, and as the "Telegraph-Courier" still makes its regular weekly appearance and is the oldest publication in Wisconsin.

When the Territorial Legislature met in 1845 Southport was represented by Col. M. Frank. This progressive and far-seeing citizen had become deeply interested in education and had for some time been working upon a plan for the establishment of free schools. This led him to introduce into the legislature a bill authorizing the voters within the corporate limits of his town to place a sufficient tax upon all assessed property for the purpose of supporting free schools. The proposed bill created some excitement and met with considerable opposition, but after much hard work and anxiety was finally passed. This gave to Southport the first free schools to be maintained in the United States outside of New England.

The work of Col. Frank in the conception and accomplishment of this splendid work cannot be too highly commended. It was through his great interest and persistent effort that the educational system of the community was laid upon so broad and firm a foundation, and through its consummation Col. Frank became the father of the free school system of Wisconsin.

In 1850 the village of Southport was incorporated as the City of Kenosha, with three thousand four hundred and thirty-seven inhabitants. Col. Frank was honored by being elected the first Mayor. From this time on the town showed a slow but steady growth. However its character was changing from that of an agricultural community to an industrial center. The building of the railroads had deprived Kenosha of that business which had first given her prominence by making Chicago the central grain market. But these same railroads were to contribute to its future industrial growth in a most pronounced manner.



CITY PLANNING
COMMISSION
1 9 2 5

POPULATION GROWTH
KENOSHA - WISCONSIN

HARLAND BARTHOLOMEW
CITY PLAN ENGINEER
SAINT LOUIS

Plate 3.

The main line of the Chicago and Northwestern Railroad, between Chicago and Milwaukee, was laid in 1855, and a few years later the Rockford Division was constructed. These two lines went through the city and as the business developed others were built further out in the country. With the advent of electric railroading Kenosha was connected with two lines, one from Chicago to Milwaukee and one from Kenosha to Milwaukee.

During the Civil War Kenosha had the honor of offering for the service of the government the first enlisted company in Wisconsin, and throughout the struggle always did her full share.

Shortly after the incorporation of the City of Kenosha the industrial life of the community began to expand—the Bain Wagon Co. was started by Mr. Edward Bain, and N. R. Allen had opened a tannery. Both of these manufacturers prospered, and they were followed by the Simmons Bed Company, the Chicago Brass Company, and others. These factories, while not large, were substantial and they contributed largely to the steady and substantial growth of the place.

By 1890 the population had increased to six thousand five hundred thirty-two (6,532), and between that year and 1900 it nearly doubled. The next two decades were remarkable for a very large industrial expansion, and in each of them the Federal Census showed approximately a one hundred per cent increase.

Now, in 1925, the estimated population is fifty thousand eight hundred ninety-one (50,891), and Kenosha is known as one of the important manufacturing centers in the

Midwest. Among its products are such nationally known articles as Nash Automobiles, Simmons Beds, Cooper Underwear, Allen A. Hosiery, Solar Lamps, Hannah's Tables, Pirsch Fire Apparatus, Frost Plumbing goods, MacWhyte wire rope, and many others. The products of these factories run into many millions of dollars each year and they furnish employment for nearly fifteen thousand operatives.

The rapid growth of Kenosha in the last three decades brought home to the citizens very forcibly the shortcomings of the place from the standpoint of efficient city planning. The large increase in population, industry, street traffic and the necessary expansion of other municipal facilities were met with no well developed plan, and the consequent inconvenience and haphazard development brought an insistent demand for a comprehensive city plan. This necessity was recognized by those in authority and in June, 1917, the Council appropriated seven hundred and fifty dollars to start the work, and a committee was appointed to take charge of it. Later a further appropriation of two thousand dollars was lost and the plan languished for the time being.

In 1922 Kenosha again took the initiative among Wisconsin cities and adopted the City Manager plan of government. One of the first important works undertaken by the new administration was the development of a complete city plan. Mr. Harland Bartholomew of St. Louis was retained as consultant and this work, now accomplished, places the crowning achievement upon the one time village of Pike Creek.

J. M. Albers.

MAJOR STREETS

Streets were never more important than they are today. They carry the life flow of the community—vehicles bearing men to and from work, transporting foodstuffs, fuel, building materials, products of factories. They afford entry to homes, stores and industries and passage from one part of the city to another. They are the rights-of-way for utilities. They serve as channels for the circulation of air and the entry of sunlight. The open space of the street frequently offers compensations for the confinements and restrictions of modern tenements and miserly home yards.

The importance of streets implies an interest in their general make-up. The city's arterial system ought to be well planned. In former days, when the traffic problem was not acute deficiencies in streets were easily overlooked. Narrow streets, jogs, abrupt terminations interfered but little with the leisurely movement of horsedrawn vehicles and pedestrians. It was easy for cities to fall into a complacent, planless habit of growth. The laying out of streets was not a matter of great moment except to the owners of property so the public responsibilities of the land platter were overlooked and the interests of the community often neglected.

Today, however, the city finds itself obliged to recover control of street development. Its advancement and general well-being both depend upon traffic circulation, which in turn requires a good street system. The planning of thoroughfares for the future city is a work too important to be left solely to individuals who are platting land. The faults and deficiencies resulting from their haphazard efforts in the past are becoming more and more apparent. Traffic requirements of the community as a whole demand systematic and co-ordinated street development and this can be obtained only by municipal guidance and control.

Streets must be classified and planned with greater regard for their uses. They can no longer be considered all alike. Present day traffic loads give certain streets extraordinary importance. Because of length, direction,

width or gradient, they carry an abnormal share of the vehicular movement. They may today, because of previous planning methods, be inadequate in capacity, overloaded or improperly placed, but their function is unquestioned. They are deserving of first consideration in planning a larger, better city.

They are major thoroughfares—the supporting members of the city wide framework of streets. It is possible to classify the streets of the city as follows:

Major Streets

(a) Radial or arterial thoroughfares.

These are the primary traffic-ways that serve the heart of the city. They should radiate from the center like the spokes of a wheel. If secondary or more outlying centers develop these should have intercommunication by streets of this type.

(b) Cross-town thoroughfares.

These are the section and half-section line streets, secondary traffic-ways that form a large and regular rectangular pattern.

Minor Streets

The local residential or industrial by-ways, tributaries of the major thoroughfares. They serve limited areas and as a consequence require less special planning and control.

Special Service Streets

In this class are boulevards, parkways and thoroughfares of similar type. They should be fitted to and supplement the more utilitarian streets.

In the street plan of the modern city all these elements should appear. If their disposition or general layout is systematic there will be arterial thoroughfares available to carry traffic directly to or from every section of the city. It will be easy to move across town or out to important industrial or commercial centers. The heavy through traffic movement will have its own channels, leaving the minor streets quiet and well-kept for homes or undis-

turbed for industry or special use. With adequate utilitarian traffic ways available, the dignity and character of pleasure drives may be maintained by suitable traffic restrictions. Paving problems are simplified and transit planning becomes easier. The development of a street system of this sort is practically a new municipal problem.

Major Street Planning

The desire of modern traffic is for ease, comfort and speed in getting about. This desire can only be satisfied completely by a system of commodious major thoroughfares. All heavy-duty streets must be co-ordinated and to be effective should have the following characteristics:

Continuity—Of all the characteristics which must be impressed upon major streets none is more important than continuity. Major streets should be thoroughfares in every sense of the word.

Directness—Major streets, without violating the dictates of topography, should follow the route.

Width—Major streets should be distinguished by adequate width. Width should be based upon the maximum anticipated traffic load. The "street" from property line to property line is public property; its crosswise dimension limits the roadway width and consequently its traffic carrying ability.

Properly Designed Roadway—The total street width should anticipate future needs; the roadway can be adapted to present requirements. The roadway of a major street should be planned for a specific number of **lines of vehicles**, always an even number. The following standards are commonly accepted. (See Plate No. 4).

Four-Line Streets—no street cars:

The **minimum acceptable** width for streets of this class is **66 feet**. This permits a 36-foot roadway and 15-foot sidewalk space on either side. The **recommended width** for four line streets is **80 feet**. This street width will admit widening of the roadway to accommodate six lines and will also be adequate for either a single or double track car line.

In preliminary stages the 80-foot street, developed with only a four line roadway, offers a more satisfactory planting space for trees and otherwise adds dignity to residential districts.

Six-Line Streets:

No transit thoroughfare should be less than a six-line effect. The **minimum width** for this type should be **80 feet**. This permits a roadway of 54 feet without street cars and 56 feet with them. The sidewalks are ample but cannot be reduced to permit further widening of roadway for angular parking.

One hundred feet is a more suitable width for a six-line street. It is commodious and readily convertible. It can be made an eight-line thoroughfare with transit facilities, if necessary. In residential districts, before the growth of the city warrants intensive development, the 100-foot street can be made very impressive.

Eight-Line Streets:

The **eight-line street should be 120 feet wide**. One hundred feet will suffice but this width will be insufficient to permit the angular parking which is commonly desired. In generous anticipation of future growth, a width of 120 feet on arterial thoroughfares will not be found excessive.

The above are standards for **major streets**. It must be emphasized that width should be a dominant characteristic of the "through," utilitarian traffic ways.

Minor streets and special service streets may have such widths as will satisfy the requirements of local traffic. If a special effort is made to place wide streets where wide streets belong, minor streets may be made correspondingly conservative of space. The width of an eight-line thoroughfare is largely wasted on a short, local by-way. If impressiveness is desired on a narrow street, it can be secured by enforcing a building line that will keep the houses back and permit the planting of trees along street lines. Minor streets of residential character often need only a two or three-line roadway. The width of minor streets, however, should seldom be less than 50 feet.

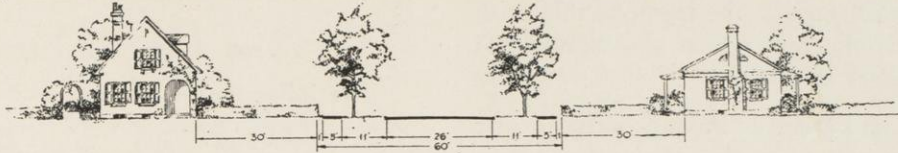
Easy Gradient and Smooth Curves—Major streets in rugged topography should be so located as to avoid steep grades. Major streets are for heavy traffic and should, in every feature, be designed to facilitate the move-

PROPOSED DEVELOPMENT OF MAJOR AND MINOR STREETS KENOSHA - WISCONSIN

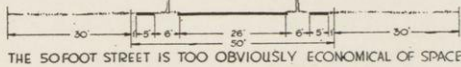
HARLAND BARTHOLOMEW

ST. LOUIS MO.

CITY PLAN ENGINEER



EXTREME WIDTH ON PURELY LOCAL RESIDENTIAL STREETS IS UNNECESSARY, EXCEPT FOR EFFECT

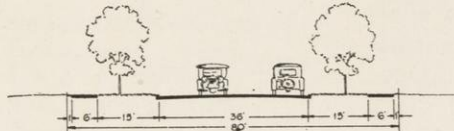
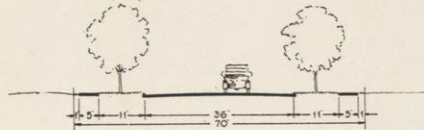
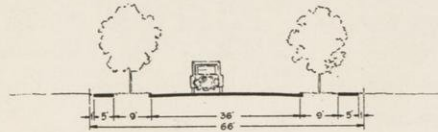


THE 50 FOOT STREET IS TOO OBVIOUSLY ECONOMICAL OF SPACE

A 60 FOOT WIDTH SHOULD BE THE STANDARD. A BUILDING SET-BACK LINE WILL GIVE SPACIOUSNESS TO THE DISTRICT.

RESIDENTIAL STREETS

FOUR LINE THOROUGHFARES

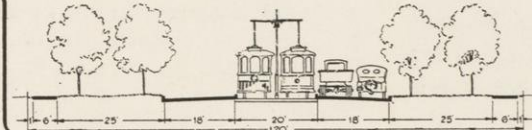
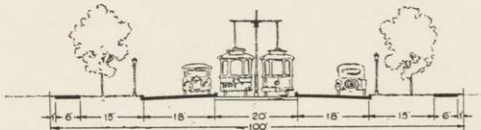


A 66 FOOT STREET IS THE NARROWEST THAT WILL COMFORTABLY CARRY 4 LINES OF TRAFFIC. IT IS READILY CONVERTIBLE INTO A LOCAL BUSINESS THOROUGHFARE. REMOVAL OF TREES AND INCREASE OF ROADWAY WIDTH TO 48 FEET WILL PERMIT 2 LINES OF PARKED VEHICLES AT 45° & 2 MOVING LINES.

A 70 FOOT STREET OFFERS A BIT MORE SIDEWALK AND TREE SPACE. SUCH A STREET ALSO CAN BE CONVERTED INTO A "CAR LINE" THOROUGHFARE IF NECESSARY. A "CAR LINE" CROWDS THE 66 FOOT STREET.

THE 80 FOOT STREET IS ECONOMICAL OF SPACE YET WIDE ENOUGH TO CARRY EITHER 4 OR 6 LINES OF TRAFFIC INCLUDING STREET CAR. IN ALL NEW PLANNING CAR LINE STREETS SHOULD NOT BE LESS THAN 80 FEET WIDE.

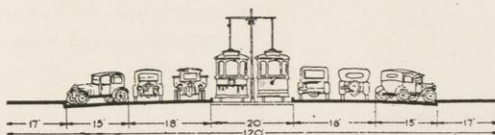
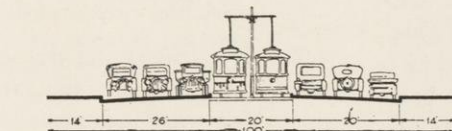
SIX LINE THOROUGHFARES RESIDENTIAL



THE 100 FOOT STREET IS A SPLENDID 6 LINE STREET CAR THOROUGHFARE IN RESIDENTIAL DISTRICTS ITS WIDTH GIVES IT GREATER DIGNITY AND CHARACTER. FOR BUSINESS USE THE ROADWAY CAN BE INCREASED TO CARE FOR ANGULAR PARKING WITHOUT RESTRICTING SIDEWALK WIDTH.

THE 120 FOOT STREET IS A CONVERTIBLE 6 OR 8 LINE THOROUGHFARE. IT HAS A BOULEVARD ASPECT IN RESIDENTIAL NEIGHBORHOODS AND MAY BECOME A BUSINESS STREET OF UNLIMITED USEFULNESS.

EIGHT LINE THOROUGHFARES BUSINESS

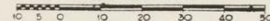


THE 100-FOOT STREET MAY BE DEVELOPED AS AN 8-LINE THOROUGHFARE BUT IT IS SCARCELY WIDE ENOUGH FOR 6-LINES AND ANGULAR PARKING

THE 120 FOOT STREET IS BETTER AS AN 8-LINE BUSINESS THOROUGHFARE. ANGULAR PARKING IS POSSIBLE AND SIDEWALKS ARE MORE COMMODIOUS

MAJOR STREETS

SCALE IN FEET



ment of such traffic. Excessive grades on a major street will repel traffic and force it to take neighboring minor streets not paved or otherwise intended for such loads. In adjusting the line of the major street for grade, changes in direction should be made by easy curves. Abrupt angles are incompatible with present day traffic movement and should not appear on major streets.

Attractive and Durable Paving—The paving of major streets should reflect their importance. Pavements should be designed to invite and carry heavy traffic. A systematic paving program based on the major street plan can be made a means of great economy in the development of the city. Much paving that is wasted annually through abuse of streets can be saved by a properly designed and improved system of major thoroughfares. If the surfacing of these heavily used streets is attractive and durable there will be no shifting of the traffic flow. Strictly minor streets can then be improved with less expensive pavements.

Suitable Curb Radii and Other Safety Measures—In the improvement of streets the effect of the curb radius at the corner is frequently overlooked. Old standards no longer suffice. The corner of three-foot radius, easily negotiated by horse-drawn vehicles, is a traffic hazard today. It throws the turning motor car, almost regardless of speed, out of its proper channel and into the line moving in the opposite direction. It confuses both motorist and pedestrian. The design of street intersections is a problem to be solved with due regard for the safety of all users of the street, pedestrians as well as motorists.

In planning extraordinarily busy thoroughfares, the service of safety islands should also be considered. Many intersections are dangerous because they lack clearly defined rights-of-way for vehicles and pedestrians. It is a matter of record that traffic accidents on one-way streets are practically negligible. Safety platforms serve to divide the thoroughfare into distinct one-way channels.

Proper lighting is another need of every major street, scarcely less important than suitable paving and well designed intersections. It should be unnecessary on major streets for the motorist to use the powerful headlights

needed for country driving. A dark traffic way, poorly surfaced and lacking safety features, encourage the use of illegal headlights and the hazards of the street increase as a consequence. Lighting must form an integral part of future major street improvement.

The Use of Streets

The influence of modern traffic upon major street design extends even beyond planning for adequate over-all width and proper direction. As a complement of the major street development plan there should be prepared a program of minor improvements and changes of policy to make the accommodation of traffic on all streets easier and safer.

Paving width should be based upon lines of vehicles. The following principles should be followed in determining roadway widths:

- (a) The unit width of roadway for moving vehicles should be nine feet; for standing parallel to the curb, eight feet; for parking at thirty degrees, twelve feet; forty-five degrees and at right angles to curb, fifteen feet.
- (b) Roadways should be paved for the most economical accommodation of vehicles. In the downtown district where parking space is greatly needed, the paving on each street should be of sufficient width to care for vehicles standing at a certain angle on either side and a definite number of moving lines in the center. Extra width merely contributes to the traffic hazard. Once the roadway width is determined by presumption of parking at a certain angle, traffic regulations should be devised to insure the use of the street in this way. A roadway planned for forty-five degree parking on either side and two moving lines, with parking lines painted on the pavement, is a safe street. If parking becomes irregular, the variable extra roadway space so released invites dangerous driving. Streets are made safe by being used under definite regulations. Note the following roadways for specified uses:
 - Four parallel lines, vehicles moving or standing, no street cars, 36 feet;
 - Four parallel lines and one center car line, 46 feet;
 - Two lines moving vehicles and parking at 45 degrees on both sides, 48 feet;
 - Four parallel lines, vehicles moving or standing and double car line, 56 feet;

Two lines moving vehicles, two standing at 45 degrees, double car line, 68 feet;
 Four lines moving vehicles, two standing at 45 degrees, double car line, 86 feet.

- (c) The placing and routing of street car lines should be thoroughly in accord with the major street system and traffic regulations. The transit facilities of Kenosha today have been disposed with little regard for major traffic ways.
- (d) Major streets should be wide when first laid out. Their development as traffic carriers can always be suited to the needs of the time.

Consult Plate No. 4.

In directing the proper use of streets, rules are necessary. The moving vehicle is the vital one and in developing and prescribing the use of major streets this fact should be constantly in mind. If standing vehicles are permitted, they should not absorb roadway space at the expense of traffic flow. Regulations should be drawn up and rigidly enforced to insure the roadway being used for the purpose for which it was designed.

Control of Street Planning

The foregoing is but a brief statement of the fundamental principles of modern street planning. It can readily be seen that a plan of streets suited to the traffic needs of the modern city is not to be devised by hit or miss methods. The major streets of the future Kenosha must constitute an organic, functional system. Topography, railroads, industries, trunk-line highways, street railways, vehicular loads and speeds, the pedestrians, the character of home districts must all be taken into account. Manifestly streets of this type should be subject to a form of control that will bring to their development the advantages of thorough study and planning.

A measure of municipal control over land platting operations is obviously necessary in carrying out a scientific street plan. For many years the streets of Kenosha have been laid out by individuals under no compulsion to consider the interest of the community in their activities. The individual in subdividing land in streets and building lots was free to satisfy his own wishes. Regardless of the convenience or desires of others he could lay out his land

with narrow and disconnected streets, and could plan niggardly building lots which invite future congestion. As a protest against this abuse of personal privilege and to permit the city itself to have some control over its own destinies, the legislature has granted authority to the city to review land plats before their acceptance for record. Municipal control extends a mile and a half beyond the city limits in order that no land platting which is likely to affect the future city may be unregulated. The city is concerned quite as much with plats outside the city as it is with those inside the present boundaries. The exercise of control over street planning is a vital function of the city. The responsibility should rest in a City Planning Commission equipped with studied plans for all phases of the city's growth.

Land Subdivision

Those who purchase agricultural land in acreage for development as city property should, as a matter of public interest, observe certain principles and standards in the subdivision of this land. The welfare and convenience of the community at large, as well as of those who will own the subdivided property or live on it demand:

First, that the layout of streets have the best possible relationship to the topography.

This means that if the ground is rugged the streets should not all be straight, the blocks perfectly square. There are many acres in or near Kenosha that should bear only an occasional straight street. Gently curving highways, shaped to the water courses and the rise and fall of the ground, will produce more useful and attractive lots and avoid steep, expensive streets.

Second, that the thoroughfares, the heavy traffic major streets, be laid out without break and of adequate width.

If the subdividers of land will respect the interest of the community in these very useful, necessary arteries of commerce and industry they will greatly aid the growth and development of their city. Minor streets should be tributaries of the major thoroughfares. The major streets of Kenosha have never heretofore been designated and as a consequence many of them have suffered.

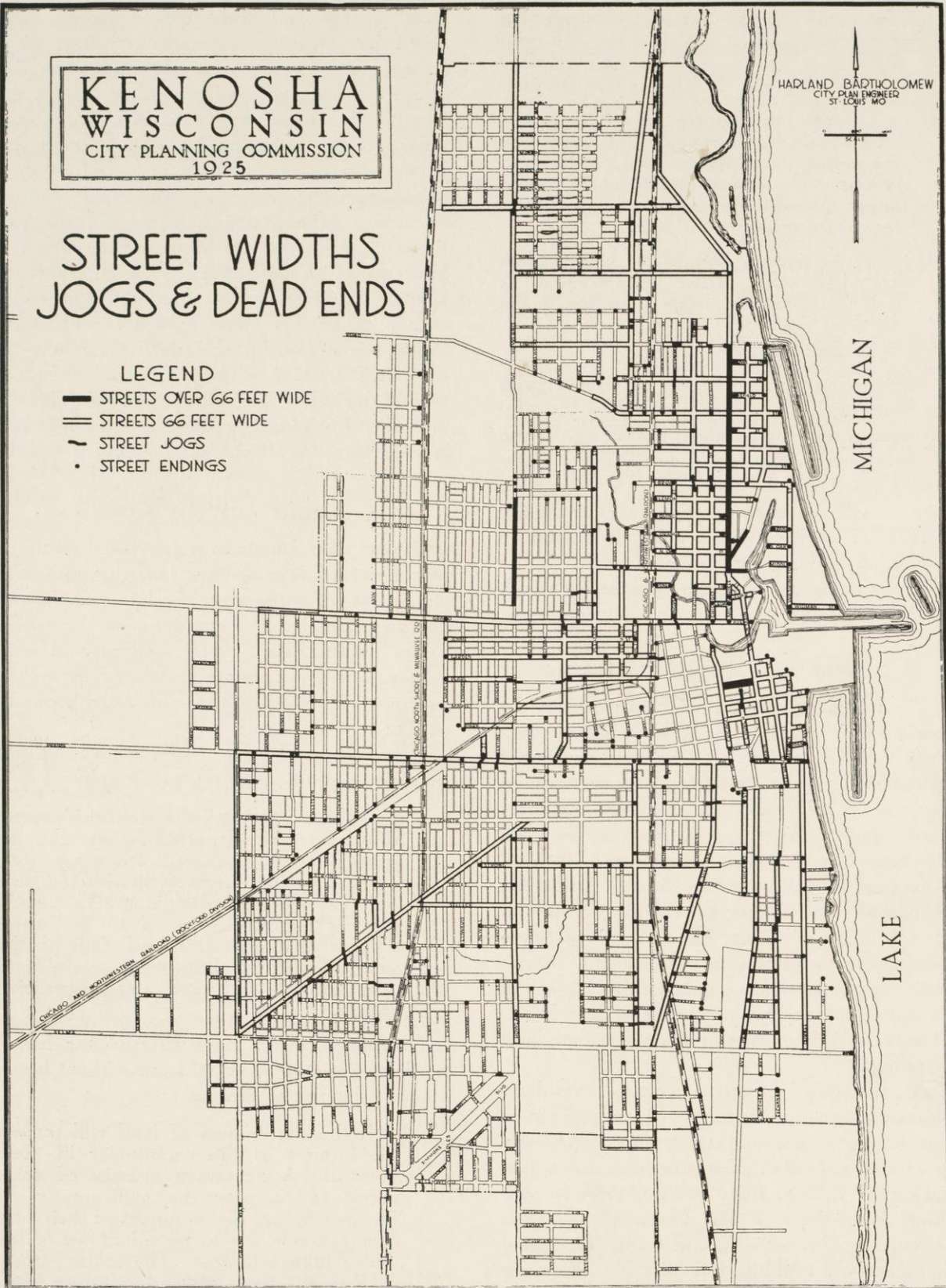


Plate 5.

Third, that the accepted standards of modern land platting be observed in the determination of lot and block sizes and the general treatment of subdivisions.

The tendency is to make blocks longer and to make lots wider and less deep. A lot size 50 x 120 feet may be taken as an all-around standard, giving 6000 square feet for single family homes, no excess depth and ample yard space at front, sides and rear. Lots of this proportion are not as wasteful of land space as conventional narrow, deep lots, and should sell for no more, regardless of increased frontage. If frontage is at a premium the width may be reduced to 40 feet, but no lots designed to produce a healthy, livable city, should be less than this in width. Reduction of depth is preferable. A building set-back line of 20 or 30 feet will give spaciousness to the subdivision. Side lot lines should always run at right angles to the street line, regardless of the resulting shape of the lot. Lots of variable shape, resulting from gently curving streets, can often be made more attractive for home sites than monotonous uniform rectangles.

Fourth, that the attractive influence of recreational features, parkways, boulevards, playgrounds, plazas, small squares and neighborhood parks be fully recognized.

Realtors in certain cities have found that ten per cent of the area of their tract, if developed as park, will return its acreage value many times over in increased sales. By following a "ten per cent" rule the men who promote land for city use will be building a better city.

Fifth, that wherever possible areas be developed as unified, harmonious, local centers, with sites for schools, churches, libraries, commercial groups, and similar features definitely planned and distinctly marked.

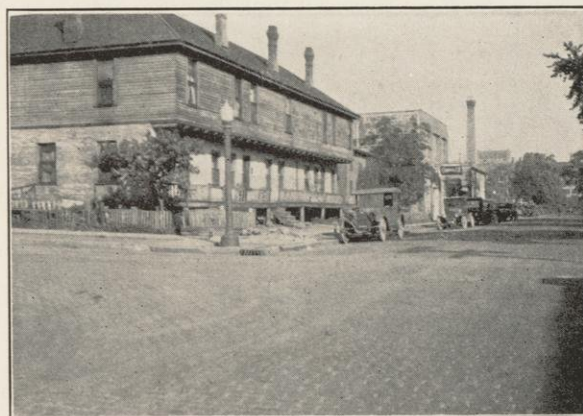
A special effort should be made to secure a whole-hearted co-operation among realtors in carrying out these principles. Every piece of property that is subdivided in streets and building lots within three to five miles of the present city limits bears an interest for Kenosha. The men who thus put property upon the market should recognize the interest of the city in what they are doing. The city, if necessary, should be able to require that its

wishes, especially as regards its major street plan, be fully respected. For the guidance of land subdivision the City Plan Commission should further adopt a set of rules by which all plats and subdivisions may be judged. A suggested set of such rules follows. (Appendix B.):

Existing Streets

The street system of Kenosha will have to carry an increasing traffic load. It will be the nucleus of the greatly enlarged street system of the future city. If it is deficient, the opportunity for healthy, symmetrical city growth will be denied. The streets of the Kenosha of today must be put in shape to carry the traffic of the larger city. It is important, therefore, to know their deficiencies. Briefly they may be classified as follows:

1. **Plan**—A consistent rectangular system of platting has been followed outside the old city of Southport. This method, pursued alike on level ground, hill and valley, has produced a number of streets of limited usefulness. The Pike Creek Valley is but slightly developed because of the forbidding character of the terrain. As viewed from the standpoint of rigid, rectangular street platting this territory has little value. Similar conditions prevail also to a lesser degree in the Jerome Creek Valley.



Old buildings in the district east of Main Street. Lack of through streets has retarded circulation here and caused the decline of this district.

In the old village of Southport the rectangular plan of streets has been varied, but generally with little benefit to the community. In

what is now the heart of the city the streets of importance have very poor connections. The jogs and dead ends are shown on Plate No. 5. There is but one continuous thoroughfare serving the central business district, the Milwaukee-Main-Park Avenue route. It too has limitations which will be discussed later. The arteries which should serve the heart of the city suffer from changes in alignment, abrupt terminations and jogs, as may be seen by a glance at the plate above referred to.

The general plan of Kenosha's present street system, however, aside from the awkwardness of the arrangement in the central section, is fairly well suited to the needs of a larger city. There are several important radial entries, Salem Avenue, Burlington Road, Sheridan Road south. Streets on section and half-section lines are continuous except for the failure to carry Albers Street through to Broad, breaks in the line of Selleck Avenue and Pleasant Street and lack of railroad crossings on several others.

2. **Width**—Streets are deficient in width. Market Square is the only street over one hundred feet wide. Milwaukee Avenue is ninety-nine. A short section of Howland Avenue, between Slosson and Orchard, is seventy-one. The remainder of the system is made up of streets sixty-six, sixty, forty-nine and a half, and less in width.

The total length of streets of each width is shown in the accompanying table:

Width of Street	Total Length	Per Cent of Total Street Mileage
132'	730'	.1
99'	4,360'	.7
70'	3,100'	.5
66'	184,820'	31.1
60'	151,320'	25.7
50'	170,100'	28.7
49½'	48,660'	8.2
Less than 49½'	28,410'	4.8
	591,500'	99.8

Plate No. 5 shows the disposition of these respective street widths in the city. It will be observed that there has been no system to the determination of width. Where wide streets are needed, sixty-six feet or less width is found. The city is thus practically stamped as a "four-

line" community, since its thoroughfares are incapable, in their present width, of carrying a larger number of lines of vehicles.

3. **Parking and Traffic Flow**—Because of the conditions noted above, traffic flow and parking problems in Kenosha are certain to become more acute. Business expansion is now uncertain because of the inadequacy of downtown streets, as shown in Plate No. 5.

The present arrangement of streets, moreover, introduces complications in the handling of "through" traffic. The city is on a much-traveled highway between Chicago and northern Wisconsin. A great deal of the "tourist" traffic, without justification and with some inconvenience, is routed over Main Street. A suitable through route, north and south, is not available. The placing of car lines, likewise, has been haphazard and not based upon a broad plan of traffic circulation and heavy-duty streets.

In brief, the street system of Kenosha needs systematizing. The business section should have more suitable approaches. Several streets within this district need connections that will give them a larger share of the traffic flow. The arteries of the city should have greater width. An organic scheme of "through" traffic ways is needed to give the city of the future strength and stability.

A Major Street System

Prospect of growth brings an obligation which Kenosha cannot afford to overlook. If the city were at a standstill there would be no necessity of formulating a major street plan. But every indication points to rapid expansion. The city must prepare itself for a larger population, increased commercial and industrial activity and better living conditions. Streets, because of their unequalled importance, deserve special consideration. Future demands must be anticipated in all street development.

There are two phases of the street improvement program; one remedial, the other preventive. The former deals with existing streets, the latter with the placement and width of streets not yet laid out. The new streets may be studied in the major street plan, Plate No. 6. Existing streets proposed as major thoroughfares are as follows:

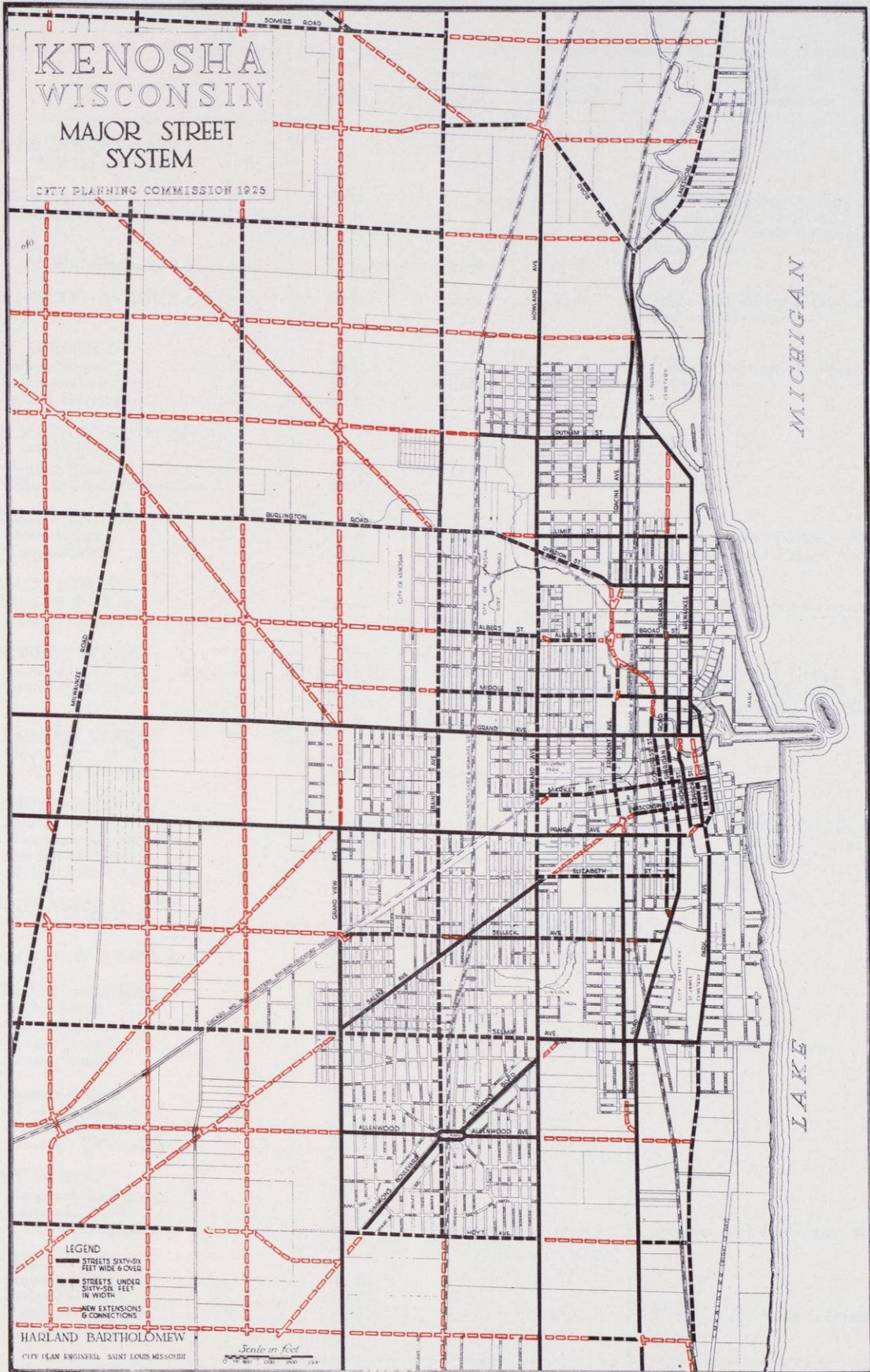


Plate 6.

T H E C I T Y P L A N O F K E N O S H A

NAME OF STREET	PRESENT WIDTH	PROPOSED TRAFFIC CAPACITY	PROPOSED ULTIMATE WIDTH	DEFECTS OF STREET TO BE CORRECTED
ALBERS STREET AND BROAD STREET				
Albers				
Bain-Howland	60 ft.			Albers should be extended westward. Correct jog at Howland. Connect with Pike Creek thoroughfare and Broad Street.
Howland-Pleasant	44 ft.			
Broad				
C. N. W.-Milwaukee	66 ft.	4 lines	66 ft.	
ALLENWOOD AVENUE	66 ft.	4 lines	66 ft.	Exists only between Bain and Howland, outside city.
BAIN AVENUE				
Selma-Salem	50 ft.	} 4 lines	66 ft. throughout	Connect between Burlington Road and Bronson.
Salem-Selleck	66 ft.			
Selleck-Burlington	60 ft.			
BURLINGTON ROAD AND DIVISION				
County Road	60 ft.	8 lines	100 ft.	
Old city limits-Milwaukee	66 ft.			
CHICAGO STREET				
Park-Harbor	66 ft.	4 lines	66 ft.	Extend across Harbor. Make new connection with Prairie Avenue.
Grand-Middle	66 ft.			
CHURCH STREET				
Park Pl.-Park St.	66 ft.	} 6 lines	80 ft.	Extend north across Harbor to join Milwaukee.
Park St.-Market	40 ft.			
CONGRESS STREET				
Strong-Grand	49.5 ft.	4 lines	66 ft.	Eliminate jog at Grand. Connect with Sheridan Rd. south of Strong. Extend northward in Pike Creek valley.
Grand-Pike Creek	66 ft.		throughout	
ELIZABETH STREET				
Howland-C. N. W.	60 ft.	} 4 lines	66 ft.	
C. N. W.-Sheridan	49.5 ft.			
FREMONT AVENUE				
Selma-Prairie	66 ft.	} 4 lines	66 ft. throughout	Connect between Prairie and Wisconsin. Eliminate jog at Middle. Connect with Racine.
Wisconsin-Garden	49.5 ft.			
Garden-Middle	66 ft.			
Middle-Pike Creek	49.5 ft.			
GRAND AVENUE				
W. Limits-Main St.	66 ft.	8 lines	100 ft.	
GRANDVIEW AVENUE	66 ft.	6 lines	80 ft.	
HOWLAND AVENUE				
Selma-Salem	66 ft.	6 lines	80 ft.	Correct jog at Putnam.
Salem-Prairie	49.5 ft.	} 8 lines	100 ft.	
Prairie-Grand	50 ft.			
Grand-Slosson	71 ft.			
Slosson-Albers	46 ft.	} 6 lines	80 ft.	
Albers-Burlington	50 ft.			
Burlington Rd.-Limit	60 ft.			
Howe-N. City Limits	66 ft.			
LIMIT STREET				
Howland-Racine	66 ft.	} 4 lines	66 ft.	Connect with Burlington Road.
Racine-C. N. W.	40 ft.			
C. N. W.-Chicago	66 ft.			
MARKET STREET				
Howland-Ridge	66 ft.	} 6-8 lines	80-132 ft.	Widen to 132 ft. to railroad.
Ridge-Pleasant	60 ft.			
Pleasant-Chicago	49.5 ft.			
Chicago-Main	132 ft.			

T H E C I T Y P L A N O F K E N O S H A

NAME OF STREET	PRESENT WIDTH	PROPOSED TRAFFIC CAPACITY	PROPOSED ULTIMATE WIDTH	DEFECTS OF STREET TO BE CORRECTED
MIDDLE STREET				
Bain-Pleasant.....	60 ft.		66 ft.	
Pleasant-Milwaukee.....	66 ft.	4 lines	throughout	Extend west from Bain.
MILWAUKEE AVENUE				
Grand-Middle.....	66 ft.			
Middle-Limit Street.....	99 ft.	4 lines		
Limit St.-N. Limits.....	66 ft.			
PARK AVENUE				
Selma-Deming.....	66 ft.		66 ft.	
Deming-Park Pl.....	50 ft.	4 lines	throughout	
PARK PLACE AND MAIN STREET				
Park Place				
Park Avenue-Main.....	60 ft.			
Main Street		4 lines	66 ft.	
Park Pl.-Milwaukee.....	66 ft.		throughout	
PRAIRIE AVENUE.....	66 ft.	8 lines	100 ft.	
PUTNAM STREET				
Howland-Milwaukee.....	66 ft.	4 lines	66 ft.	Extend westward.
RACINE AVENUE				
Division to N. Limits.....	66 ft.	4 lines		
SALEM AVENUE				
Selma-Elizabeth.....	66 ft.	8 lines	100 ft.	Should be extended to connect with South St., also to the southwest.
SELLECK AVENUE AND EVERGREEN STREET				
Selleck				
Grandview-Western.....	50 ft.			
Western-Bain.....	60 ft.			
Salem-Howland.....	66 ft.			
Howland-Pleasant.....	60 ft.			
Elm-Engle.....	40 ft.	4 lines	66 ft.	Consolidate several lengths as one thoroughfare.
Evergreen Street				
C. N. W.-Sheridan.....	50 ft.			
SELMA AVENUE	66 ft.	6 lines	80 ft.	
SHERIDAN ROAD				
Selma-Prairie.....	66 ft.			
Prairie-Grand.....	49.5 ft.	6 lines	80 ft.	Eliminate jog at Broad. Extend northward from Limit Street to meet Milwaukee Avenue.
Grand-Pine.....	50 ft.			
Pine-Limit Avenue.....	66 ft.			
SIMMONS BOULEVARD.....	120 ft.	6 lines	120 ft.	Extend to connect with Selma Ave.
SOUTH STREET				
Fremont Ave.-Main St.....	49.5 ft.	6 lines	80 ft.	To join Salem Avenue extended.

The improvements which will be needed to increase the serviceability of these older thoroughfares may be classified as:

1. Widenings.
2. Openings or connections.
3. Elimination of jogs and sharp angles.
4. Extensions in unplatted territory.

The latter item generally involves little beyond control of land subdivision and is,

therefore, properly considered as new street development. Plate No. 6 is the major street plan, showing the characteristics of existing streets and certain proposed improvements.

1. **Widenings**—It will be observed by comparison of Plates Nos. 5 and 6 that a large proportion of the total length of major streets is of streets sixty-six feet wide or under. Obviously, since the sixty-six-foot street admits

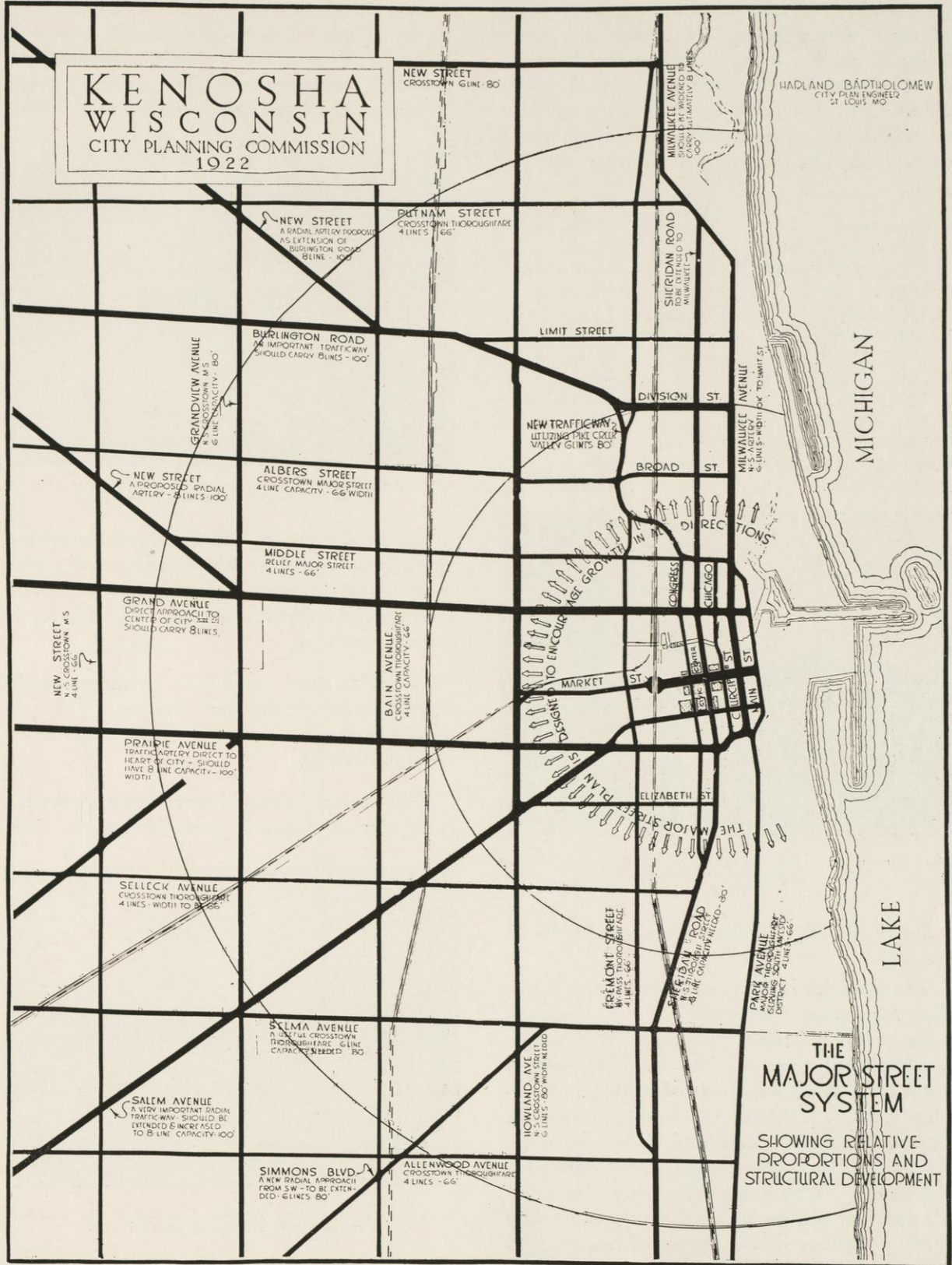
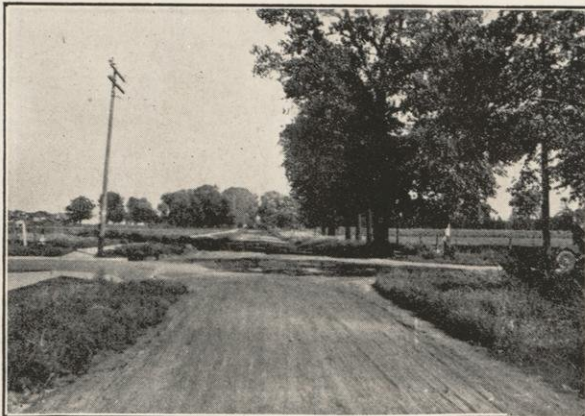


Plate 7.
— 29 —

of a roadway of only four-line capacity, many of these thoroughfares are inadequate, especially as car-line routes. Before the demands of a large city become pressing, therefore, additional width should be assured them according to a definite scheme. The principal streets which should be increased in carrying capacity are:

Name of Street	Present Capacity	Proposed Capacity
GRANDVIEW AVENUE	4 lines	6 lines
HOWLAND AVENUE	4 lines	6 and 8 lines
SHERIDAN ROAD	4 lines	6 lines
CHURCH STREET	3 and 4 lines	6 lines
SELMA AVENUE	4 lines	6 lines
PRAIRIE AVENUE	4 lines	8 lines
SOUTH STREET	3 lines	6 lines
MARKET STREET	4 and 8 lines	6 and 8 lines
GRAND AVENUE	4 lines	8 lines
DIVISION STREET	4 lines	8 lines
BURLINGTON ROAD	4 lines	8 lines
SALEM AVENUE	4 lines	8 lines

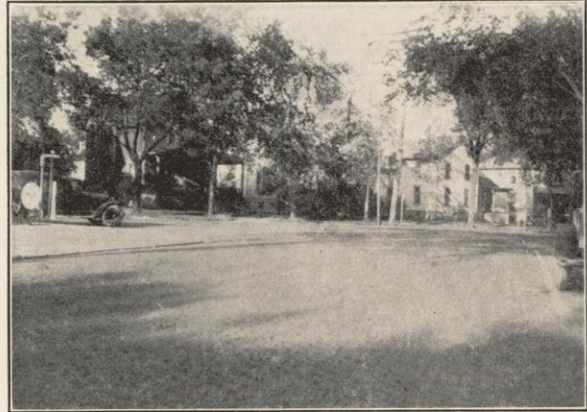


Selma Avenue, east from Howland. This Street should be widened immediately while conditions are favorable.

See Plate No. 7; also Table on Pages 27 and 28.

The widenings proposed in the major street plan have been determined by a thorough study of the movement of traffic in Kenosha, and the tendencies of growth. The present width of most of the streets of strategic importance, such as Sheridan and Burlington Roads, Prairie, Salem, Howland, and Grand Avenues, is wholly inadequate for the traffic flow of a metropolis. With vehicles increasing in number and size and the city constantly expanding in all directions, it is a matter of economy to formulate plans for the eventual, if not immediate, widening of these basic thoroughfares.

2. **Openings and Connections** — Many minor changes are needed in the streets of Kenosha if a suitable major thoroughfare system is to be secured. The more important of these corrections may be listed as follows:

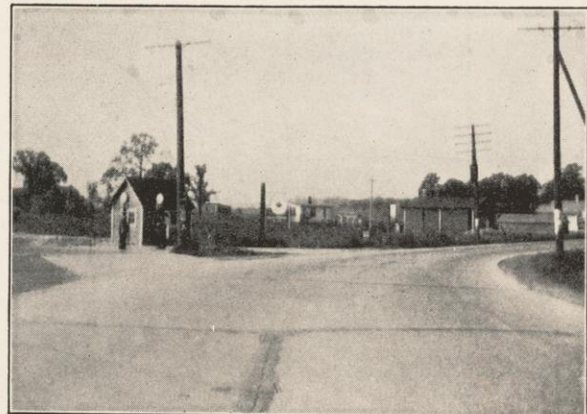


Salem Avenue at Elizabeth Street showing the lines for the eventual extension of this thoroughfare.

Salem Avenue should be carried eastward from its intersection with Elizabeth and joined to Wisconsin Street. This will give the southwest district a direct route into the Main Street business section.

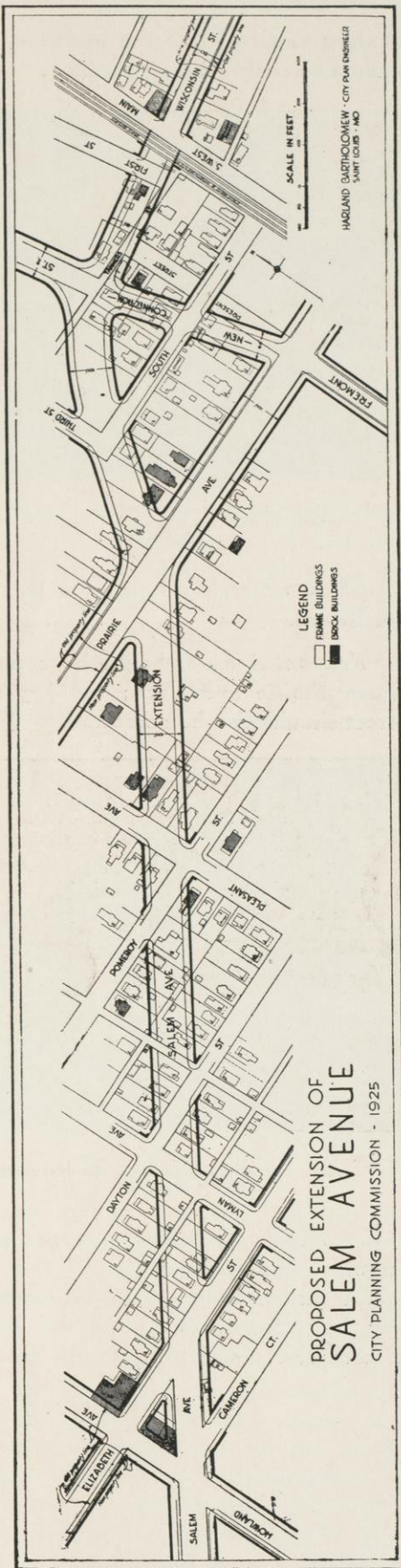
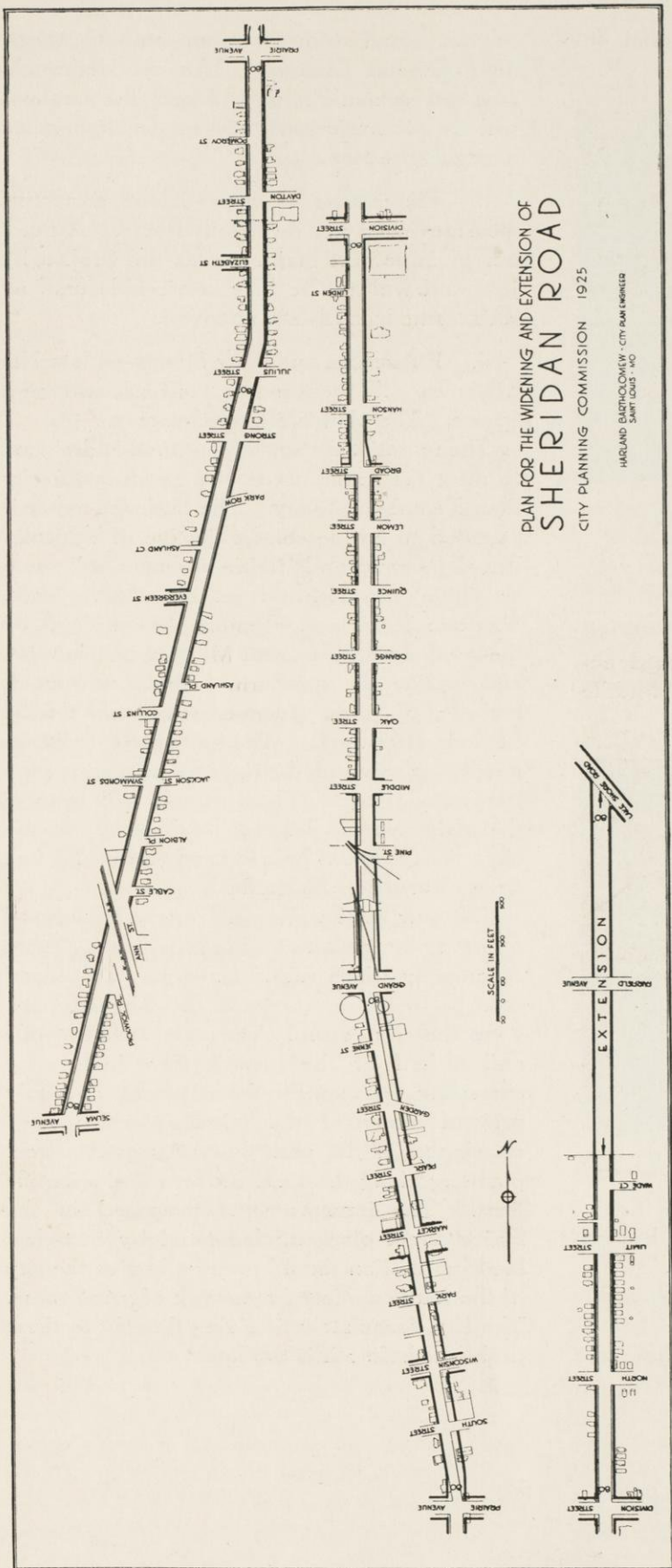
Sheridan Road should be extended northward to meet Milwaukee Avenue. This will open a continuous route for tourist travel direct through the city.

Church Street should be extended northward from Market Street to meet Milwaukee Ave-

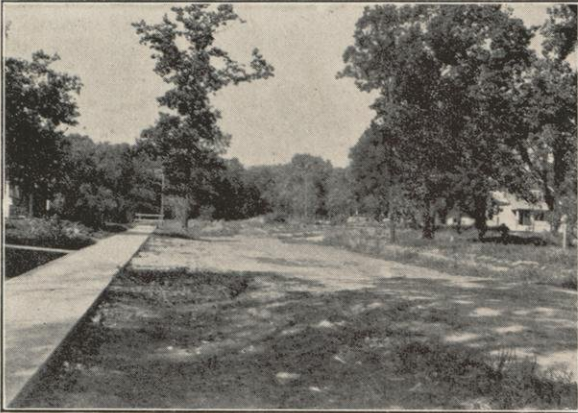


Western end of Salem Avenue, illustrating the proposed extension which is being planned now.

nue. This project may not appear feasible now because of industrial barriers, but the



healthy expansion of the business district demands its eventual consideration.



North end of present Sheridan Road. The extension of this street should be undertaken at the earliest opportunity.

Chicago Street should also be extended northward.

Fremont Avenue should be connected between *Prairie* and *Park*; the jog at *Middle Street* should also be corrected.



Prairie Avenue east of Sheridan showing the cut off which should be made to facilitate the entry of traffic into the business district.

Congress Street should be carried south from *Strong* to join *Sheridan Road*.

It is further proposed that a street or parkway be planned to follow the *Pike Creek* watercourse, connecting *Racine* and the *Bur-*

lington Road with *Fremont* and *Congress*, *Sheridan* and *Chicago*. This new thoroughfare will reclaim a large and ugly low area and will be of considerable aid in developing the northwest section.

3. **Elimination of Jogs**—These corrective measures need not be detailed here. A number of important major streets are broken by jogs and will not be fully serviceable until all such traffic hazards are removed.

4. **Extensions and New Streets**—Plate No. 6 shows all proposed extensions and new streets. The plan is self-explanatory.

The major street system outlined is designed to meet the traffic needs of a much larger city than *Kenosha* is today. The business center is assumed to be the chief objective of vehicular travel. *Grand* and *Prairie Avenues* will serve as direct approaches from the west. *Park*, *Sheridan Road* and *Fremont Avenue* will be the southern arteries, and *Milwaukee*, *Sheridan* and *Racine* the northern. The southwest is served by *Salem Avenue*, which should be carried westward. The northwest district needs two new radial streets to supplement the *Burlington Road*. These streets will become the main avenues leading to the heart of the city. They should be wide and direct and free from obstructions to traffic.

The new streets proposed are to be secured primarily by regulation of land platting. A set of rules by which subdivisions may be judged is to be found in Appendix B. The state law gives the city control over plats within a mile and a half of the present city limits. By exercising this control the city may not only prevent many of the mistakes which have developed in the past, but may guide street planning along the most modern and scientific lines. The improvements proposed in the major street plan supplemented by first-class land subdivision should eventually give the city of the future a street framework of great value. The city, fortunately, is giving thought to these problems before it is too late.

TRANSIT

The development of the street railway industry has been no less remarkable than the growth of our cities. It is less than forty years since the first electric line was operated in the United States. This was in Richmond, Virginia, in 1888, just seven years after the first electric line in the world was operated in Berlin, Germany, in 1881. The first street railway established in the world was a horse-car line operated on Fourth Avenue, New York, in 1832, and called the New York & Harlem Line.

From the early days of the street railway until within recent years the expansion of service has been practically coincident with urban growth. In fact, the car lines have made possible the tremendous growth of our cities. As a result they have become an essential part of community life. The daily flow of people between homes and places of work and amusement is dependent upon transit facilities. This dependence is still pronounced, and notwithstanding the remarkable use made of the automobile and the fact that the electric lines have of late failed to keep pace with city growth, it is generally conceded that for mass transportation the electric lines have proved their superiority over auto buses.

Competitive Service—Motor Buses

The experience of such cities as Akron, Toledo, Bridgeport and Des Moines in trying to supplant electric lines entirely with motor buses has practically dispelled the apprehension that once existed as to the future of the electric railway. It has been proved conclusively in these cities that for comfortable, economical and dependable service the electric lines are most practicable. This, however, does not necessarily imply that there is no place in a transit system for bus lines. On the contrary they can render a very useful service. Electric railway operators recognize that bus operation has certain advantages, especially when used to supplement the electric lines. In sparsely populated districts where travel is

light, buses are more economical because of the low initial cost of installation as compared to that of the electric railway, which requires expensive track and overhead construction. The successful operation of motor buses, however, requires that they be incorporated with a unified transit system, that they exchange transfers, and have schedules synchronized with those of the street cars.

Trackless Trolley

Another form of service, though still in an embryonic stage of development, is the trackless trolley. From the limited information at hand, this service seems to have certain advantages over the motor bus. Though the initial cost of installation of the trackless trolley is greater because of overhead wire construction the difference is more than offset by the saving in operation.

It is reasonable to assume that because of economy in operation, the trackless trolley may supplant the motor bus in many instances, but for mass transportation there is little indication that the trackless trolley could ever take the place of street cars. As feeders to car lines as pioneer radical and crosstown lines, or for furnishing complete service in small communities, the trackless trolley should, from present indications, prove practicable and economical.

Present Routings—Population and Areas Served

The present transit service in Kenosha is provided by one-man cars and buses under a unified system owned and operated by the Wisconsin Gas and Electric Company. There are five local car lines and three local bus lines. The fare is seven cents cash, four tickets for twenty-five cents, or an unlimited number of rides on weekly passes for one dollar—all with free universal transfers. Of the city's total area, 6.15 square miles, approximately 75 per cent is provided with transit service, i. e., street car or bus, and approximately 95 per

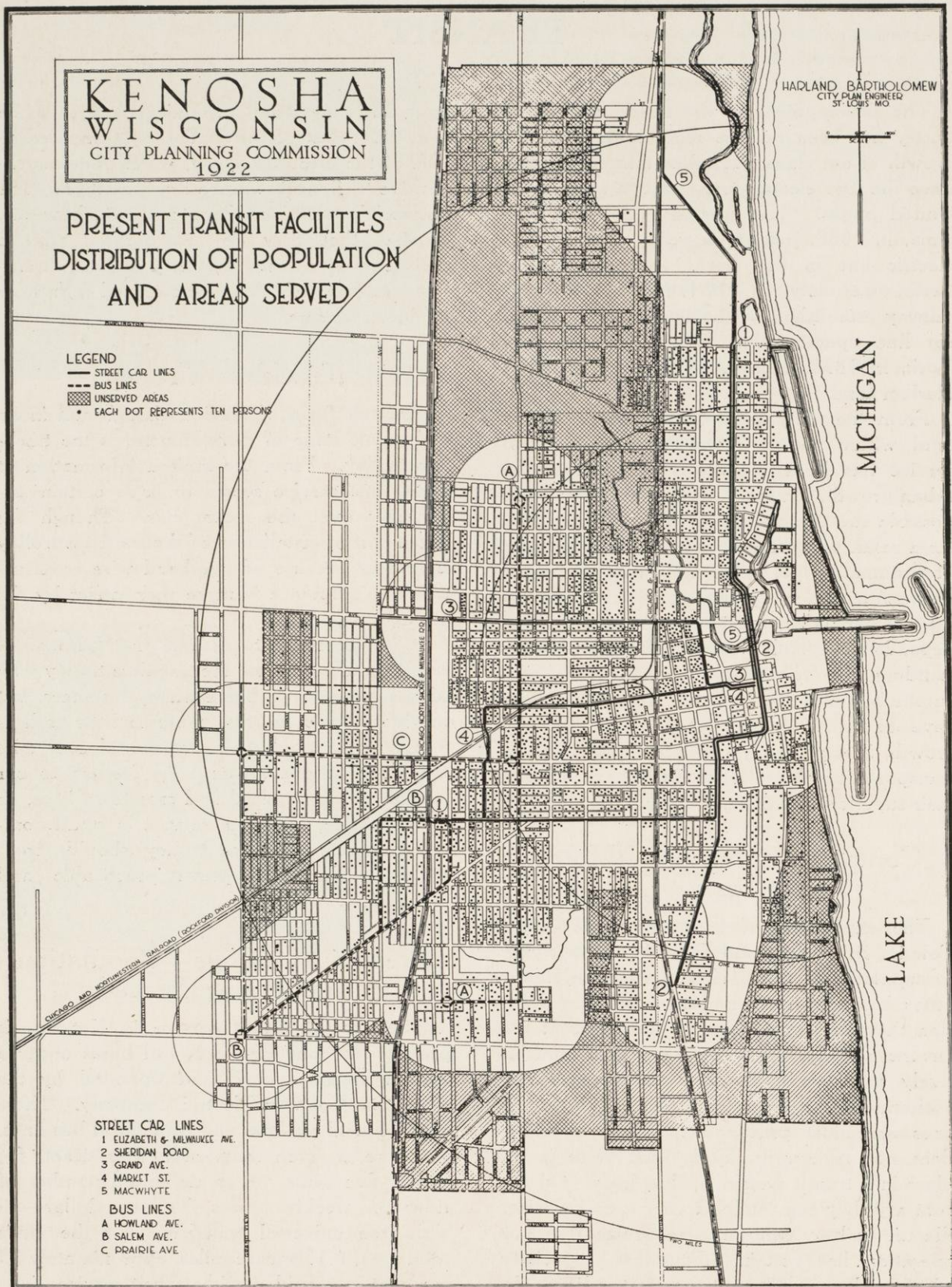


Plate 9.

cent of the population lives within the areas served. All areas within one-quarter mile of a car line, which is equivalent to five miles walking time, are shown as having reasonable service.

A reference to Plate No. 9 showing car lines, population and areas served, indicates that the city's development has been extremely one-sided. While the area north of Grand Avenue is about equal to that on the south, the trend of growth has been decidedly south and southwest. With the exception of the lines on Milwaukee Avenue and a short extension of the Howland Avenue bus line, all the city's transit facilities are south of Grand Avenue, which is approximately the median of the city's area. This serves to exemplify the need of providing better street and transit accommodations to encourage development to the northwest.

Though somewhat unbalanced, the existing lines have been arranged in a fairly systematic manner and, as will be seen later, practically all of the present layout can, with few exceptions, be incorporated into the enlarged transit plan.

Description of Present Routings

1. Elizabeth and Milwaukee Avenue Line—

From Erie and Elizabeth (North Shore Station) east on Elizabeth to Sheridan Road, to South Street, to Main Street, to Milwaukee Avenue, thence north to Limit Street and return.

Seven cars are operated from 5:55 A. M. until 11:30 P. M., after which four cars are operated until 1:00 A. M. From 6:00 to 7:00 A. M. five extra cars are operated, two of which start at the north end of the run and are routed over Market Street line. From 12:00 until 1:00 noon, three extra cars are operated. At 6:00 P. M., four extra cars are operated. Maximum headway, six (6) minutes during the entire day.

2. Sheridan Road Line—

From Sheridan and Ann Street, north on Sheridan Road to South Street, to Main Street, and north on Main Street to Middle Street and return.

Two cars are operated for the entire day on a twelve (12) minute headway. At noon and night one extra car is operated.

3. Grand Avenue Line—

From Main and Market Streets, west on Market to Sheridan Road, to Grand Avenue and west on Grand Avenue to Charles Street and return.

Two cars are operated for entire day with ten (10) minute headway. No extra cars.

4. Market Street Line—

From Main and Market Streets, west on Market to Newell, south on Newell to Elizabeth Street and return.

Two cars are operated with ten (10) minute headway. Morning, noon and night, one extra car is operated.

5. MacWhyte Line—

From Main and Market Streets, north on Main and Milwaukee to Adams Street and return.

One car is operated from 6:00 A. M. until 9:00 P. M. Headway thirty (30) minutes.

A. Howland Avenue Bus Line—

From Charles and Tanck Avenue, east on Tanck to Howland and north on Howland Avenue to Slosson and return.

From 6:00 A. M. to 8:00 A. M., two buses are operated with a ten (10) minute headway; from 8:00 A. M. to 12 noon, one bus with a twenty (20) minute headway; from 12:00 to 1:00 noon, two buses are in use. From 1:00 P. M. to 6:00 P. M. one bus is operated; from 6:00 P. M. to 8:00 P. M., two buses are in use, and from 8:00 P. M. to 12:00 P. M. one bus is in service.

B. Salem Avenue Bus Line—

From Salem and Grandview, east on Salem to Bain Avenue, to Elizabeth, to Charles, to Salem and west on Salem to Grandview.

Same schedule as for Howland Avenue Bus Line.

C. Prairie Avenue Bus Line—

From Howland and Prairie Avenues, west on Prairie to Grandview Avenue and return.

One bus from 6:00 A. M. to 12:00 M., on twelve (12) minute headway.

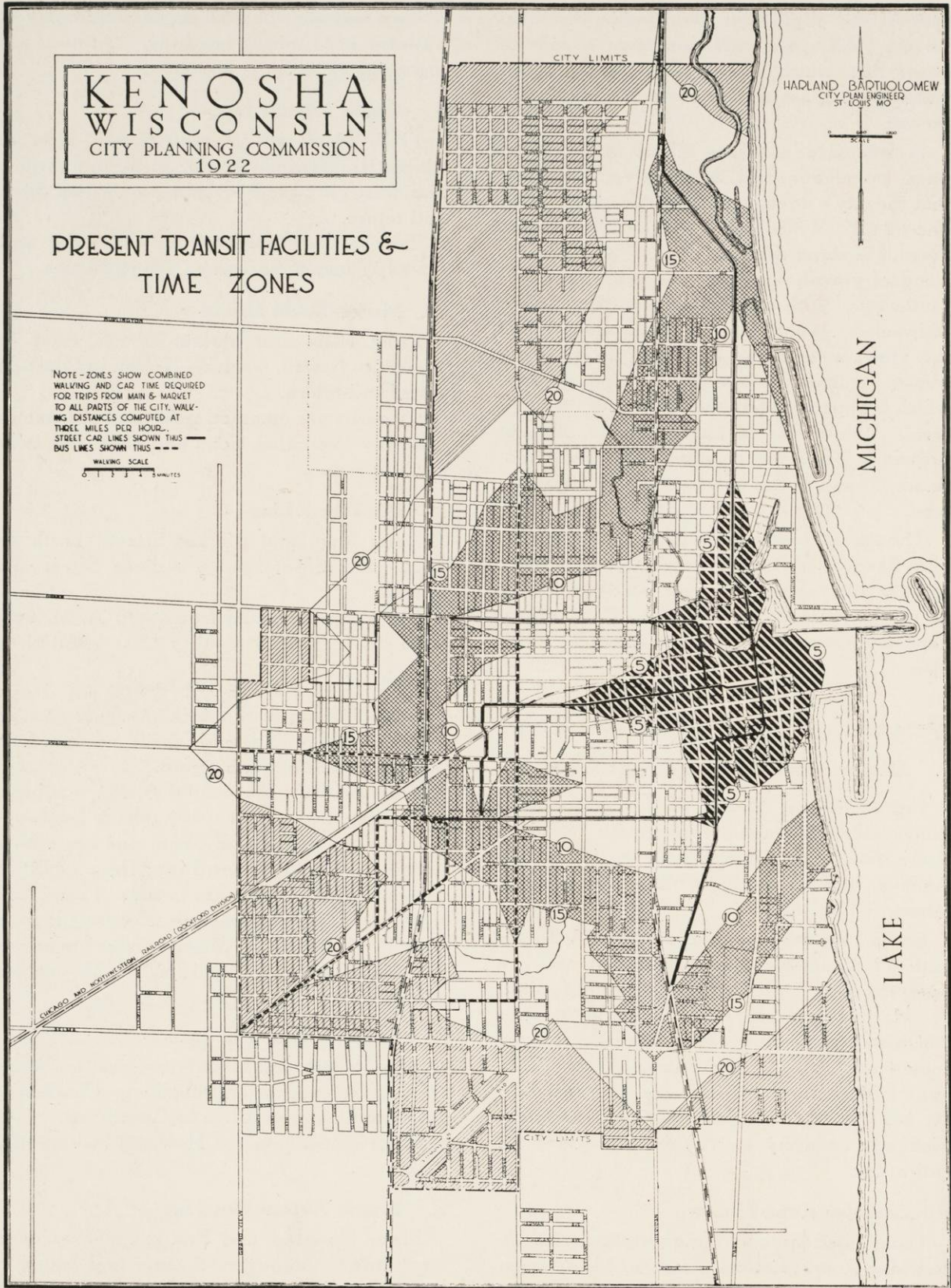


Plate 10.

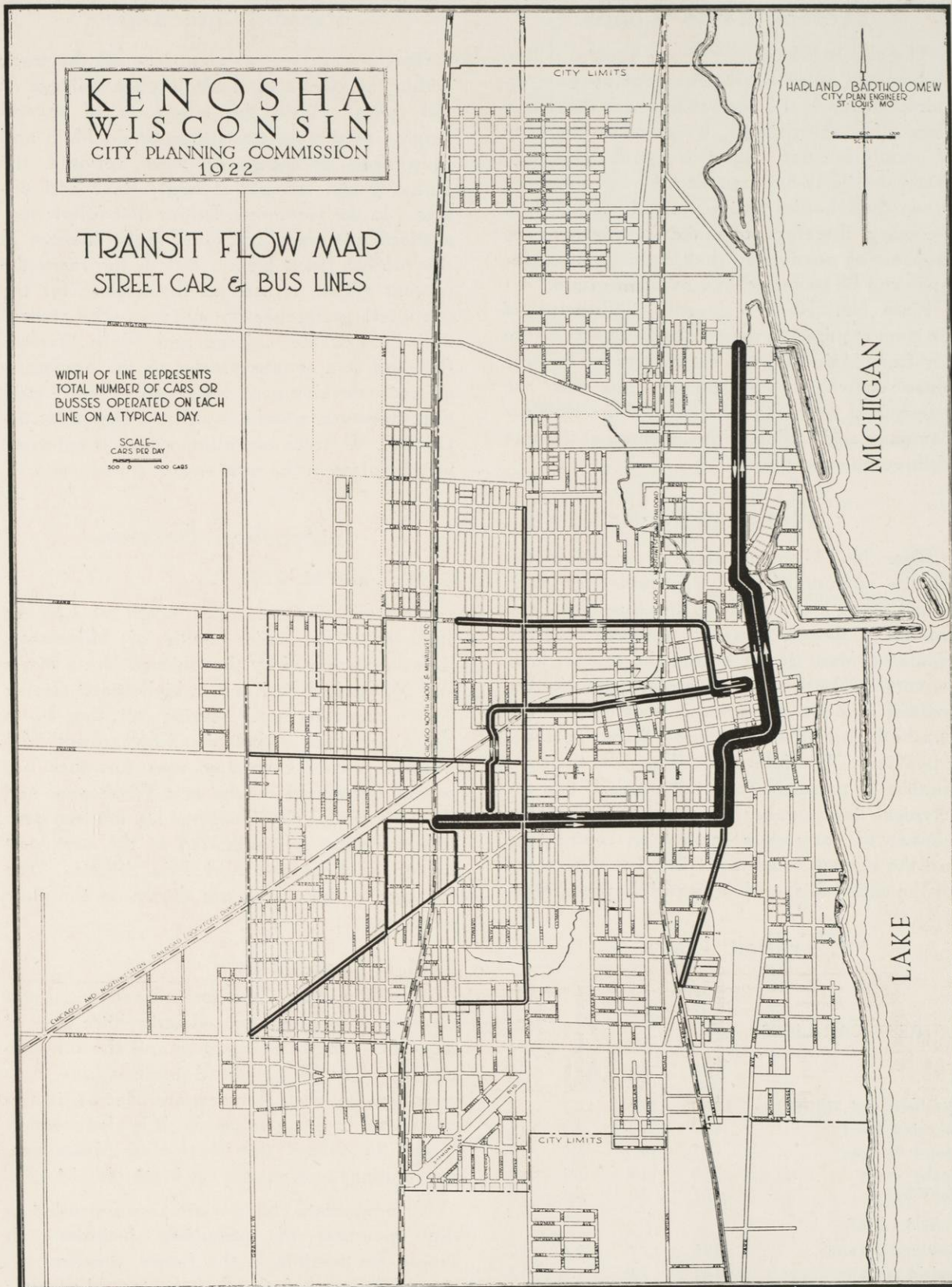


Plate 11.

Present Time Zones

The size to which a city may expand is limited not so much by distance but by time required to reach the central business district or place of employment. Usually the majority of people are not willing to spend more than thirty or thirty-five minutes in traveling between their homes and places of work. It is necessary, therefore, to make all transit routes as direct as possible so that the maximum distance can be traversed in a minimum time.

Plate No. 10 is a graphic illustration of the time required to reach different parts of the city from Main and Market Streets. The time zones shown by five-minute intervals are determined from the schedules of the Railway Company and walking time assumed at the rate of three miles per hour.

Transit Flow

Plate No 11 was prepared to show the relative amount of service provided on each transit route, i. e., street car and bus lines. The greatest concentration of service logically occurs on Main Street, where the several lines converge. As shown on the plate opposite the greatest amount of service is provided on the Elizabeth and Milwaukee line, where the travel is heaviest. The following table gives the total number of passengers carried on each line for a typical day, number of round trips, average number of passengers carried on round trip, and the normal headway (time between cars) for the entire day, excluding rush hour trippers:

Transit Data

STREET CAR LINES	Number Passengers Carried for Typical Day.	Number of Round Trips.	Average Number of Passengers Carried Round Trip.	Normal Headway for Entire Day in Minutes.
Elizabeth and Milwaukee...	3380	180	18.7	6
Sheridan Road	650	90	7.2	12
Grand Avenue	745	107	6.9	10
Market Street	780	110	7.1	10
MacWhyte	127	20	6.3	30
BUS LINES				
Howland Avenue.....	395	72	5.4	10
Prairie Avenue.....	127	72	1.7	12
Salem Avenue	264	72	3.6	10

Revised as of June 18, 1924.

Present Trackage

The present system comprises all the track within the city, a total single track mileage of 7.8 miles. With the exception of several lengths of double track located on Main and Milwaukee, as shown on plate opposite, the entire system consists of single track and sidings. In the recommendations that follow suggestions are made for some slight changes in the present track layout, but in the main the present system is used as the nucleus for the proposed comprehensive system. The present main line of the Chicago and North Western Railroad is a serious barrier to the expansion of track development westward. This condition, however, should soon be relieved by the C. & N. W. track elevation, which is expected to take place in the next two or three years.

Interurban Service

C. N. S. and M. R. R.

Situated fifty-one miles north of Chicago and thirty-four miles south of Milwaukee, Kenosha is served by the Chicago North Shore and Milwaukee Railroad, a high speed electric line, connecting and serving all the North Shore communities between Chicago and Milwaukee. This Company also furnishes bus service between Kenosha and Waukegan, and Kenosha and Lake Geneva. A modern passenger station is maintained at the southwest corner of Elizabeth and Erie Streets. The routings of these lines are shown on the plate opposite.

T. M. E. R. and L. Co.

The Milwaukee Electric Railroad and Light Company operates two electric lines out of Kenosha—one to Milwaukee and the other to Racine. The Wisconsin Motor Bus Line, now operating between Kenosha and Racine, is also controlled by this company. It is also contemplated to extend this service to Milwaukee. See routings in Kenosha on Plate No. 13.

No immediate changes are recommended in the operation of interurban facilities. It should be possible in the future, however, to simplify some of the bus routes when new streets have been opened and improved.

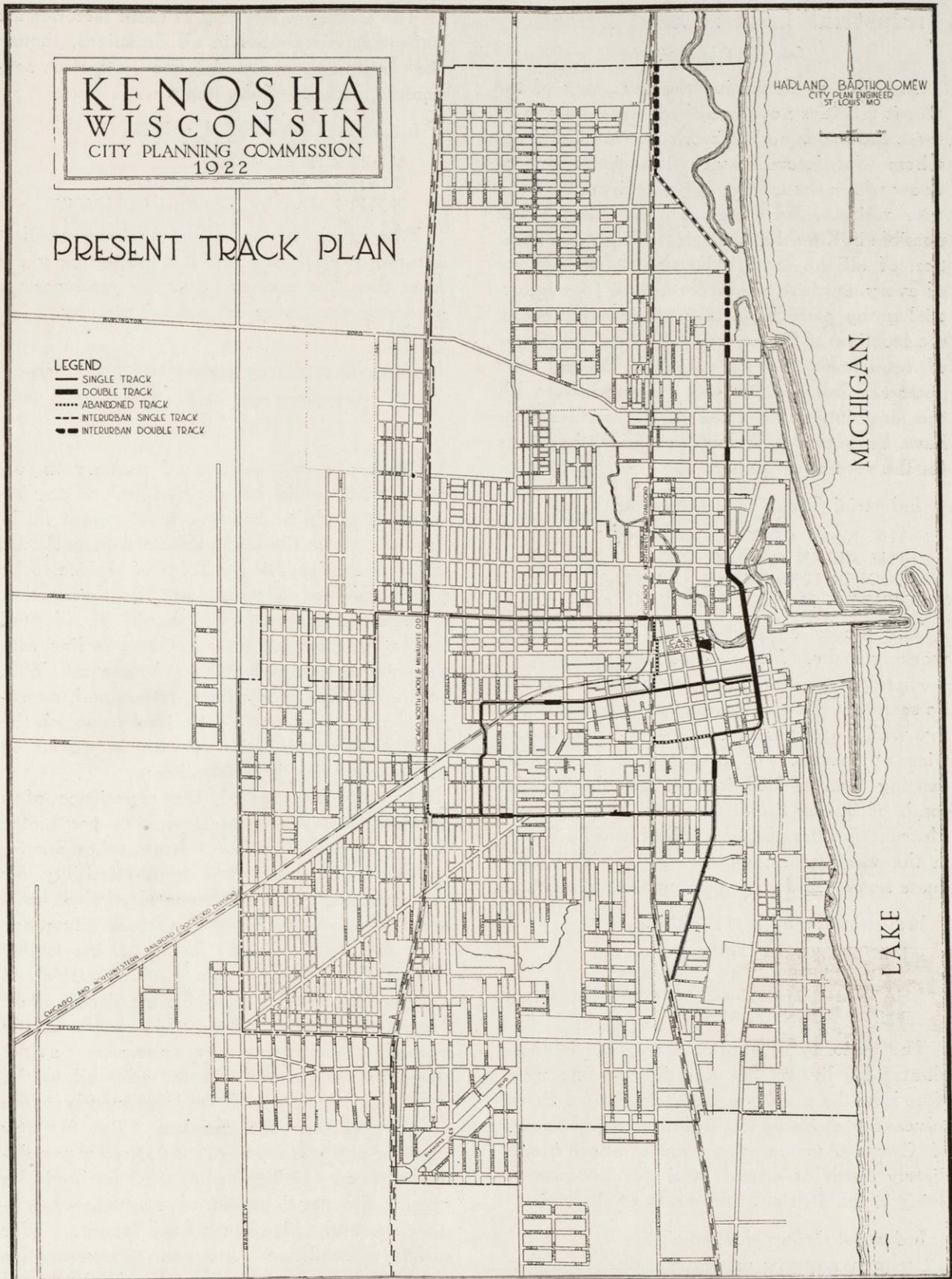


Plate 12.

Industrial Groups and Location of Employes

In order to determine the adequacy of the transit facilities now furnished the employes of these industries and to work out a satisfactory scheme for future service, it is important to know where the employes of the various industries reside. Such studies have been made possible in Kenosha through the kind co-operation of all the local industries. The address of every employe was secured and four industrial group plans have been prepared showing the location of the various factories and places of residence of the employes. Though the necessary information was obtained from all the local industries, some of the smaller ones have been purposely omitted from the plans for the sake of simplicity.

Industrial Group No. 1 includes:

THE NASH MOTORS COMPANY
THE ALLEN A. COMPANY
COOPER UNDERWEAR COMPANY
VINCENT McCALL COMPANY.

The places of residence of the employes working in these factories are indicated by dots—each dot representing one person. It will be seen that the great majority of the employes live within a radius of one mile. These industries at present are pretty well served by existing transit facilities though the district south of Strong Street, between Fremont and Pleasant and the district north of Middle Street, in the vicinity of Pleasant, do not have adequate service under the present arrangement.

Industrial Group No. 2 includes:

THE SIMMONS COMPANY
N. R. ALLEN'S SONS COMPANY
HANNAH'S MANUFACTURING COMPANY
BAIN WAGON WORKS.

The majority of employes working in these plants also live within a radius of one mile. Note how the employes have distributed themselves in a more or less uniform manner south of Grand Avenue, the concentration immediately north of Grand, and the few persons living in the district to the north of the city.

Industrial Group No. 3 includes:

THE AMERICAN BRASS COMPANY
C. M. HALL LAMP COMPANY
FROST MANUFACTURING COMPANY.

The employes working in these factories are uniformly distributed in all directions, though the majority apparently live within a convenient distance of the plant.

Industrial Group No. 4 includes:

MacWHYTE COMPANY
WINTHER MOTORS COMPANY
HOLM'S MANUFACTURING COMPANY

This group of industries has the smallest number of employes, and it is interesting to see from the plate opposite how the employes are scattered practically over the entire city.

Recommendation for the Improvement of Transit Facilities

There are two matters of primary importance that should be decided before any attempt is made to improve local transit facilities. First, the city and transit company should agree upon the ultimate form of service to be provided—bus or street car. Following this, a general re-routing plan should be adopted so that all new extensions will be in line with a systematic comprehensive arrangement. With such a definite policy once determined, a progressive program can be evolved by which the present physical plan can be improved in accordance with the final scheme.

As previously stated, the experience of a number of cities in attempting to use motor buses to supply all urban transportation service proves conclusively their impracticability for that purpose. As supplemental service, however, buses are still being used to an advantage over the electric lines. The trackless trolley (or trolley bus) is also proving useful to augment the service provided by electric lines. This latter form of carrier, which is electrically propelled, and can use the same power as the street car, is naturally better adapted to the street car system and is consequently more economical than the gas bus. But for any growing city which expects to attain a population of say 50,000 or more, the aim should be toward the development of a system of one-man cars and with a single track layout. Under ordinary conditions one-man safety cars in cities between approximately 50,000 and 100,000 are, no doubt, the most satisfactory

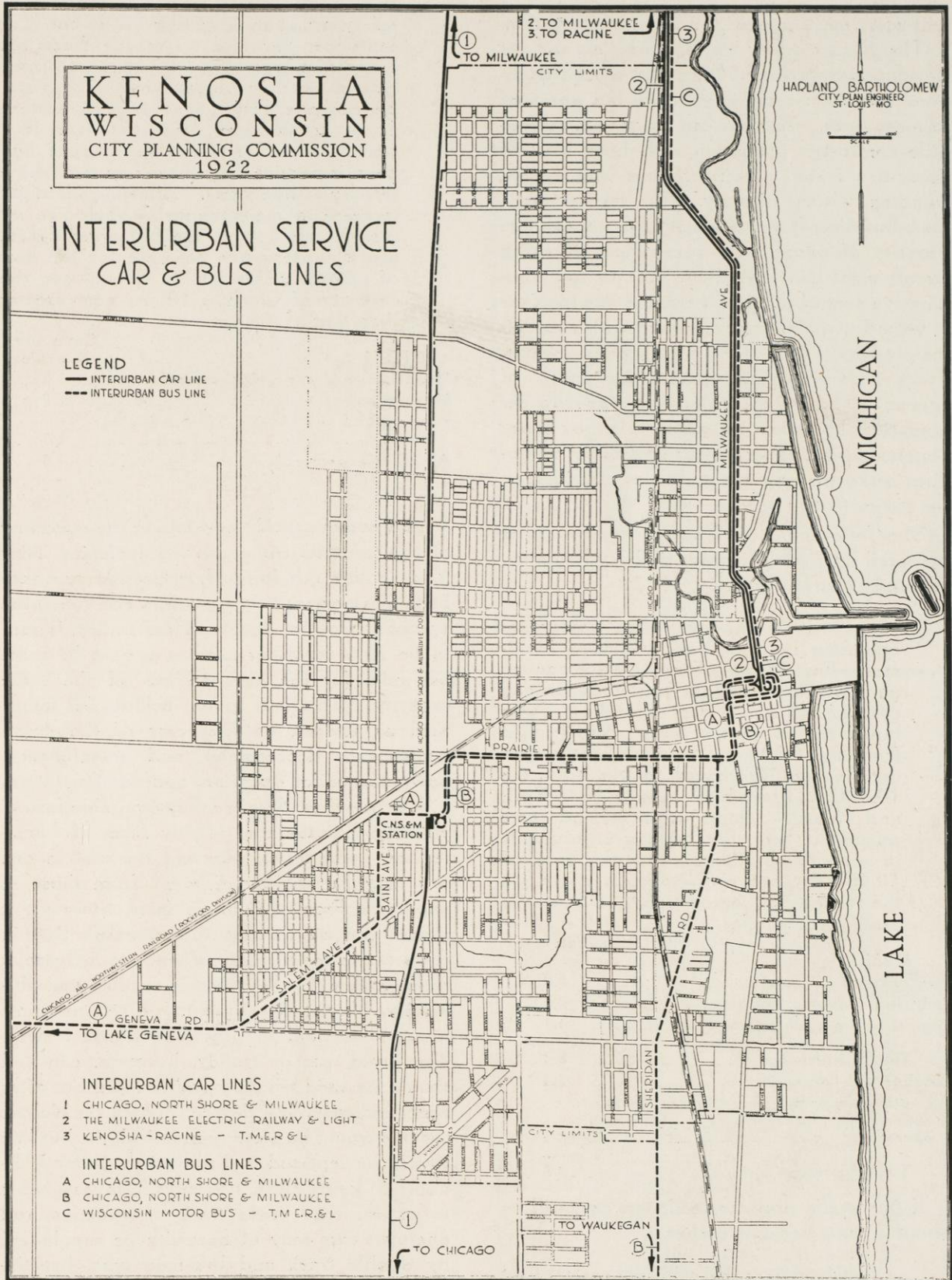


Plate 13.

and economical means of urban transportation.

The Birney safety car, the smallest car yet developed, will carry 50 per cent more passengers than the largest single deck bus operated in most cities. This car can carry with reasonable comfort a maximum rush hour load of thirty-two seated passengers and twenty-eight standing, a total of sixty. The largest single deck buses used in most cities have a maximum capacity of about forty passengers, of which twenty-eight can be seated. As to the comparative cost of these carriers, the one-man car is valued at \$6000 as compared with approximately \$6000 to \$7000 for trolley and gas bus. Track and overhead construction must, of course, be added to the cost of one-man car operation, but notwithstanding this their lower depreciation, cheaper power and other economies make the cost per mile less than that of the gas or trolley buses.

The following is an extract from a paper prepared by J. C. Thirlwall, Railway Engineer, General Electric Company, 1922:

Records from seven bus companies operating in New York, Chicago, Baltimore, Fort Worth, Akron, San Francisco and Seattle show an average operating cost of 28 cents per car-mile. These buses are of several sizes and weights, from the 6,000 lb., fourteen-seat design used in Fort Worth and Seattle, up to the 10,000 lb. double-deckers in New York and Chicago. Some use solid and some pneumatic tires, but making adjustments in costs to put them all on the basis of 10,000 lbs. and with solid tires, we get the following segregations of costs in cents per bus-mile:

ITEM	Cents per Bus-mile
Tire expense	2.0
Body and chassis	2.0
Engine, transmission and control.....	4.3
<u>Total maintenance</u>	<u>8.3</u>
Gasoline and lubricants	7.2
All other expenses—chauffeurs, garage, supervision, insurance, etc. (one-man operation)	12.3
<u>Total operating costs.....</u>	<u>27.8</u>

If pneumatic tires are used, this cost will be about 3 cents per mile higher.

Now compare that with rail costs. Last year the entire city service in Terre Haute, Ind., was handled by the Birney

safety car, at an operating cost of but 12.5 cents per car-mile. Records from ten companies, operating 500 of these Birney cars, showed an average cost of 16 cents per car-mile, and their average on thirteen Stone & Webster properties was 16.5 cents. Some of these installations had been in service only a year or two, some as long as five years. Allowing for slight increase in maintenance as their age increases, we believe the following figures are a conservative estimate for the cost of operating this 16,000 lb. rail car, the capacity of which is 50 per cent greater than that of the bus.

ITEM	Cents per Bus-mile
Maintenance of way and structure.....	1.8
Maintenance of equipment.....	1.7
Power at 1.5 per kw. hr. (alternating currents)	2.5
All other expenses.....	12.0
<u>Total</u>	<u>18.0</u>

In a recent article* concerning the operating of the trackless trolley on Staten Island, New York, where this form of service has probably been more extensively used than elsewhere, the operating cost of the trackless trolley is said to be 25.6 cents per mile as against 33 cents per mile for the gasoline bus of the same capacity. This cost given includes all items, such as interest on first cost of the entire investment, depreciation and maintenance, power, labor for operation and administration.

It is true that there are many variable factors entering into the cost of any form of transit service. Conditions affecting the cost in one city may be entirely different from those in another. From the above facts, however, it should not be difficult to appreciate that in cities where the population tends to increase at a reasonable rate the electric car line will ultimately, if not at present, prove the most practical method of providing transit service. The buses, gas or trolley, however, can and should be used where travel is light, but after traffic increases to a degree wherein the electric car line would be more economical, the bus line should be replaced and moved to a new location. In larger cities, of course, it is reasonable to expect that single track construction and one-man cars may of necessity be supplanted by double track and two-man cars, but the

* American City Magazine, February, 1924.

THE CITY PLAN OF KENOSHA

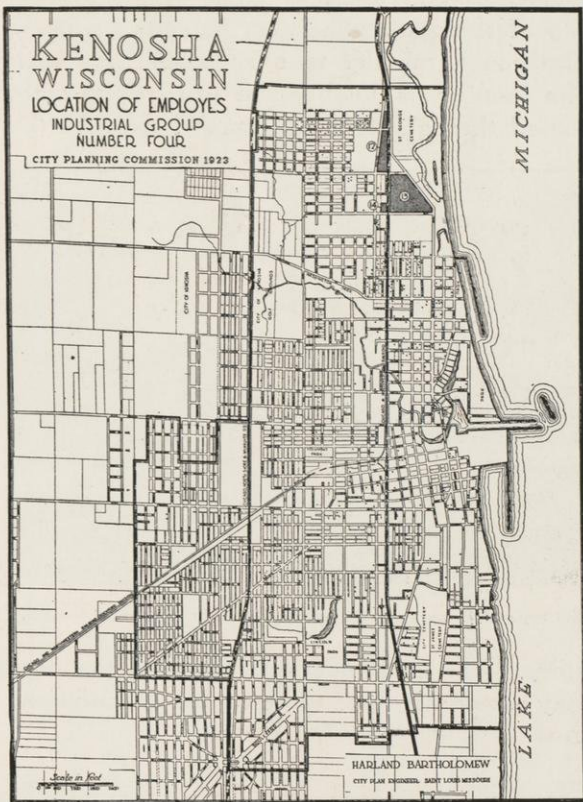
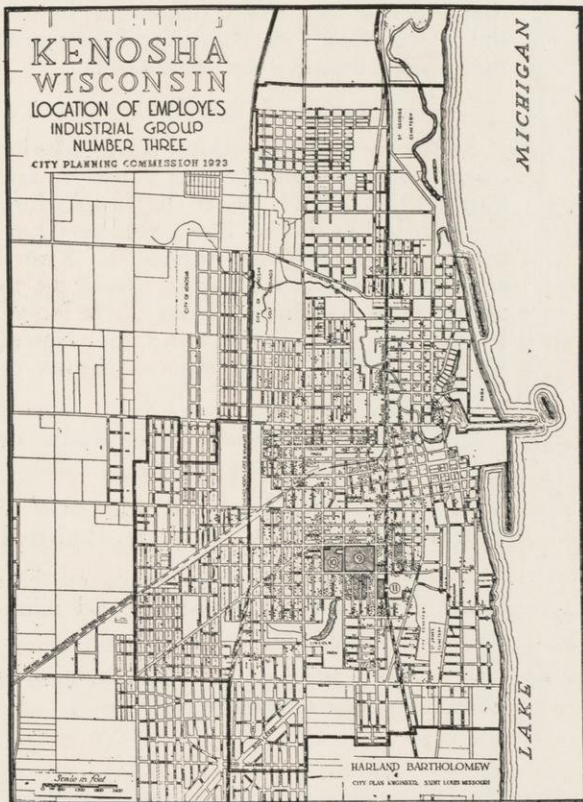
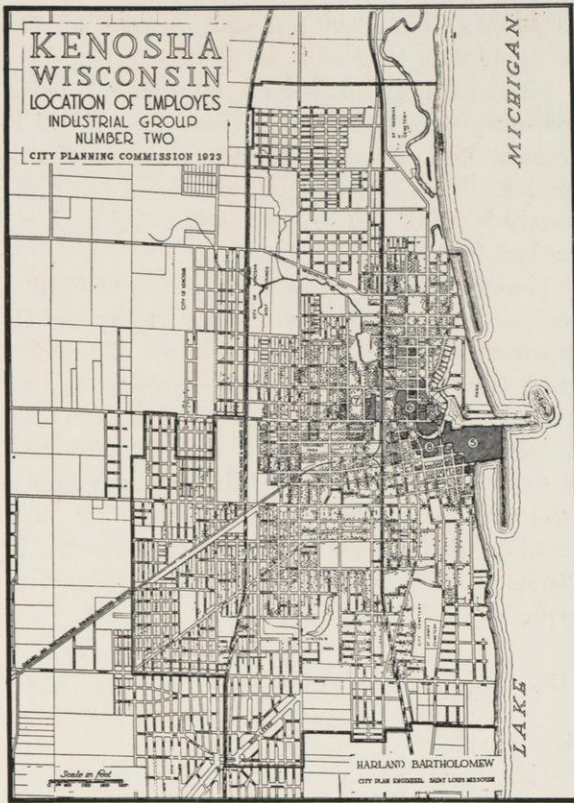
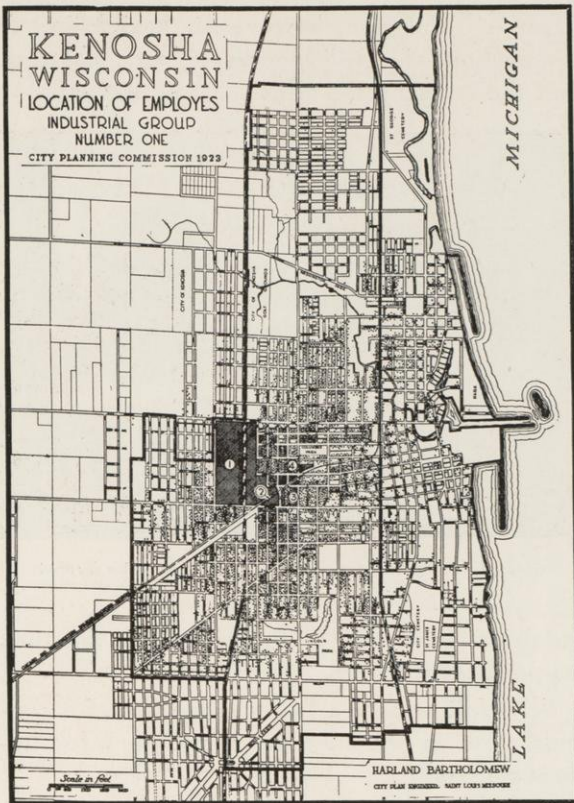


Plate 14.

travel in Kenosha will not warrant such service for some time to come.

There are at present a number of cities operating one-man cars exclusively, of which Wichita and Topeka, Kansas, are good examples. Topeka has a population of approximately 50,000, and Wichita is fast approaching the 100,000 population mark.

Though there was some opposition at first to the one-man car, it eventually met the public approval because of the increase in service which is economically possible with this type of service. It is recommended that in Kenosha all new improvements be planned to the end that the city will be served by one-man safety cars; that for extensions, cross-town lines, and possibly main lines where development is sparse, buses, gas or trolley, be used to develop traffic in the first instance.

Proposed Schematic Rerouting Plan

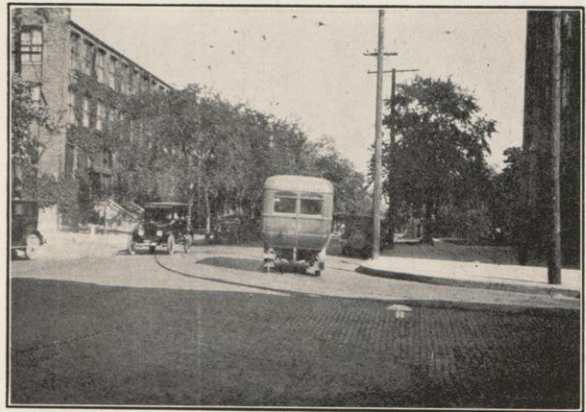
This illustrates a recommended system of transit routes based upon the needs of a community several times as large as the present city of Kenosha. The plan suggests a scheme of through routing, that is, rather than each line looping in the business district, they are routed through from one part of town to the



One type of transit service available to the people of Kenosha

other. The combination of some of the lines may necessarily have to be varied as conditions

change. The plan, however, is flexible in this connection and will permit of such changes, but the streets upon which transit service is to



Busses form an important part of the Kenosha Transit scheme

be provided should be determined at this time as permanent routes.

The following is a list of suggestions for consideration in working out a program for improvements:

1. No track extensions should be made across the main passenger line of the C. & N. W. R. R. right-of-way until the grade crossings are eliminated.

2. Market Street line.

Make new connection from Market Street to Howland Avenue south of and parallel to C. & N. W. R. R. freight line. Route Market Street line over new connection to Howland, thence to Prairie and eventually out Prairie. Track to be abandoned on Market from C. & N. W. freight line to Newell, and on Newell from Market to Elizabeth, as shown on Plate No. 15.

3. Extend Elizabeth line south on Erie to Salem and out Salem.

4. New storage track for cars at Sheridan Road and C. & N. W. Railroad.

5. Provide new spur track on Erie Street just south of Elizabeth and eliminate the present loop.

6. Better storage facilities for cars at Grand Avenue and Nash Plant.

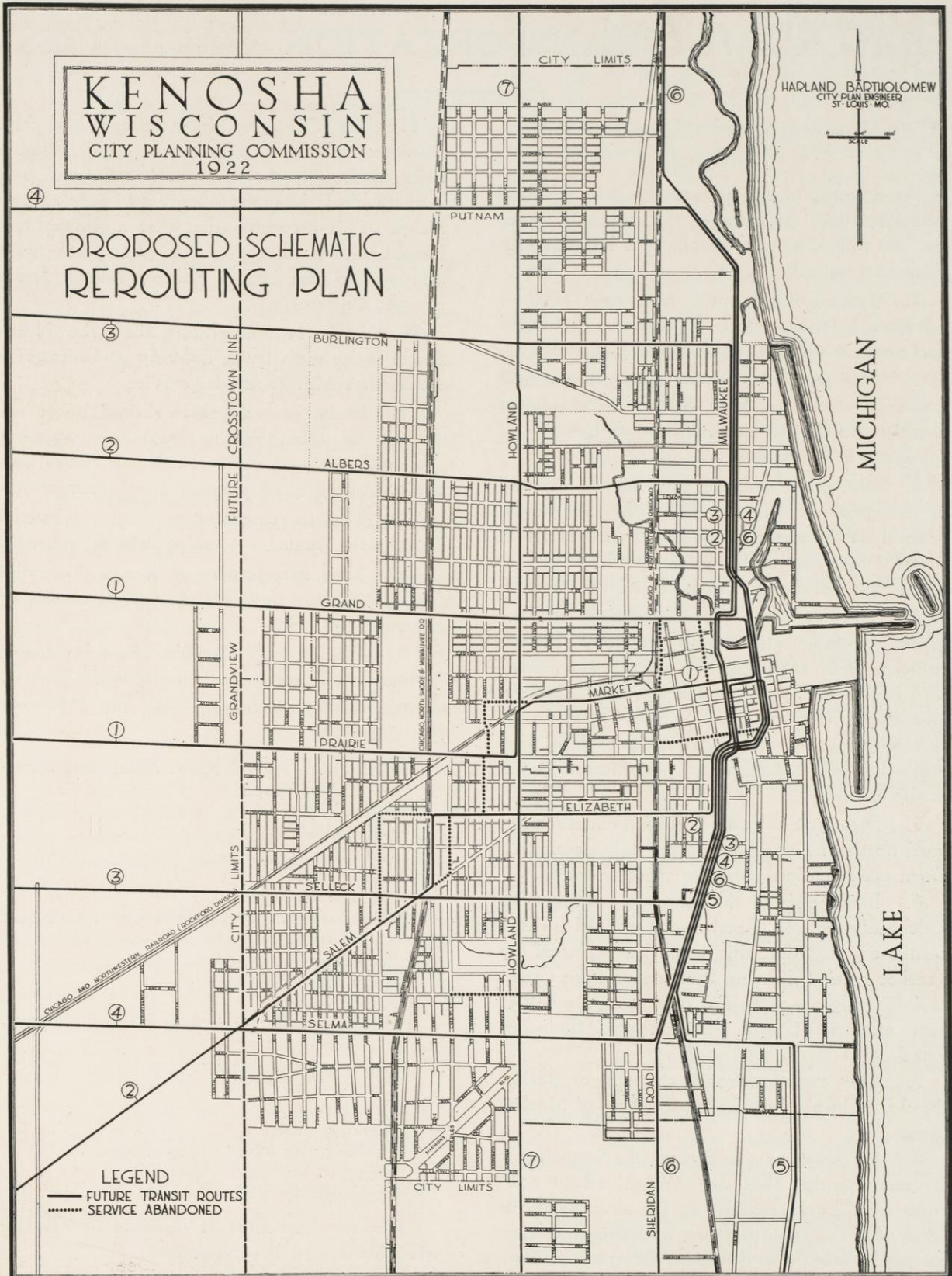


Plate 15.

RAILROAD TRANSPORTATION FACILITIES

Conclusions and Recommendations

As a result of the investigation of railroad transportation facilities of Kenosha, Wisconsin, the following conclusions and recommendations are submitted:

1. The freight and passenger service afforded by the C. & N. W. Railway is efficient and answers present requirements satisfactorily.

2. The general plan for eliminating grade crossings of the C. & N. W. Railway is satisfactory and the method of dividing the cost of the work is equitable.

3. The grade crossing program as covered in the order dated July 11, 1919, should be revised as described in detail in the report to provide for new conditions that will be brought about through the adoption of the city plan.

4. The revisions recommended in the grade crossing elimination program consist principally in extending the main track elevation northward so as to include both Fairfield and Putnam Streets and in the enlarging of certain proposed openings and providing several additional subways not now contemplated in the order.

5. Provision for an additional classification yard north of Kenosha and the enlargement of Farm classification yard are recommended.

6. It is believed that the operation of an industrial track on Pearl Street should be discontinued and that this track be replaced by another track following the line of Pike Creek and forming an extension of a spur track that now ends at Grand Avenue and Sheridan Road.

7. The new railroad passenger station should be located at the intersection of Market Street.

8. In elevating track through Kenosha, it is recommended that the railroad adopt concrete trestle construction so far as possible in order that the ground space underneath it may be made use of in connection with the new passenger station and for general utility purposes.

9. The Chicago, North Shore and Milwaukee Electric Railroad is a very valuable asset to the city, both in the handling of passengers and less than carload or package freight; it is recommended that a down town freight station be established with auto truck delivery to the North Shore's Salem Street Freight Station.

10. It is recommended that the North Shore make auto truck delivery at Chicago in connection with its regular service.

11. Street car schedules should be so arranged or other means provided whereby passengers to and from the North Shore Station can more quickly reach their destination.

12. The development of new industrial districts for Kenosha is essential to its progress.

13. That area north of Kenosha is well adapted for the development of all classes of industries.

14. The city of Kenosha should make a systematic effort to secure the location here of other industries, among which the following are suggested:

- Manufacturers of Sheet Steel and Structural Shops.
- Auto Tires.
- Disc Wheels.
- Auto Bumpers.
- Auto Tops.
- Storage Batteries.
- Manufacturers of Linseed Oil, Paints and Varnishes.
- Farming Implements.
- Boots and Shoes.
- Paper Boxes.
- Canning and Preserving Fruits and Vegetables.
- Electrical Machinery.
- Flour Mills.
- Furniture.
- Planing Mills.
- Packing and Meat Preparations.
- Stamped and Enameled Ware.
- Roofing Materials.

As many duplicates as possible of existing industries should also be secured.

15. The St. Lawrence Deep Waterway when constructed will stimulate industrial

development in and around Kenosha, as will also the proposed Lakes to the Gulf Waterway.

16. The present harbor facilities should be improved in order to secure the maximum benefit therefrom, but it is not believed that Kenosha would be justified in entering upon an elaborate program for harbor development at this time.

17. It is believed that the necessity for extensive harbor development will arise when the St. Lawrence Deep Waterway project becomes a certainty.

18. The city should at this time acquire the riparian rights to as much of the lake front as it is possible to obtain in order that future harbor plans may be carried out at a minimum cost.

19. The present harbor is not well adapted to extensive development as it cannot be easily served by the railroad.

20. For the improvement of the Kenosha harbor it is recommended that Pike Creek be filled above Main Street and that in the space so provided a railroad track be built to serve a lake terminal for freight and passengers.

21. It is recommended that a future new harbor be located somewhat beyond the north city limits where it can be primarily of service to the industrial district. The port facilities so located should be designed for receiving and shipping coal, building supplies and other bulk material, wheat, corn, rye, flax and other grains.

Space should be reserved in that area for dry docks, and coal and oil bunkering facilities. Direct rail connection must be provided, and ample yards for maintaining an adequate car supply.

Transportation

The railroad transportation problems of Kenosha are considerably simplified by the fact that it has but one steam railroad, the Chicago & Northwestern. Usually a city is at some disadvantage if there is a lack of competition of traffic, but the service now rendered by the Chicago & Northwestern Railway very satisfactorily meets present needs, although at a considerable effort by the railroad. As the city

grows industrially, its transportation requirements will become more complex and exacting, and one of the purposes of this study is to indicate methods of procedure in railroad improvement that will not only satisfy the growing demands of existing industries but will also insure the logical development of areas set aside for industries under the zoning plan and other districts not now within the city limits.

The contemplated grade crossing elimination program of the city and the railroad is very comprehensive, and when carried out will add greatly to the resources of Kenosha. Its provisions are briefly reviewed in this report, and some revisions suggested.

The principal function of the two electric interurban railroads which enter Kenosha are to carry passengers and package freight. Their scope of usefulness is, however, rapidly widening as they are driven to new fields by reason of motor bus competition. In planning for future growth, full account should be taken of their possibilities for direct service to industries, the handling of carload lots, interchange with steam railroads and greater flexibility in the delivery of package or less than carload freight.

Auto bus lines, of which there are several, constitute another form of transportation which is of growing importance to all cities along the Lake Front, and also of the interior where good roads prevail.

The study points out in a general way some of the harbor requirements necessary to make of Kenosha an efficient port, both for foreign and domestic vessels. As a result of a study just completed of several ports on the Great Lakes, there is abundant evidence that Kenosha will reap a considerable advantage from the St. Lawrence Deep Waterway project. It is expected that one of the principal results of this new commercial outlet will be a stimulation of industrial growth, and some attention is therefore given to the location of a district adapted for the great variety of industries that Kenosha should expect in the future.

Description of Railroads and Operating Methods

Chicago and Northwestern Railway. The Chicago and Northwestern Railway has two

double track main lines between Chicago and Milwaukee. The easterly line, or that which parallels the Lake Shore, is used principally for passenger service, and the westerly line for freight. The former, or main passenger line, passes through Kenosha, practically bisecting it. The freight line is about four miles to the west. A branch line, the K. & D., or the Rockford Division, extends westward from Kenosha to Freeport, Illinois, connecting up the two north and south lines, and also the C. & N. W.'s line from Chicago to Minneapolis, which it intersects at Harvard. At Ranney the Rockford Division intersects the Chicago, Milwaukee & St. Paul Railroad's main double track line between Chicago and Milwaukee. This connection, while offering some choice to Kenosha of routing to the northwest, is not greatly used, but will later prove very advantageous.

Passenger Traffic: The main line passenger traffic over the C. & N. W. Railway consists of from 16 to 20 trains each way daily, nearly all of which stop at Kenosha. Over the Rockford Division there are two passenger trains each way daily. The passenger station, located at Garden Street and the main line, is a one-story brick structure. A passage way under the two main line tracks leads to a platform for north-bound trains. Excepting the two trains daily over the Rockford Division, no passenger trains are made up at Kenosha, and hence no elaborate system of station tracks is needed or provided, the two main line tracks being sufficient for the present.

Freight Traffic: Practically all freight that enters or leaves Kenosha by way of the Chicago and Northwestern is handled in a sort of shuttle movement over the Rockford Division between Kenosha and Bain, where the main freight line crosses. Incoming freight cars are brought into Farm Yard and there classified for delivery to the various industries and the freight house and team yard. Outgoing cars are made up into cuts or "drags," both at Farm Yard and in the city yard, the latter being along the main line in the vicinity of Garden Street. Cars from the Simmons Company are ordinarily in sufficient number that they are handled directly to and from Farm Yard along the Pearl Street track. The city yard above

referred to is used primarily for assembling cars to and from local industries, although occasionally a train is made up here for a run over the passenger main line.

C. & N. W. Freight Station: The freight house is located at Garden and Victoria Streets. It is a one-story structure, 50 feet wide and about 400 feet long. On the track side is a platform 8 feet wide. The team frontage is along Victoria Street, furnishing easy access. There are two house tracks having a total capacity of about 22 cars.

The team tracks lie on both sides of Grand Avenue and east of the freight house. Their total capacity is about 75 cars, which appears to be ample for present requirements. Team track driveways are of dirt only. Pairs of tracks are about 30 feet apart.

Suggested Revisions in Operating Methods

The very comprehensive grade crossing elimination program mapped out by the Chicago & Northwestern Railway, in accordance with the Railway Commission's revised order for track elevation, dated July 11, 1919, carries with it other extensive changes, such as the four-tracking of the main line through Kenosha and relocation of the Pearl Street industrial track. At the same time that this work is being done it may be expected that Farm Yard will be reconstructed, or considerably changed. The opportunity should also be taken at this time to locate the passenger station more advantageously and to provide a building in better keeping with the size and importance of the city.

Grade Crossing Elimination.

The proposed method of eliminating the grade crossings of the main line of the Chicago & Northwestern Railway through Kenosha is by track elevation with little or no street depression. The present plans call for a track raise beginning at Fairfield Avenue on the north and extending to a point south of Selma Avenue. In general, for ordinary street widths of 66 feet, the plans provide for a line of supports in the center of the street and upon each curb line, thus dividing the opening into two roadways 23 feet wide and two sidewalks 10

feet wide. An under-clearance of 13 feet above crown of street is contemplated and the floor thickness of the subway floor is assumed at about 4 feet below top of rail. Where subways will be used by street railways a minimum under-clearance of 14.5 feet is recommended.

On the Rockford Division the new railroad grade meets the present street grade at Ridge Street.

A detailed description of the crossings as now proposed under the revised order of July 11, 1919, and recommendations with relation to the City Plan are as follows. Where the proposed plans meet the requirements of the city plan no recommendation is made:

Fairfield Avenue and Putnam Street.

The new railroad grade as proposed begins rising from Fairfield Avenue, at the rate of 0.5 per cent, Fairfield being left at grade. There are now four tracks at this point.

RECOMMENDATIONS: It is desirable to extend track elevation so as to include both Fairfield Avenue and Putnam Street. The latter crosses about 1200 feet north of Fairfield Avenue and is to be a four-line thoroughfare 66 feet wide.

Limit Street.

An underpass 8' x 8' for pedestrians only is provided. There are four tracks at this point which are about 4 feet higher than the adjacent property.

RECOMMENDATIONS: The underpass will be sufficient for the present as the territory is undeveloped and the street is not opened. However, the street plan requires a four-line thoroughfare eventually. Two 23-foot openings with two sidewalks 10 feet wide will then be necessary.

North Street.

The street is shown to be 66 feet wide. The railroad plan provides two openings 23 feet wide and two sidewalks 10 feet wide. The street is not yet through. The surrounding territory is residential in character. The railroad tracks, four in number, are about 3½ feet higher than the street grade.

Division Street.

This street is 66 feet wide and two openings 23 feet wide and sidewalks 17 feet wide are planned. The resulting street grade will be level.

Bronson Street.

This street is shown 66 feet wide eastward and 40.5 feet wide on the west side of the railroad. The two roadway open-

ings provided are 23 feet and sidewalks 10 feet wide.

Hanson Street.

Not through and to be vacated.

Broad Street.

There are four tracks here and the street is shown 66 feet wide east side and 38 feet west side. Two openings are provided 23 feet wide, and sidewalks 10 feet wide. Broad Street ends a short distance west of the tracks.

Lemon Street.

Not through and to be vacated.

Quince Street.

Not through and to be vacated.

Orange Street.

Not through and to be vacated.

Middle Street.

There are five tracks here and a street width of 66 feet is provided with standard roadway and sidewalk openings for this width.

Grand Avenue.

An opening 66 feet wide is provided and two sidewalks each 17 feet wide. There is one street car track on this street.

Garden Street.

This street is 49½ feet wide east of the tracks and 66 feet wide west of the tracks. On the east side it jogs to the south and then continues eastward. A subway at this street would have to be about 270 feet long and support some 10 or 12 tracks. It is only 600 feet from Grand Avenue and about 670 feet from Market, at both of which streets subways are provided. It is scarcely practicable to maintain Garden Street open and also retain the freight house and team tracks of the C. & N. W. Ry. in their present location.

RECOMMENDATIONS: The railroad plan shows an underpass at this point for pedestrians only, for the purpose of enabling them to reach the passenger station. Although it is later recommended that the passenger station be relocated at Market Street, it is nevertheless desirable to retain this underpass for pedestrians about where now provided, in line with Garden Street.

Pearl Street.

This street is shown 49½ feet wide and the plan provides for closing and vacating it. This is not objectionable as it traverses strictly railroad property and either a subway or underpass for pedestrians would not be desirable at this point. There is little or no traffic now over Pearl Street west of N. W. Main Street.

Market Street.

Market Street is shown 49½ feet wide on both sides. One 30-foot opening is provided with two sidewalks 9.75 feet wide. A depression of the street amounting to about 2 feet will be necessary and will produce no inconvenient results.

RECOMMENDATIONS: It is at the head of this street that it is desired to construct the new passenger station to replace the one which is now rather old, too small and obsolete. It is a part of the city plan to widen Market Street to 130 feet east of the railway track, taking the necessary additional land from the south side, leaving the present north line as it is now. This wide street will then form a direct approach to and offer in the distance a view of the group of buildings constituting the proposed civic center. It is not necessary that the subway underneath the tracks be the full width of the street, and it is recommended that two openings 23 feet wide and with two 10-foot sidewalks, as at other similar streets, be provided.

Park Street.

At Park Street one 30-foot opening is to be provided with two sidewalks 9.75 feet wide.

Wisconsin Street.

This street at present is not open across the railroad. It is proposed to extend Wisconsin Street as an 80-foot street to Freemont Street, and to provide a subway under the railroad tracks. The subway will have two roadway openings, each 23 feet wide, and two sidewalks 17 feet wide.

South Street.

This street is to be vacated across the railroad right-of-way.

Prairie Avenue.

The present width of the street is 66 feet on each side of the tracks; two roadway openings 23 feet wide and sidewalks 17 feet wide are provided.

Pomeroy Street.

This street is 49½ feet wide. A subway with one roadway opening 30 feet wide and two sidewalks 9.75 feet wide is provided.

Dayton Street.

Not through now and no subway is provided.

Elizabeth Street.

At this street, the railroad plan originally provided for one roadway opening 30 feet wide, and two 9.75 feet wide for sidewalks. The street as shown is 49.5

feet wide. The spur track to American Brass Company will remain at grade.

RECOMMENDATIONS: The major street plan requires an opening sufficient for four lines of traffic. Two roadway openings, at least 20 feet wide in the clear, and two sidewalks, each 10 feet wide, are recommended.

Strong Street.

This street is 66 feet wide on each side of the tracks, and two 23-foot and two 10-foot openings are provided.

Selleck Avenue—Evergreen Street.

No crossing at present.

RECOMMENDATIONS: This street is not yet through, but will eventually become a major street, for which an opening to care for four lines of traffic will be required.

Collins Street.

The railroad's plan shows Collins Street to be 60 feet wide, and a subway is contemplated with two 23-foot and two 10-foot openings.

Sheridan Road.

The railroad's general track elevation plan indicates this street to be 60 feet



The Sheridan Road grade crossing south of the city. The elimination of this and other crossings is provided for in a definite agreement between the city and the railroad.

wide and two roadway openings 23 feet wide, and two sidewalk openings 10 feet wide are provided.

RECOMMENDATIONS: The major street plan requires this to be a six-line thoroughfare; however, as there will be no parking in the subway it is believed that a 46-foot roadway will be satisfactory, especially as the crossing is on a flat skew and will be rather costly to eliminate. Two sidewalk openings, each 17 feet wide, are recommended.

Selma Avenue.

The subway originally planned for this crossing has one roadway opening 19 feet wide and a sidewalk space of 4 feet. The present city limits line is the outer line of Selma Avenue.

RECOMMENDATIONS: Selma Avenue, under the major street plan, will have a traffic capacity of six lines of vehicles, and the subway when built, should provide for at least four lines of travel. Two roadway openings 23 feet wide and two sidewalks 17 feet wide are recommended.

Fremont Avenue.

On the K. & D., or Rockford Division, the elimination of Fremont Avenue crossing is taken care of by a single roadway opening 30 feet wide and two sidewalks 9.75 feet wide.

RECOMMENDATIONS: Fremont Avenue is classed as a four-line thoroughfare in the major street plan, and will therefore require two roadway openings of about 23 feet and two sidewalks 10 feet wide. The street will be depressed about four feet.

Pleasant Street.

At Pleasant Street a raise in street grades of 3 feet will be necessary in order that the new grade of the railroad tracks will not exceed about 0.75%.

In conclusion, it will be seen from the foregoing analysis of the railroad grade crossing situation that the revisions to the plan proposed by the C. & N. W. Railway and covered in the revised order of July 11, 1919, will consist in enlarging certain openings and providing several additional subways not contemplated in the plan in order that the City Plan can be developed as projected. In addition, the extension of the main track elevation northward so as to include both Fairfield and Putnam Streets is recommended. If this work is made a part of the general program its cost will be much less than if performed as a separate project later.

All crossings on the Rockford Division were examined, but it is not believed economically practicable to carry the elimination further than now contemplated under the order. Practically all of the movements over this track are in switching service, and while there doubtless is some delay at crossings there is little danger as they are well protected.

At some future date at points on the Rockford Branch crossed by major streets a separa-

tion of grades can be worked out to advantage, but not without considerable disturbance to the industries.

The grade crossing elimination program if carried out in its entirety will prove of immediate and inestimable benefit to the city. Under the terms of the order the city must pay claims for abutting damages, but these will be small indeed if the claimants can be made to realize the extent to which their property will increase in value after the work is done. The city could well afford, if it can be arranged, to purchase outright at current prices all such so-called damaged property and by reselling later at its new price realize substantially on the investment.

A redraft of the Railroad Commission's Order for Track Elevation, wherein each crossing is treated in detail, is contained in Appendix A.

The Four-Tracking of the Main Line.

It is to be hoped that eventually the present main line passing through Kenosha will be of four-track construction the entire distance between Chicago and Milwaukee. When this is done, the line can be used more largely for freight as well as passenger traffic, thus speeding up the service.

Farm Classification Yard.

The Farm Yard, which is located on the K. & D. Division in the westerly part of the city, now has a capacity of about 470 cars. It is not well planned for a classification yard, being merely a collection of side tracks. There is ample room in the vicinity for the development of a very satisfactory yard that will care for the industrial output of this section. In the event that the shore line now used mainly for passenger traffic is used also for freight, this yard will not be well located for the make-up of trains to go out on what is now the passenger division, as there will be too much traffic on streets at grade and an excess of dead movement. It is felt that a yard to the north of Kenosha will later become more useful, especially as that large area just beyond the north city limits promises to become an important industrial district. If the present passenger line is maintained exclusively for that purpose, Farm classification yard is placed about as well as it could be and its further

development in this district will not hinder the growth of the city.

Pearl Street Industrial Track.

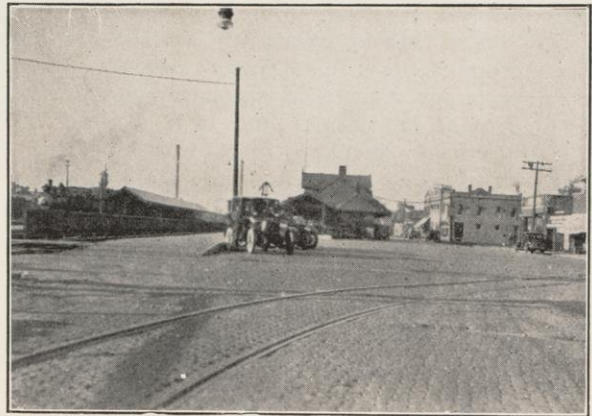
The Pearl Street industrial track is one of great importance to that group of industries lying along Pike Creek from Sheridan Road to the Lake, including principally the Simmons Company and the Bain Wagon Company. At present this track leads directly to the Farm Yard by way of the K. & D. Division. The raising of the main line tracks necessitates the cutting of the Pearl Street track at N. W. Main Street and the construction of a new connection. The railroad company's plan, Line A, Plate No. 16, provides for the new track to leave Pearl Street just east of Congress Street, and to parallel this street about 150 feet west of it, joining the spur to the N. R. Allen Company's plant at about Orange Street, the total length of new track required being about 2800 feet.

It is recommended that instead of following the above plan an extension be made of the spur track that now ends at Grand Avenue and Sheridan Road. This track indicated as line B on Plate No. 16, can be brought down along the right bank of Pike Creek, or if the latter is filled, it can occupy the middle portion. There is room for a double track with necessary leads to the Bain Wagon Company, Simmons Company, and also to provide, by running underneath the Main Street bridge, a connection to the proposed municipal pier later described.

As the output of the group of industries that will be served by this track is very large and growing rapidly, it is desirable that a yard for assembling and classifying cars be located near by. The yard previously suggested north of the city would be well adapted for this group of industries.

The Proposed New Passenger Station.

The present passenger station of the C. & N. W. Railway, although conveniently located, has become too small for its purpose and is obsolete in its arrangement and appointments. As the elevation of the tracks will necessitate a very radical change in the station anyway, its relocation at the intersection of Market Street should cause little if any increased ex-



The present C. & N. W. Railway station.

pense and will materially add to the attractiveness of the city. It is suggested in connection with the construction of the station that as much as possible of the space underneath the tracks be utilized both to provide for future expansion of the station facilities and for park-



Southwest Main Street looking toward Market Street, the site of the new union station proposed as a part of the Civic Center plan.

ing room for automobiles. For this reason it is recommended that a considerable portion of the track elevation through Kenosha be by concrete trestle instead of solid earth fill and retaining walls and fill, and the space thus provided will have a high value.

The Chicago, North Shore and Milwaukee R. R. (Electric).

This line offers very efficient local service between Chicago and Milwaukee, both for passengers and for package freight.

The passenger station is located at Elizabeth Street and Erie Street, a little over a mile from the business center of Kenosha. A con-

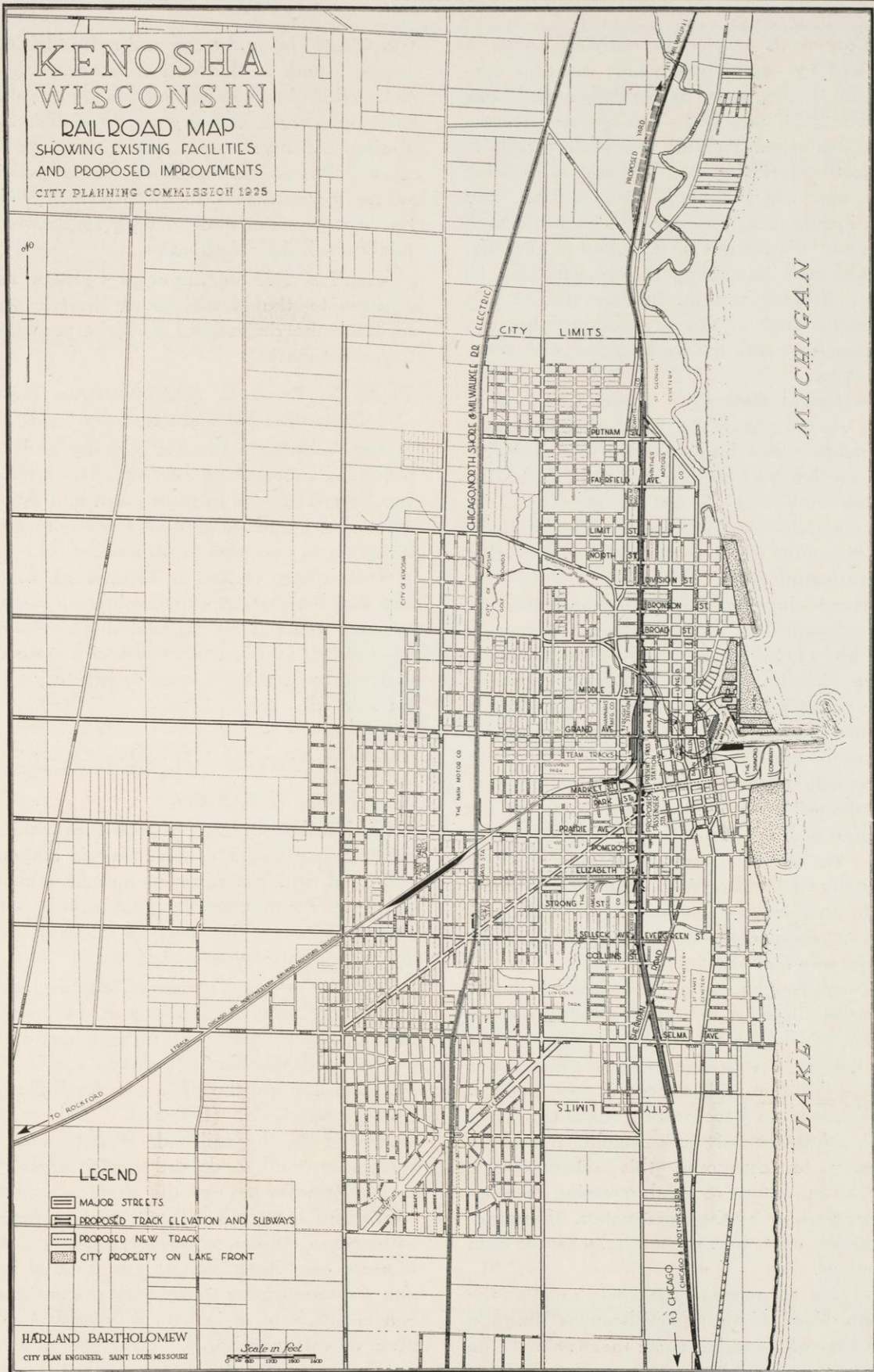


Plate 16.

tinuation of its service to outlying points is provided by auto buses, which are also operated by the company to Waukegan and Lake Geneva. The auto buses are operated from a downtown center at South and Main Streets to the North Shore station. The station building is 35 feet wide, about 100 feet long, and exceptionally neat in appearance and is well arranged. Patronage on this line is growing, and although handicapped somewhat by its relative distance from the business district, it is a valuable asset of the city and will become increasingly so with the westward spread of the population.

The freight station of this company is at Salem Avenue and the North Shore tracks. The building is of frame construction, 360 feet long, the inbound section being 40 feet wide and the outbound 35 feet wide. There are three scheduled package freight trains daily in each direction, Chicago and Milwaukee being the terminating points.

Carload shipments are not numerous but when of sufficient volume a carload train is made up to handle it. This line does not interchange with the C. & N. W. except occasionally in switching to some industry. Interchange movements with the E. J. & E. Railroad at Waukegan, Illinois, are frequent, and this connection will later prove of great value to future industries of Kenosha that may locate on the main line or branches of the North Shore Railroad. At present, carload business consists principally of building materials, such as sand, gravel, and crushed stone. The sand and gravel is shipped from Libertyville and the stone largely from Racine.

Through freight service of carloads in trains is not permitted in many towns and villages through which the North Shore passes, and even with six cars it is necessary in some places to break the train and proceed in two sections. For this road to become an important factor in the movement of bulk freight, it will be necessary to overcome this disadvantage, either by an extensive grade crossing elimination program or by the construction of another line farther west, beyond the influence of such restrictions.

In order to increase the usefulness of the Chicago, North Shore and Milwaukee Railroad to the City of Kenosha, some means should be

provided to bring the city and railroad in closer contact, and to this end it is recommended that a downtown freight station be established with auto truck delivery to the Salem Street station. Similarly, the street car schedules should be so arranged or buses provided whereby passengers to and from the North Shore station can more quickly and more certainly reach their destination.

Truck service operation in Chicago as an adjunct to the North Shore Electric would facilitate the delivery of Kenosha products to that great market.

T. M. E. R. & L. Co. Interurban Express, Milwaukee Northern Railway.

The Milwaukee Electric Railway and Light Company's interurban express offers rapid service from Kenosha to Milwaukee and intermediate towns, and to quite an extensive territory to the north and west of Milwaukee.

The freight station is located at Chicago and Garden Streets, conveniently close to the business center. A scheduled movement is maintained, and in connection with store door delivery by auto truck, very satisfactory service is rendered.

Industrial Development

Area North of Kenosha.

Further development of industries within the existing city limits of Kenosha is somewhat restricted, and is confined to a slight expansion of present areas so used. Land must be sought elsewhere to provide for the increase in this class of activities that is expected.

Without question the most suitable location for a new industrial district is that territory now used principally for farming lying adjacent to the north city limits, between the C. & N. W. Railroad and the Chicago, North Shore & Milwaukee R. R. (Electric). This land is accessible to the railroad, is flat, and well served by good roads and electric cars. It is on the leeward side of the city for prevailing winds and therefore will not cause annoyance by reason of noise or offensive odors. What is more important, the lake is close at hand, and the topography is such that the entire area can be made to fit in with a general development of a new harbor.

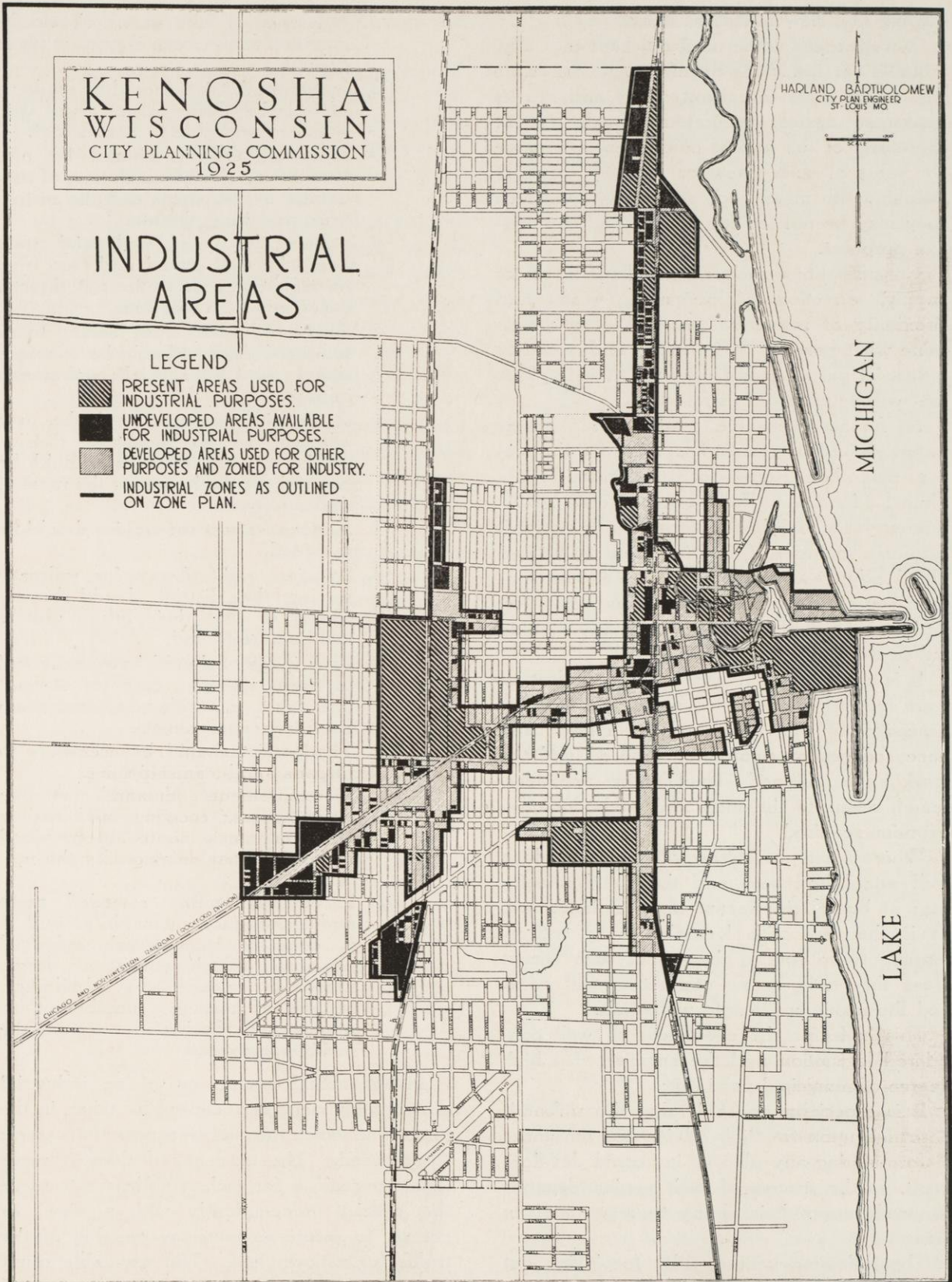


Plate 17.

Laying Out New Industrial Areas.

Vacant areas within and adjacent to a city, suitable for industrial development, constitute one of its most important assets and are its guarantee against stagnated growth. It is, therefore, of the utmost consequence to make the most of such tracts of land by carefully planning the manner of and extent to which they may be utilized for factory and commercial purposes.

Considerations such as fire hazard, water supply, direction of prevailing winds and proximity of residential sections often determine what parts of a city shall be devoted to industrial purposes and the kind of enterprises that will be tolerated there.

So far as practicable, projects of a similar nature should be grouped together for the reason that their needs for transportation are almost identical. For example, coal yards, lumber yards, building material supply stations, furniture factories, foundries, flour mills and allied industries, each have a more or less common source of supply for their raw materials, and their finished products are usually shipped out in the same general direction.

It is evident that if each of these industries were located in their own general district the necessity for intra-terminal switching, and hence congestion, would be reduced and the work in the railroads' classification yards lessened, owing to the simplified method of distribution required.

Where a city has already developed along well established lines and there still remains near its boundaries vacant tracts of land, such as is the case with Kenosha, it is entirely feasible to so control the use of such vacant areas that little or no congestion will occur and the maximum benefit will result.

This calls for the enactment of well considered legislation and the exercise of a high degree of municipal patriotism.

It is especially desirable that the railroads be called upon for their advice and assistance in formulating any plan of industrial development, as the success of such a plan depends primarily upon their ability to serve a given area.

The following general rules for laying out and controlling the use of industrial areas are offered as applicable to Kenosha:

1. Industries of like nature should be confined to the same district so far as possible.
2. Industrial districts should be made up of as large blocks or parcels of land as it is practicable to keep intact.
3. Industrial districts should be protected from the encroachment of residential development and the restrictions pertaining thereto.
4. Streets through industrial areas should be well paved and free from through traffic or traffic not directly concerned with that area.
5. Sewer and water lines leading to an industrial district should be of ample size to meet the special requirements imposed.
6. A certain proportion of the area adjacent to an industrial district, within walking distance, should be reserved for the homes of the mass of the employees.
7. Adequate street car service should be provided.
8. Sufficient right-of-way for railroads serving the district should be reserved so that their future growth will be unrestricted.
9. Each industry should have spurs and platform space to care for at least one day's run, with additional room for future requirements.
10. The district should be accessible to railroads and steamship lines.
11. As requirements demand, common freight houses, receiving and loading and team tracks should be provided in the industrial districts by the railroads.
12. Particularly within crowded areas and on the more valuable ground, it is desirable to establish industrial terminals, which consist of large, fireproof, multiple-story buildings, capable of housing a number of industries, all sharing in common the facilities provided.

In the actual laying out of an industrial district, too much care cannot be taken in the manner in which railroad transportation service is provided. The tendency if there is more than one road, is for each to endeavor to serve the district independently with a view, of course, to secure as much as possible of the traffic for its own line. The inevitable result of such procedure is confusion and a wasteful interference in each other's operations, greatly

to the detriment of the shippers' and hence the city's interest.

An essential feature is the establishment of small yards or sidings within or very near the district to act as reservoirs for the temporary storage of loads and empties which have been collected for delivery to or received from nearby industries.

Streets should be sufficiently wide to accommodate railroad tracks for switching, as it is generally unavoidable that they be used for this purpose sooner or later. By no means, however, should such tracks be used for through or main line traffic or, in fact, any other business that does not directly concern the industries within the immediate district.

Grade crossings may be minimized in number and importance by a careful study of the probable amount of cross traffic that may arise due to residential or other development on either side of a given area.

The exact location where separation of grades will be required should be fixed as soon as possible in order that buildings and other improvements in the vicinity may be planned to conform to the permanent lines and grades.

There is no question but that an industrial district planned and laid out in a logical systematic manner, with some assurance that conditions therein will remain stable, will prove infinitely more attractive to capital than one whose future is likely to develop haphazardly and at random.

The benefits accruing to a city from a healthy, free industrial growth are not to be estimated.

Industries of Kenosha.

The principal manufactures of Kenosha are as follows:

- Beds and Metal Furniture
- Brass Bed Machinery
- Tables
- Automobiles
- Auto and Bicycle Lamps, Auto Bumpers
(Igoe Mfg. Co.)
- Wagons
- Fire Trucks
- Auto Trucks
- Leather
- Wire Rope
- Springs
- Brass and Copper Sheeting, Tubing and
Wire
- Brass Novelties

- Machinery
- Tools
- Hosiery, Underwear and Sweaters
- Novelties
- Bakery Products.

It will be observed that some of the industries of Kenosha are supplementary to others. For example, one firm manufactures automobiles and another automobile lamps and accessories. One of the largest firms in the United States manufacturing brass, copper sheeting and tubing is in Kenosha, a very large part of whose product is worked up there into finished materials, such as brass parts for plumbers' supplies, brass novelties, lamps, etc.

There is still opportunity for other industries in Kenosha, the output of which could be used by local firms; for example the Simmons Company imports a great deal of rolled steel from Cleveland, Ohio, and Middleton, Ohio. Sheet steel is brought in from the Pittsburgh district and pig iron from Duluth and the Pittsburgh district, for the manufacture of automobiles. There is no tire factory in Kenosha, although the entire output of a factory of considerable size could be used by the Nash Company. Similarly there is a demand for a factory to furnish disc wheels, automobile bumpers, and material used for automobile tops. Disc wheels are now brought from Philadelphia and bumpers are made in North Chicago. Kenosha is well located for the manufacture of linseed oil, paints and varnishes, and is close to a very good consuming area for these products. The Simmons Company manufactures its own varnish and paints at present. Of the many industries for which the state of Wisconsin is especially noted, Kenosha lacks those for the manufacture of farming implements, boots and paper boxes, canning and preserving fruits and vegetables, men's clothing, confectionery and ice-cream, electrical machinery, flour mills, furniture, rolling mills and other steel works, planing mill products, meats, stamped and enameled ware and roofing materials.

St. Lawrence Waterway.

The advent of the St. Lawrence Deep Waterway will undoubtedly make of Kenosha a much more important manufacturing center than it is at this time. It should especially become an export point for a large amount of

grain. While other ports, such as Duluth, Milwaukee, Chicago and others will always be the principal export cities, nevertheless the smaller ports, especially those on the west shore of Lake Michigan, will all receive a great impetus to their growth by reason of this new route to the sea. Kenosha should be able to support at that time several flour mills, and also grain elevators for direct loading into boats.

The city should be a distribution center for fertilizers of all descriptions, the principal ingredients of which are imported from foreign countries, more particularly from South America. Kenosha with other cities on the west shore of Lake Michigan are advantageously located for maintaining ship yards and its accessory industries, such as woodworking establishments and ship supply houses.

Lakes to the Gulf Waterway.

Should reliable navigation be established between Chicago to the Gulf of Mexico by means of the proposed nine-foot channel, Kenosha and other cities of the Great Lakes in this district should be distinctly benefited providing the waterway is of such capacity that an appreciable amount of tonnage can be transported thereby. Such a waterway would bring our southern States, South America, Cuba and West Indies and Mexico in closer contact with the Great Lakes district than is now possible. Great quantities of sugar, coffee, molasses, sisal and a considerable amount of burlap would find their way to this district and furnish the incentive for new industries.

Hides are now shipped from California to Kenosha by way of the Panama Canal, and by rail from New York. Tannage extract, used in large quantities in Kenosha, is imported from South America. It reaches Milwaukee by

lake, and is there transferred to the railroad and brought to Kenosha. Raw cotton and textiles are examples of materials used in this city that can be brought at cheaper rates by water than by rail. The outgoing tonnage would consist of machinery, dairy products, automobiles and other products of this district.

Testimony taken by the senatorial investigating committee at St. Louis on October 22, 1923, indicated that coal would move northward in considerable quantity from lower Illinois, more particularly from those counties traversed by the Big Muddy River. While this waterway is still in the realm of speculation, as is the deeping of the St. Lawrence River, it is believed that the city of Kenosha has much to gain if either project is carried out. The St. Lawrence waterway, however, offers the most economic advantage and more immediate and positive results.

Suggested Port Plan

It is premature for the city of Kenosha to invest at this time any great amount of money in an elaborate plan for harbor development. It is not too early, however, to consider the matter in its various phases and to take the initial steps that will later make a comprehensive plan possible. The most important of these is the acquisition of riparian rights along the lake shore. The railroad plan, Plate No. 16, shows by the dotted area the extent of lake front ownership by the city. None of this land is suitably located for the development of a harbor for docking ocean vessels, as it is almost impossible to get satisfactory rail connection to any of it.

The following discussion deals with present harbor conditions, present need for improvements, and probably future requirements.

Description of Kenosha Harbor

The following description of the Kenosha harbor is from the report for 1922 of the United States Chief of Engineers:

"Kenosha harbor is on the west shore of Lake Michigan, distant about 35 miles southerly from Milwaukee and about 54 miles northerly from Chicago. It is at

the mouth of Pike Creek, and consists of an interior basin having an area of about eight acres and a channel protected by parallel piers extending therefrom to deep water in Lake Michigan. The entrance channel is protected on the north by a detached breakwater.

"The existing project provides for a

detached breakwater 800 feet long, for two parallel piers about 250 feet apart, 1,075 and 1,845 feet in length for the north and south piers, respectively, and for a channel 200 feet wide, 19 feet deep; this channel extends from that depth in the lake a distance of 2,350 feet to an interior basin 18 feet deep. The breakwater is formed of stone-filled cribs; the piers are formed of stone-filled cribs and piling. The entire north pier is capped with concrete superstructure.

"The project depths are referred to low-water datum for Lake Michigan, which is taken at 579.6 feet above mean tide level at New York. The fluctuations of water level are seasonal changes of about one-half foot above or below the annual mean stage, and extreme fluctuations of a temporary nature, due to wind and barometric pressure, of about 1½ feet above or below the mean lake level prevailing at the time.

"The estimate of cost of new work, made in 1906, was \$35,000, exclusive of amounts expended under previous projects. The latest (1917) approved estimate for annual cost of maintenance is \$7,000."

Terminal Facilities.

"The following wharves are not open to general public use: Three coal wharves with 1,765 feet frontage; one lumber wharf with 1,050 feet frontage; one package-freight wharf with 200 feet frontage; one tan-bark wharf with 970 feet frontage; one fishing wharf with 488 feet frontage.

"About 900 feet of revetment, built by the city of Kenosha along the north side of entrance channel and east side of basin, is available for wharfage and is open to general public use.

"More efficient use of existing terminals, the construction of 400 feet of revetment on the east side of the basin, and utilization of available frontage for development of additional terminals, particularly for the receipt of coal, is considered necessary to meet requirements of existing commerce and to better utilize the harbor facilities which have been provided by the Federal Government.

"While the extension of the breakwater has somewhat diminished disturbances in the harbor during storms, the water-borne commerce has decreased in tonnage since the completion of the project."

Commercial Statistics.

"The general character of the commerce for the last calendar year is coal,

automobiles, and unclassified commodities (package-freight). The usual limit of draft for package-freight vessels, comprising 45 per cent of the total traffic, is 12 feet; that for coal (40 per cent), is 18 feet; that for the remaining traffic (15 per cent) is 16 feet."

**Comparative Annual Statement
of Traffic**

Calendar year	Short Tons	Value	Passengers
1917	74,689	\$18,437,586	6,250
1918	42,982	9,654,532	3,370
1919	38,537	7,610,180	1,500
1920	35,232	13,942,570	
1921	25,589	3,815,700	

The decrease in tonnage compared to that of the preceding year is principally due to decreased receipts and shipments of automobiles and package-freight. The decrease in valuation is due to decreased receipts and shipments of high unit value and general decline in prices. The tonnage for 1922, as reported by the United States District Engineer, shows no increase.

**Kind and Amount of Traffic
For 1922**

Receipts	Tons
Fresh fish.....	64
Fresh fruit and potatoes.....	473
Coal and coke	5,289
Automobiles and automobile parts.....	1,760
Unclassified	7,165
Total	14,751
Shipments	
Automobiles and automobile parts.....	3,523
Unclassified	6,595
Total	10,118
Grand Total.....	24,869

Total appropriation to date of this report, \$678,807.41.

Present Needs of Kenosha Harbor.

The port of Kenosha is well adapted to handling a packet and passenger business, and for serving a few large plants that are located immediately on the water front. It is not now nor can it be easily made into a port for receiving or shipping large quantities of material in bulk, such as coal, coke, grains, pig iron, etc. This is due to restricted size and to its lack of railroad connections. No railroad track is near

enough to the port to effect an interchange between rail and water, except the privately owned track of the Simmons Company.

Practically all land bordering the present harbor adaptable for wharf purposes, is privately owned. The principal use made of the harbor is by the Hill Steamboat Line, which has a warehouse on the harbor at the foot of Cedar Street, and the Baldwin Coal Company. The latter occupies a portion of the south front along the channel, and is practically isolated from the streets by the surrounding buildings of the Simmons Company. Rail interchange is not practicable at either place.

The Nicholson Transit Company, with headquarters at Detroit, also makes this port, as does the Thompson Transit Corporation. Both lines carry automobiles principally. The Thompson Transit Corporation has constructed and operates a warehouse on the east shore of the basin.

The harbor technically extends up stream as far as Grand Avenue, but it is seldom navigated beyond Main Street. Further development beyond Main Street is not to be expected as the barrier interposed by the Main Street bridge and the crookedness of the channel are sufficient to discourage the entrance of any but the smallest vessels.

The harbor itself is rather small to act both as such and as a turning basin, and it is not capable of enlargement except at the sacrifice of much valuable land.

It is recommended that the present harbor be improved only sufficiently to develop its greatest possibilities as a packet and passenger terminal and that a new harbor for the handling of bulk shipments be eventually established elsewhere.

Traffic through the port of Kenosha at present amounts to about 30,000 tons annually, and consists of coal and general merchandise. Inbound tonnage is made up of dry goods, furniture, fruits, vegetables, hardware and metal goods. This is almost entirely for local delivery, and originates in Chicago, Waukegan and Milwaukee. Coal constitutes an important item of inbound tonnage. None of this tonnage is transhipped on railroads, but is bulk, such as coal, coke, grains, pig iron, etc. handled by trucks and teams from the docks.

Outbound tonnage originates locally and

consists of leather, autos, auto parts, machinery, brass goods, beds, furniture, knit goods and wire rope. Autos are forwarded to Detroit, Cleveland, Toledo and Buffalo. There are no elevators on the harbor and no grain is shipped.

The outbound tonnage is of two kinds—that for direct delivery in Chicago or other ports, or for delivery to railroads for distant destination. The former class enjoys a 10% differential in favor of the lake, and the latter is at standard rates. The handling of less than carload shipments by lake affords the advantage to the shipper of this rate differential in the case of local delivery, and a saving in time.

Navigation is open practically the entire year, which is a tremendous help toward maintaining the shipping business on a profitable basis. It is believed that the natural advantage of Kenosha's location will eventually justify the construction of a much larger harbor than now exists, especially if its industrial expansion continues.

Expansion of Present Harbor.

While the Kenosha harbor is too small for any very great development, it is capable of more intensive use than is now being made of it. By the acquisition of that property between Main Street and the Harbor line the city could obtain sufficient ground to construct a very complete terminal for the combined use of passengers and miscellaneous freight. This is shown by the cross-hatched area on the Railroad Map, Plate No. 16. By closing Pike Creek and extending the railroad track down the middle of it near the bridge along the dock wall, direct transfer from rail to water and vice versa can be obtained. The terminal then would consist of a docking edge of about 600 feet, of railroad tracks along the docking edge, and a two or three-story warehouse, with the second floor on street level for direct service by teams and trucks. The passenger waiting room would also be on the street level. This terminal would occupy the site upon which now stands a wooden coal dock, which is no longer used.

The terminal, such as described above, together with a similar development carried out on the opposite shore, should serve Kenosha's needs until the St. Lawrence Deep Waterway is opened for ocean steamship navigation.

Future Port Development.

Bearing in mind the necessity for railroad communication to the port, and the desirability of its being as close as possible to the heavy industrial district of the city, it is recommended that the new harbor be located approximately opposite the north city limits line of Kenosha.

At first, the port facilities should consist of receiving pier for coal, building supplies and other bulk materials, and of grain elevators for the shipment of wheat, corn, rye, flax and other grains. Later a transit shed, and perhaps warehouses for miscellaneous merchandise may be added. Space should be reserved for dry docks and coal and oil bunkers.

Rail connection to the C. & N. W. Railway

is comparatively easy to build through the swale or low lands extending to the suggested location. The yards for serving the port can be along the main line of the railroad and only sufficient tracks provided near the harbor itself for keeping a supply of cars on hand.

One of the principal immediate benefits Kenosha would receive from port development would be the securing of an adequate coal supply at prices substantially lower than at present. An example of this may be cited in the case of Waukegan, where it is said that, owing to its comparatively large and accessible harbor, hard coal can be procured for about \$3.00 per ton less than the same can be purchased in Kenosha.

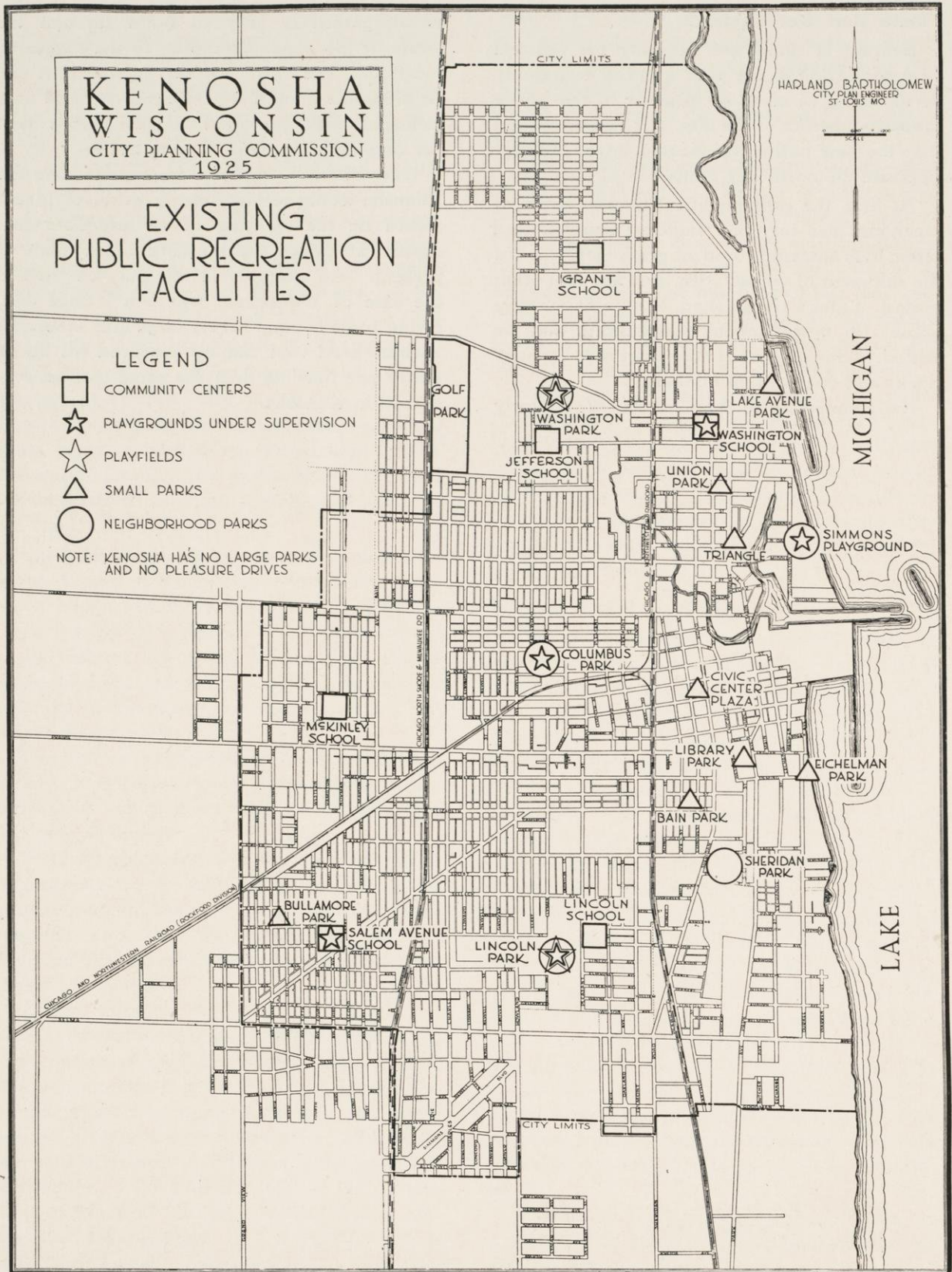


Plate 18.

RECREATION

The city of Kenosha is one of the few cities that appreciate the value of a balanced, all-year recreation program. The full significance of this fact should be understood. It means that the municipality not only buys parks and playgrounds and other recreation facilities and maintains them, as a great many cities do, but in addition supports a recreation department to show people how to use them. By this means the municipality secures adequate returns from its park and playground investments. The baseball diamonds are kept in use, tennis courts are in demand, the lawns of the parks are overrun by children at play. The purposes for which the taxpayers' money was spent when these areas were purchased are being realized fully.

It is instructive to review the activities and accomplishments of the recreational staff. They show at once what parks and playgrounds can really mean to a city and constitute an argument for the systematic acquisition and development of more such facilities.

In 1923 Kenosha's recreation activities were under the direction of one central authority, closely related to the public school system. The sum of \$14,447, chiefly municipal appropriation, was spent in this work. Recreation for all ages and classes was fostered. It was the aim of the staff to keep young and old interested in wholesome games and sports and social affairs throughout the entire year. How successful they were may be seen below. The record is all the more remarkable when it is considered that this movement in Kenosha is but two years old.

During the baseball season there were thirty-four teams playing regular baseball in six leagues, all these teams being in uniforms furnished by merchants and citizens interested in the sport. Playground ball was played by fifteen teams in two leagues. In the public and private schools during school term, 4670 boys and girls played regularly on organized teams of various sorts.

In the fall, soccer and regular football leagues were formed among boys and liberty ball was played by the girls. A business men's gymnasium association uses the facilities of the schools. City-wide social affairs, like Hallowe'en festivals and Thanksgiving parties are organized.

Winter sports and activities drew forth a total of 115,000 between November 1st and April 1st. Folk dancing, story telling, singing, basket ball and indoor baseball and skating enlisted the interest of school children. Adults had four basketball leagues, consisting of 22 teams, all players in suits; three indoor baseball leagues of 16 teams, playing a regular series of games. Skating was provided for on three rinks. Recreation centers were opened five nights a week in three districts, a complete program of activities being offered at each center. The average daily attendance at these recreation centers was 736.

Existing Recreation Facilities

The achievements of the recreation department, however, would not have been possible without proper support from all city agencies in charge of facilities which could be used for recreation. The School Board opened the school buildings for community uses, equipped and turned over playgrounds, and permitted the construction of skating ponds on its property. The Park Department redesigned and rebuilt several parks for more effective use, concentrating the facilities for active play, thus relieving and improving those sections of the parks best suited to normal park uses. There was a pretty general recognition of the fact among city departments that purchase and improvement of land and equipment for recreation is a problem quite different from that of organizing the human element for the year round use of these facilities.

During the 1923-1924 season Kenosha offered the following municipal buildings and grounds for recreation use. (See Plate No. 18.)

ELEMENTARY SCHOOLS

	Enrollment	Play Area Acres
Bain	1,137	1.36
Columbus	658	1.18
Durkee	650	1.30
Frank	618	.83
Washington	426	3.44
Lincoln	405	2.76
Salem	381	4.67
Weiskopf	374	1.46
Deming	305	.60
McKinley	303	1.67
Grant		
Jefferson		

JUNIOR HIGH SCHOOLS

McKinley	514	1.67
Lincoln	512	2.76
Washington	497	3.44

COMMUNITY CENTERS

Washington School
Lincoln School
McKinley School

SMALL PARKS

	Area Acres	Equipment
Civic Center	1.2	Playground apparatus
Union	1.2	
Bain	1.5	
Bullamore	1.06	
Library	5.4	

NEIGHBORHOOD PARKS

	Area	Equipment
Lincoln	44.07	Playground apparatus; 3 baseball diamonds; 2 tennis courts; 1 football field; 1 soccer field; 14 horseshoe courts.
Columbus	6.2	Playground apparatus
Sheridan	4.4	Playground apparatus
Eichelmann	2.5 usable, 37.89 to be reclaimed	
Simmons P. G.	33.7	Playground apparatus Playground apparatus bathing beach
Lake Avenue86 usable, 24.4 to be reclaimed	
Washington	23.82	Playground apparatus; 1 baseball diamond; 1 football field; 1 tennis court; 2 indoor baseball diamonds; 6 horseshoe courts
Golf Course	44.0	Golf Course

LARGE PARKS

None

PLEASURE DRIVES

None

In addition to the above there should be mentioned the Simmons and Nash Playgrounds for employees—two areas of surpassing attractiveness which do much to satisfy the recreational needs of a large body of citizens.

All the recreational equipment listed above is practically that which was available when the organized recreation movement was started in 1922. Prior to this time, Kenosha had not thought in terms of an all-year, city-wide recreation program. There consequently were many inadequacies in the equipment which the recreation staff had to surmount in order to carry on its first work. Generally speaking, these inadequacies were due to lack of foresight on the part of the city. Just as it permitted arterial highways to be laid out too narrow and did not require the continuation of other important thoroughfares, so it acquired too little space for public school sites, neglected playground needs and allowed desirable park lands to pass into other hands. Kenosha with its large foreign born population did not perceive the social value of the community meeting place. The older schools were poorly equipped to serve at once as educational and recreational centers. The city had parks adorned with heart-and-diamond shaped flower beds but no tennis courts, wading pools and baseball diamonds, and no golf course.

Many deficiencies still exist in the recreation equipment of the city. These will be more fully revealed in following pages. But there is an appreciation of the responsibilities now, however, and a determination to protect the city as much as possible from further structural weaknesses of this sort. For this a plan is needed showing how the recreational requirements of the city may be most effectively and economically met by the reservation of land in advance of growth. This phase of the city plan will supply such a guide.

Systematized Recreation Facilities in the City

The location of recreation facilities is all important. If Kenosha acquires land for parks or playgrounds without regard for the factors which affect their usefulness, it stands always in danger of realizing poor returns from its investment. It is almost axiomatic that playgrounds for small children should be placed where the little tots can reach them safely; that athletic fields for the youth of the city should be near the normal congregating places

of such groups, that parks for neighborhood use should be accessible without crossing railroad yards or invading industrial districts. No amount of money spent upon high-class equipment, or even the most capable leadership, can quite overcome the handicap of a badly placed park or playground.

The city plan in its emphasis upon forethought and the use of scientific methods in determining what facilities for recreation a city ought to have, and where they ought to be placed, becomes primarily an instrument of economy in city development. It is practically certain that Kenosha has not spent its last dollar in the purchase of recreation areas; it is certain that if it spends its money in the future according to a systematic plan, it will derive greater returns for these expenditures than it has been accustomed to.

It is pertinent to ask, therefore, what should the municipality do in the matter of providing play and recreation facilities for public use. In the first place the idea of a balanced recreation program implies the conduct of activities attractive to all ages and all classes. From the standpoint of recreation, the population of the city may be arranged into five broad groups, for each of which certain specific types of recreation grounds are especially adapted. (See Plate No. 19.) The city must consider:

The small children, from 1 to 5 years of age. The municipality should assure them adequate home grounds, and if possible interior block playgrounds where they may play safely and under parental observation, junior playgrounds at schools and in parks, to be used while accompanied by older brothers and sisters or parents.

The school group, of elementary school age, need large school playgrounds where both buildings and grounds may function together as an educational-recreational center throughout the entire year; park playgrounds, swimming pools, skating ponds, coasting hills and the like for free undirected play; large parks for hikes and contacts with nature.

The junior high group, of adolescent age, requires large-size playfields for both boys and girls at intermediate schools, tennis courts, baseball diamonds, pools, skating ponds and similar attractive facilities in convenient and easily accessible parks.

The youth of the city, those in high school and at work in factories, stores, offices, etc., should be furnished athletic fields fully equipped and of proper size to accommodate all the play activities of this important but often neglected group.

Adults, enjoy quiet rest parks close to the home, large parks where complete detachment may be found from the brick and stone, smoke and noise of the city, golf courses, swimming pools, tennis courts, floral displays, animal collections, boating, water scenes, concert lawns and especially designed drives connecting the parks that will afford pleasure to all families possessing an automobile or conveyance of any sort.

A city properly planned should have between 10 and 15 per cent of its area devoted to public recreation, distributed among facilities of the various types listed above. No

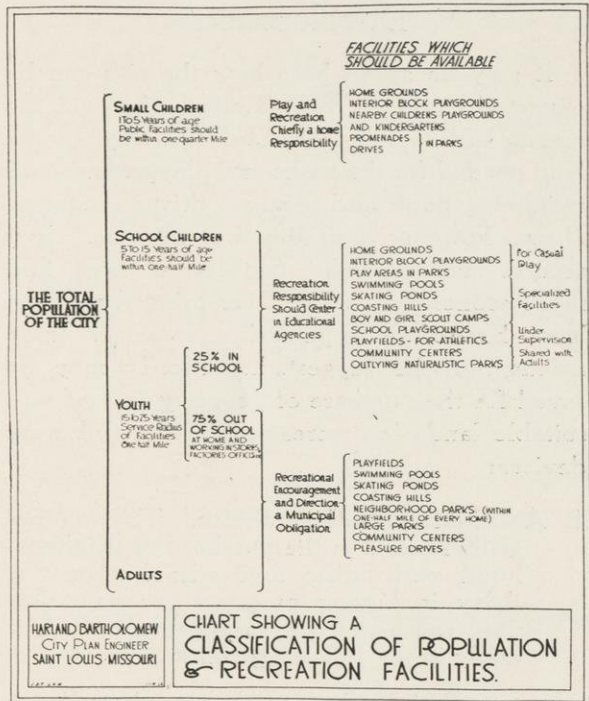


Plate 19.

child would have to walk more than half a mile to reach his school and playground, and the latter would offer him in no case less than two full acres of play space. At every junior high school there would be a playfield of at least ten acres, and at every senior school a larger one, fifteen acres or more, containing a complete athletic field and the equipment of tennis

courts, baseball and football fields, running track and similar facilities needed for young men and women of this particular age. A neighborhood park of at least twenty acres would be within walking distance (one-half mile) of every home, and these intown parks and large outlying reservations together should offer one acre of park attractions to every 100 of the city's population. Interwoven through the structure of the city also would be a connected chain of straight formal boulevards and winding naturalistic parkways, the latter laid out chiefly along river banks, water courses, and utilizing generally areas not likely to be assets to the city if left in private hands. These are standards which scores of progressive cities are following in the development of systematized recreation facilities.

Effecting Economies in City Development

It may be asked here how the city can be expected to do all this. Kenosha has not the means with which to go out and buy all the land needed for the parks and playgrounds and swimming pools and pleasure drives suggested above, however desirable they may be. If it secures such splendid features, it must find more economical ways of acquiring them than have heretofore appeared. Some of these means may be suggested. Money may be saved for the purchase of properly located and suitable lands for recreation by the following devices:

1. **Anticipatory land purchases.** This is especially needed in the purchase of neighborhood park areas and school sites. A delay in buying property for such uses until residential prices apply results generally in the following conditions:

a—Park lands are not secured at all, are cut down severely in size, or are not taken in the proper location to render the most effective service, but are bought where cheap prices happen to prevail when the city finally decides to act. Such a dilatory policy results in placing parks next to cemeteries, in districts that ought to be reserved for industries, between railroads and in other inaccessible, improper locations.

b—School sites are secured without regard for the amount of space which will be needed when every residence lot in the district is in use and the maximum number of children are demanding enrollment. The school site is not placed in the approximate center of the district to be served. As in the case of parks, the school, because land was reserved too late, must draw its enrollment across railroads, through industrial areas and around parks and cemeteries. The school board which outlines its elementary school districts well in advance of city growth and purchases sites at acreage prices can generally buy five or six splendidly located areas averaging five acres each for what it would have to pay later for one inadequate, badly located group of expensive lots. School sites, moreover, should not utilize valuable frontage or major streets. A site just off the thoroughfare is at once safer and generally less expensive. Timely purchases of land will obviate such unsatisfactory conditions.

2. **Avoiding duplication.** Too often the park department and the schools are both spending city money trying to serve the play needs of children, and neither agency is doing its work well.
3. **Eliminating waste and unproductive land in the city.** Careful general planning, the opening of new streets, resubdivision of land and similar expedients will usually rectify wasteful conditions. In certain cases it may even be desirable for the city to buy low-lying property for recreation purposes, in order to prevent a shabby development that will adversely affect the value of surrounding property. The existence of population congestion and waste land in the same locality is a well-known characteristic of populous centers. The increase of tax revenues resulting from the utilization of such space will tend to make it easier for the city to supply needed recreation facilities.
4. **Proper land platting.** Unscientific and misguided subdivision practice is responsible in large measure for the failure of the city to secure the land it needs for public recreation. Low areas, which in the form of parkways or filled parks and playgrounds might become an asset to nearby property and to the city, are cut up into

lots and sold off, in the belief that more money is thus made for the owner. Such lots frequently remain unused for years, producing little or no returns to the city and tending always to cast a blight upon better lots adjoining.

5. **Use of assessment district methods for the purchase of purely local parks and recreation areas.** The subdividers of land on the outskirts of the city should set aside ten per cent of each tract for park purposes and recover full value of this reserved area and a profit by capitalizing the advantages accruing to remaining lots. In the city of Minneapolis all small parks and playgrounds are secured by distributing the cost of such lands according to graduated zones of benefit in approximately a square mile of tributary territory. The debt of the city is thus not increased, yet the people of each district are provided with adequate recreation grounds.

6. **Development of civic pride among realtors and men engaged in promoting land subdivisions.** To such men the city must look for those occasional small parks, the triangles and squares and plazas which add to the city's attractiveness. Whatever pleasure drives the city secures, it will also have to get largely through men who are planning streets in outlying districts. Kenosha can be made an immeasurably better city if realtors will only recognize the splendid opportunity for public service inherent in their daily work. By working together they can equip the city with small parks, parkways and boulevards at no cost to themselves and with untold benefit to the city in which they live. No other class of citizens has such opportunities.

The above devices for effecting greater economy in the reservation and purchase of land for public use are not spectacular, but that should not obscure their real merit. It is incumbent upon municipal officials to seek and take advantage of every opportunity to relieve the financial burden which development of a comprehensive system of recreation facilities implies. The methods of securing playgrounds, local parks, pleasure drives and the like, which are suggested above if put to full use, will lessen the general obligation of the city and greatly aid it in developing the sort of recreation equipment which a progressive community like Kenosha ought to have.

It should be noted, too, that Kenosha may reasonably expect in the future some help from the county in the reservation of large outlying park areas and forest preserves. The lake counties of Wisconsin and Illinois, especially those related to the metropolitan districts of Milwaukee and Chicago, have a special problem in this respect. They are rapidly being changed in character by the development of transportation facilities, the expansion of industry, the growth of urban centers. County and state must be looked to for the preservation of certain natural parks in this metropolitan district. Kenosha county possesses several privately owned areas of surpassing beauty, which people have used as parks for many years. It would be a great misfortune to allow these treasures to be lost. County authorities must consider it as much a part of their duty to anticipate the future recreation needs of the people of this section as to provide them with permanent roads and jails. The city of Kenosha will do its part, but in view of the steady encroachment of metropolitan influences in this section, it will need some outside help.

The principal object of the city plan as regards recreation facilities is to point out the necessity for, and outline economical ways and means of securing suitable land space for such features. The improvement and management of these facilities and the arrangements that are made for directing their use are of incidental importance. Such matters are merely mentioned in preceding pages for the purpose of discovering what facilities the city already has, their efficiency rating and what new ones are needed.

A Plan for More Effective Recreation Facilities

Based upon experiences to date, the recreation staff of the city lists the following present needs:

- 3 additional baseball fields.
- 1 football field
- 3 swimming pools.
- 10 tennis courts.
- 6 wading pools.
- 6 modern sand piles.

The above list represents a shortage of facilities for the city of today, with its 50,000 popu-

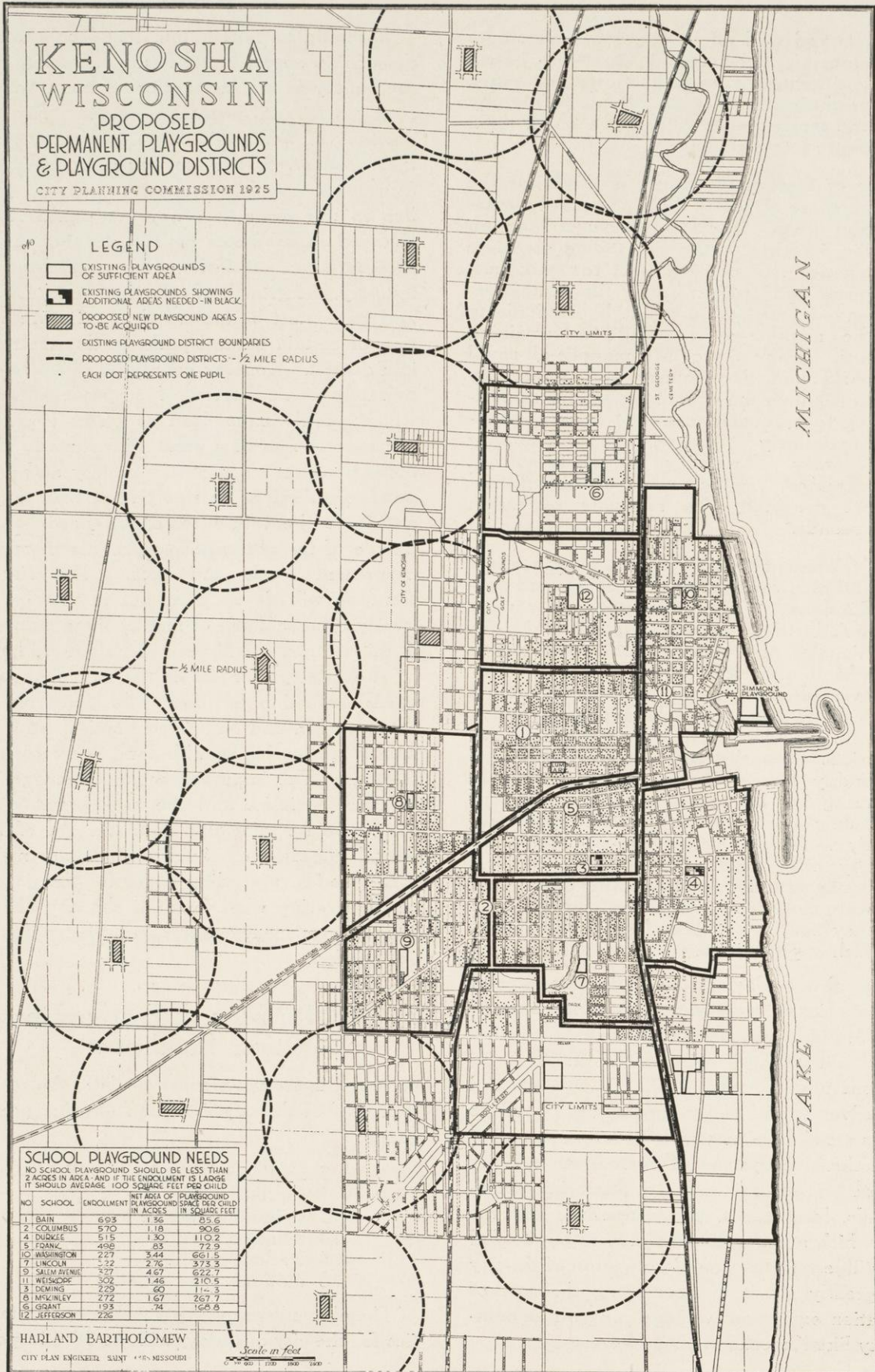


Plate 20.

lation. The interest in recreation already aroused would be sufficient, according to the authorities, to keep all the above items in constant use during the season. This is an indication of the project before Kenosha if the municipality wishes to make further investments in community health and well-being through the development of recreation facilities.

The city must view this problem from the standpoint of economics. To be worth what they cost all recreation facilities should be placed where the largest numbers may reach and use them without conflict of interest and without inconvenience. The unnecessary expense resulting from duplication of service is especially to be avoided. All recreation facilities of the city, regardless of type, ownership of land, or present management, should be considered as a **system**, functioning for the benefit of all citizens of Kenosha.

The specific recreation units which the city should seek to introduce in proper locations throughout the structure of the city may be listed again as follows:

1. Playgrounds—
 - (a) Junior—for younger children.
 - (b) Senior—for children of elementary school age.
2. Play or athletic fields—
3. Parks—
 - (a) Small rest areas.
 - (b) Neighborhood parks.
 - (c) Large reservations.
4. Pleasure drives.
5. Community centers.
6. Special features, such as detached swimming pools, skating ponds, coasting hills.

A definite fixing of responsibility for the acquisition of the land needed for these various items is essential to the success of the program.

Playgrounds

Several tendencies in the modern city have served to stimulate the present wide interest in playgrounds. Single home yards are not altogether suitable for group play. They are becoming scarcer and more restricted. Children are forced to play upon privately owned vacant lots or in the street. The former are

rapidly disappearing in close-in residential districts and the latter are becoming more and more dangerous every day.

For the younger children there ought to be nearby, protected playgrounds, areas which they can call their own. What are known as interior block playgrounds deserve consideration. A twenty-five or thirty-foot strip off the rear of every lot would scarcely be missed in those blocks where lots are 130 to 150 feet deep. Yet these contributions, if consolidated, would give the young folks of each block a generous, secluded playground, always open to parental observation.

It will not often be possible, in sections where such a device would prove of greatest relief, i. e., in built-up districts, to effect the immediate development of an interior block playground. Barns, garages, fences and similar structures usually occupy the rear of lots. In certain cases, however, there may be a minimum number of these structures, or they may be subject to eventual removal through transformation of the residences. The advantage of an interior block playground at such a time may be perceived by owners of the property. Certainly the possibility of opening up such areas in the central section of the city should not be overlooked. The city should be prepared at all times to suggest plans for the creation of these most valuable junior playgrounds. It is in the newer districts, however, that the interior block playground idea may be carried out. The execution of the major street plan will make possible more varied land subdivision. In blocks of irregular shape, such as will occur in undulating topography and in districts designed for quiet residential use, interior block playgrounds naturally suggest themselves. As new land subdivision plats come before the city plan commission they should be reviewed for interior block playground opportunities. Realtors when fully acquainted with the advantages of these features are generally willing to revise plans so as to create them.

Kenosha has already had considerable experience in the development of school and park playgrounds. In 1923 fourteen areas, which may be classified as playgrounds, appear in the recreation system, the supervision of play activities being in charge of the recreation divi-

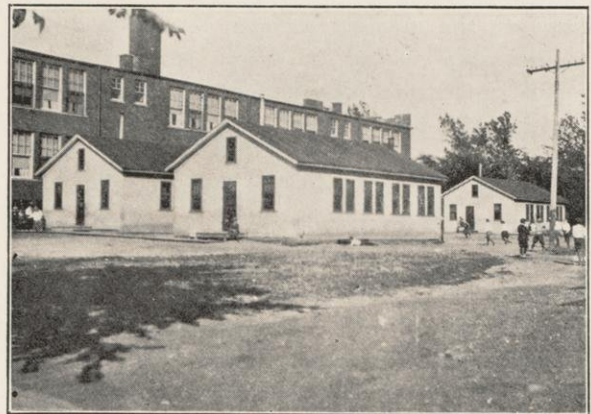
sion of the public schools. The location of these grounds with reference to the children of the city is shown in Plate No. 20. Kenosha has taken a very commendable step in centering playground activities in the schools. It is avoiding the duplication of effort, which is common elsewhere.

The soundness of this principle of placing playgrounds at schools is more apparent today than it was when the playground movement was first started. Many cities are coming to realize that since playgrounds are for children and have such potent educational possibilities, the duty of looking after them seems best centered in the school system. If it were merely a provision of space or the erection of apparatus, the responsibility might perhaps remain in the park department.

But the playground problem is more complex. The provision of space, the use of facilities, the proper management of playground activities represent merely an extension of the normal activities of the public school organization. By a slight modification of policy the school board may carry on playground work. To do the same work as well, the park department must enter a field calling for a specialized personnel, must find properly located and adequate space, must duplicate many routine efforts of the schools. The school department, by assuming control of playgrounds and playground work in Kenosha, has effected certain municipal economies. There accrue to the city these advantages:

- (a) School grounds are more widely used, thus better justifying their cost.
- (b) Playgrounds at schools, the latter being spaced so as to be accessible, will consequently be within reach of children who will use them.
- (c) Duplication of playgrounds need not occur, as will frequently happen when there is no clear understanding as to which municipal agency has playground responsibility.
- (d) The organization of a directing personnel for playgrounds is easier when playgrounds are year-round institutions under the school authorities.
- (e) Playground interests may readily be correlated with social center activities, the public schools being well adapted to the latter uses.

The inauguration of a comprehensive recreation movement in Kenosha, however, has served to emphasize deficiencies of playground



When the school board fails to keep up its building program encroachments are generally made on the children's play space.

location and area. The older schools of the city, for instance, were built upon sites now too small for both school and playground purposes. The standard of not less than two acres for a playground and 100 square feet per child in the case of large schools, was not followed until recently. The newer school sites, however, are all large and will be adequate for school and playground purposes if buildings are properly located upon them.

Playgrounds at **all** the schools of the city obviously would place such recreation facilities within convenient reach of all school children, and if the grounds were adequate and the direction of playground work systematic, would greatly extend the beneficial influences of such facilities. The playground problem for Kenosha, however, because of existing conditions, becomes chiefly that of (a) increasing by timely purchase of adjoining property, the inadequate yard space of certain schools, and (b) adopting a definite formula for the location of new schools and the purchase of school sites of standard size. In the case of elementary schools, the standard is five acres, intermediate, ten to fifteen acres, senior high schools, fifteen to twenty-five acres.

Regarding the first proposal (a), above it should be noted that two factors deserve consideration in planning an enlargement of school grounds. There are certain elementary schools in Kenosha which, in the course of time, be-

cause of obsolescence and duplication, are likely to be abandoned. Only those schools which are permanent need to be considered in developing playground facilities. Such schools are established institutions in their respective districts. If their yard space is below standard, enlargement will, in all likelihood, never be less necessary than it is now. Obviously those schools which have the smallest play areas now and are in the most thickly populated districts not served by other play facilities, deserve primary consideration. Plate No. 20 shows the distribution of elementary public school enrollment for 1924 and indicates conditions with respect to playground areas, including district boundaries as determined by railroads, arterial highways and similar existing barriers in the city.

The most satisfactory method of assuring the children of all parts of the city playground areas would seem to be to consider the following as permanent playground centers:

Simmons Playground—This area will have to be developed for playground service to the children now living in the district served generally by the Weiskopf school. A playground ought to be maintained at the school, but the yard space is small and the school old. Because of the changing character of the district this school is not to be considered a permanent elementary school center.

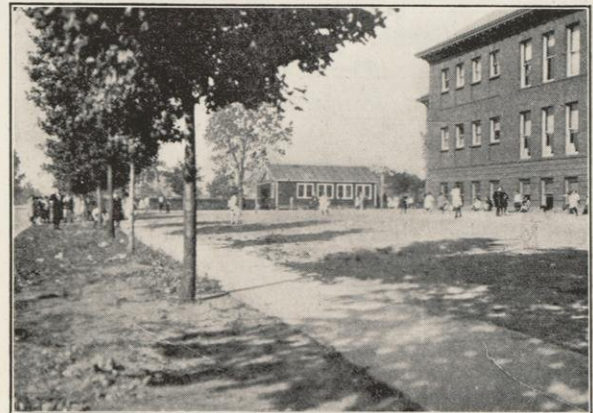
Washington School—The Gillette schools occupy this site. The playground area is thereby reduced somewhat, but the opportunity

is here for the creation of a first-class play center.

Grant School—As it exists at present the Grant School playground is adequate in size. It is unusable, though, because the building has only recently been completed. Grading and landscape development are needed to recover the value of this center.

Jefferson School—This is a new school built from the same plans as the Grant. The site is adequate for playground purposes.

Columbus Park—As Plate No. 20 shows, there is no other district of the city as densely



Grounds of the Bain School are so cramped that play in the streets is necessary.

populated with children of playground age. The Bain school, which ought to serve as center for social, educational and recreational activities of this section, is not adapted to such use.

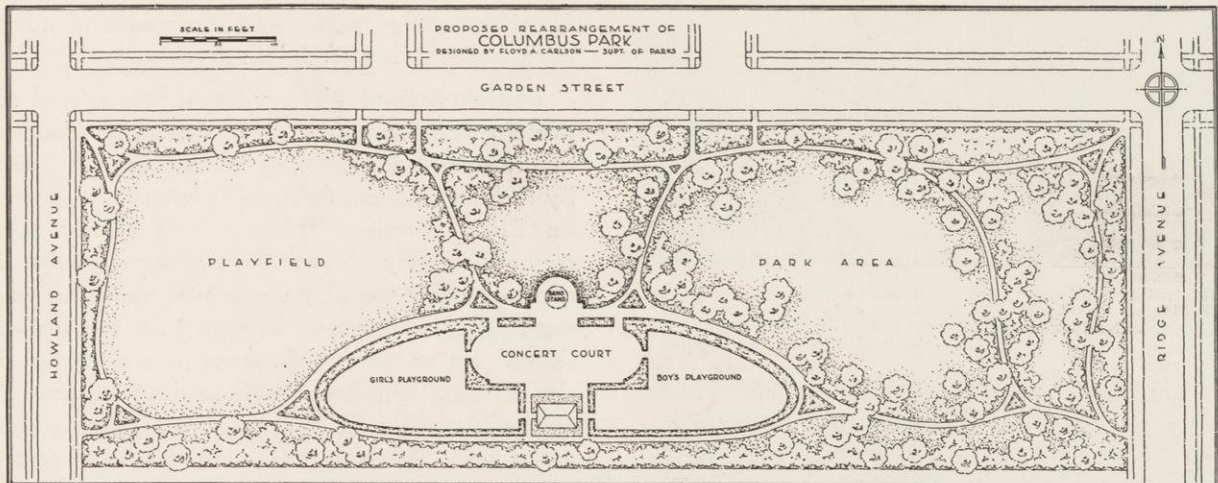


Plate 21.

The building has no auditorium or gymnasium. The playground is deplorably inadequate.

The challenge to educational and recreational authorities which exists in the Bain School, cannot properly be met through the public school. It is recommended, therefore, that Columbus Park be made a complete recreation center. This calls for a new park design. The area should be at once a park with distinctive park features and a junior-senior playground. It would be advisable for the city at some future date to build a first-class social center building here. A suggested plan for the improvement of this park and the increase of its efficiency is shown, Plate No. 21.

Deming School—The Frank School serves a considerable number of children educationally, but offers them comparatively few recreational advantages. The playground area of the Frank school is below standard and probably cannot be increased. The most feasible plan for offering children playground advantages comparable to those enjoyed elsewhere in the city, is to increase the size of the Deming school grounds and constitute this the playground center. The eventual removal of the vocational school will relieve conditions somewhat and enable the city to construct a first-class playground at the Deming School.



Illustrating the advantages of locating a public school adjacent to a park. The boys and girls of the Lincoln School finding their own school grounds too small use the playfield of the park.

Lincoln School—The Columbus School has a very cramped playground. It is futile to expect this school to serve as a playground center even for the small district which it serves. The site of this school, in size and location, is rep-

resentative of the worst practice in the investment of municipal funds. Foresight and a more sympathetic consideration of the needs of children should have led the school board to buy a large tract off the busy thoroughfare and more centrally located with respect to the western boundary of the district, which will probably always be the North Shore Electric line. Because of these conditions, it is believed that the playground center for many of the children in the Columbus district will have to be at the Lincoln School, the play area for which is maintained across the street in Lincoln Park. The superiority of this play center would justify requiring the children to walk as far as some of them will have to in order to reach it.

McKinley School—This school is designated as a junior high school, although a site for an elementary center has just been purchased nearby. The two schools will jointly use the junior-senior playground between them. The tract is not as large as it ought to be for such numbers, but when it is finally improved it will be a satisfactory recreation area for this district.

Salem Avenue—The permanent elementary school has not yet been erected upon this site. Enough land has been secured, however, to provide an adequate, well-proportioned playground. The one fault of the site is that it absorbs too much valuable frontage on an arterial highway and consequently exposes the children to unnecessary dangers. This may be obviated by setting the new school well back from the street and making something of a park between it and Salem Avenue.

Durkee School—The yard of this school at present is inadequate. The playground needs of the district ought to be served at the school by the acquisition of the additional area shown on Plate Number Three. This school will probably always be an elementary center and need of adequate play space will never be less urgent than it is now. Property for the school should be acquired whenever it comes upon the market. Until such time as the school playground can be developed, the junior playground in Sheridan Park will have to serve many needs of the district.

New Playground Centers—The proper plac-

ing of elementary schools and the purchase of five-acre school sites in the future will provide splendidly for the extension of the system of educational-recreational centers for children. Such centers may be expected at the following sites:

The north end of the Bonnie Hame site.

The new site on Howland Avenue south.
The new site on Park Avenue south of Selma.

Additional centers properly spaced, with district boundaries determined by principal major streets, railroads and such, are shown on Plate No. 20. If the city can find means of acquiring outlying areas approximately as shown in the center of each district before acreage prices have been superseded by city land values, it will have successfully solved its elementary school and playground problem at a minimum cost.

The development of "school" playgrounds, as proposed herein, however, does not mean that there shall be no more playgrounds in parks. The city, as distinct from schools, is not expected to abandon all responsibility for the provision of space for the play of children. It should aid the schools wherever possible to meet the recreation and play requirements of this class. The co-operation of the municipality can take the form of—

(a) Assisting the Board of Education by frequent collaboration on planning problems to secure proper school sites, i. e., assuring a distribution of such institutions over the area of the city, placing them with reference to heavy traffic streets, boulevards, parks, transportation lines, etc., encouraging in land subdivision the specific platting of school areas and the reservation of such sites.

(b) Offering to the schools, for combined school and playground sites, park lands that represent a duplication of service.

(c) Purchasing, whenever opportunity offers, additional playground areas in districts now lacking neighborhood parks, playgrounds and adequate school yards. These areas will render more effective service if contiguous to or intimately connected with existing or proposed public schools. Plate No. 20 will show the sections of the city where the school population is densest and where play facilities are lacking.

(d) Developing play areas in neighborhood and other parks. In such areas the children may play without restraint, but protected while parents enjoy other park features.

(e) Building swimming pools and skating ponds in parks and playfields.

The Board of Education should assume charge of all **organized** play activities, leaving the city still free to do its share toward providing those facilities which both children and adults voluntarily seek and wish to use, with or without supervision.

The parochial and private school enrollment of Kenosha presents another serious problem in the planning of adequate recreation grounds for children. In 1923 approximately twenty-five per cent of the total enrollment of the city was found in parochial or private schools. These children will have to find their recreation areas adjacent to these schools or else depend upon the play areas in parks or maintained by the municipality.

Play or Athletic Fields

The distinction between "playgrounds," discussed above, and "playfields" should be understood. Playgrounds appeal chiefly to children of elementary school age. Boys and girls about the age of fifteen lose interest in the activities of playgrounds. They wish detachment from the "kids" and prefer more active games and sports, such as baseball, basketball, tennis, football, running and swimming. These activities are best accommodated on certain distinct units of the recreation system, which for purposes of proper recreation planning are called playfields. Playfields, therefore, should accommodate primarily the athletic and recreational interests of the youth of the city.

In order to place facilities of this sort within convenient reach of all young people, two types of playfields should be distributed over the city. All junior and senior high schools should be equipped with such fields, and on these fields the school group should find outlet for practically all recreational interests. Supplementing those playfields should be others, similar in character but under municipal direction. On these areas the young men and women who are no longer in school should find oppor-

tunity for wholesome recreation. Because of the advanced age of those who use playfields, they draw from larger areas and consequently need not be as numerous as playgrounds. When developed in conjunction with high schools and neighborhood parks, playfields are generally well spaced with respect to the population which uses them. Under such conditions a playfield is within walking distance of all who want to play baseball, tennis, football or similar out-of-door games.

Kenosha fortunately is preparing to develop playfields for junior-senior high schools. The Bonnie Hame school tract is large enough for a thoroughly modern athletic field. Another in Lincoln Park will be available near the junior high school of that name. Washington and McKinley schools will both have suitable playfields adjoining, provided these sites are not further reduced by building.

It is especially to be urged that the Board of Education secure large sites for all high schools and make them real playfields. Especial effort should be made to correct the present tendency to glorify the competitive teams of the schools. The athletics of the great body of students should not be neglected. Upon adequate, well-planned school grounds, all boys and girls should find recreation. Something more than a spectator's interest would develop among them if plenty of tennis courts, hockey fields, baseball diamonds and the like were available close to the school buildings. Present conditions now favor the development of highly trained representative athletic teams, but force the great majority to seek automobiles, movies, indoor game resorts and entertainment that makes little or no contribution to either physical or moral well being.

In the future, the sites selected for all new schools should conform to the standards previously noted: junior high schools need approximately fifteen acres; senior high schools, twenty-five. Areas of such size will accommodate large buildings and yet permit development of satisfactory playfields adjoining. The school needs of the city can be estimated with sufficient accuracy to justify anticipatory purchases of areas of this size. By acquiring generous sites well in advance of needs, the city saves in two notable ways: it gets land at reasonable prices and it provides each school

at the outset with that which is most needed for a first-class outdoor equipment—an adequate site.

For that proportion of the youth of the city which no longer attends schools, the city has already provided two playfields, one at Lincoln and another at Washington Park. The placement of these units is generally satisfactory. It will be noted, however, that west of the North Shore Railway there is need of space for more such fields. This need can be satisfied chiefly through acquisition of neighborhood parks, a matter to be discussed later.

Community Centers

Community center interests in Kenosha have already been notably advanced by the Board of Education and Park Department. By opening the school buildings for neighborhood activities the Board of Education has greatly stimulated the community spirit and advanced public interest in wholesome recreation. By encouraging the use of park shelter houses for evening games, dances and parties, the park department offers a constructive solution of the leisure time problem of many young men and women. The following community centers were open during the past season:

WASHINGTON SCHOOL
 MCKINLEY SCHOOL
 LINCOLN SCHOOL
 SALEM AVENUE SCHOOL
 JEFFERSON SCHOOL
 GRANT SCHOOL

The chief need in connection with the provision of community center facilities appears to be that of providing more and better equipment. The deficiencies of some of the older schools are gradually being corrected, and most of the newer buildings are much better adapted to community center uses. A real social center building nearer the heart of the city would be a most useful unit of the recreation system. Columbus Park is seriously in need of such a feature. All the neighborhood parks should have community buildings that are both attractive and useful.

Parks

It is necessary in planning a functional system of recreation facilities to classify parks

according to service rendered. The parks of Kenosha do not all have equal value in meeting the play and recreation requirements of the people. Size, character, accessibility, treatment, and similar factors all affect the usefulness of any so-called park. It is a mistake to presume that the recreation needs of young and old in a certain section are properly supplied merely because an area generally known as a "park" appears in the locality.

When such a narrow conception of the usefulness of parks exists, the city is likely to find itself being equipped with "gift" parks, or "bargain" parks, areas which may or may not be related to the real recreational needs of the people. If the value of parks in the city is properly understood, the development of these features will be systematic, according to a definite formula.

Small parks will be incorporated in the city structure, not because they hold notable recreational possibilities, but because of the significant contribution they can make to the amenities of city life.

Neighborhood parks will be eagerly sought and disposed with a certain degree of regularity throughout the structure of the city. These features of the recreation system answer a most serious need; the city should select the sites of neighborhood parks and place them where they may render the widest possible service.

Large parks are practically as essential as neighborhood parks, but have a different function. Their dominant characteristic should be size. This precludes the adoption of any set plan or formula for their location. Natural attractions, timely purchases, gifts, may all aid the city to secure its large parks. It is necessary only to provide proper access to these units by correlated development of pleasure traffic-ways and transportation facilities, and to develop these areas so that their natural charms may be preserved.

Small Parks: Under the general heading, "Small Parks," are classified all those public grounds which, because of their diminutive size, have limited recreational possibilities. These parks range in area from the single blocks frequently dedicated to public use in subdivisions, to the fragments left at irregular street intersections. Practically every city has one or more such areas.

The degree of appreciation which is accorded small parks varies. Some cities ignore them because of their limitations, and as a consequence they become waste spaces. Some transform them into noisy, unregulated and unsatisfactory "playgrounds," and by applying this term to them avoid the purchase and development of really adequate and properly located playgrounds. Other cities have a different conception of the service of these small parks and make them delightful breathing spots, always neat and clean, with lawns and trees and shrubs contributing dignity and character to the neighborhood. When so treated they make a distinct impression upon visitors and inspire generally a higher regard for the city. Not every microscopic "park" offered as bait by speculative real estate operators is capable of rendering proper service to the city. Generally speaking, however, these areas when well placed and of reasonable size, have a value to the community which should not be underestimated.

Kenosha has a number of small parks. Their size and locations may be fully studied in Plate Number 22. They are usually attractive and do much to create a favorable impression of the city. Library Park is as delightful a spot as may be found in any city. In developing the structure of the future city these small parks should be introduced wherever opportunity offers. In land subdivision it is often very desirable to plat a two to six-acre small park to stimulate interest in what might otherwise be an unattractive group of lots. In street improvements such as are contemplated in the major street plan, there may come forth odd-shaped parcels, which make splendid small parks.

Neighborhood Parks: Of primary importance in a well-rounded park system are neighborhood parks. These pleasure grounds, while not differing greatly in size from "small parks," stand at the opposite pole in usefulness. In the modern city they are practically indispensable. Their incorporation in the urban structure has become as essential as the provision of sewers, water supply and pavements.

Neighborhood parks are precisely what the name indicates. They are intimate community recreation areas. Their great value in the

modern city depends chiefly upon their accessibility. A neighborhood park should be within walking distance of practically every person in the city—one-half mile is generally considered a fair radius of the service area.

A neighborhood park of twenty or thirty acres should occupy the center of each square mile of residential territory in the city. With a normal population density around it, each park of this type may be expected to serve approximately 2500 families. Since Kenosha is adding approximately 250 families to its population yearly, it may be stated that so long as growth at this rate continues the city should plan to acquire at least one such area every ten years. With the zone plan in effect it should not be difficult to select sites for neighborhood parks that will prove to be properly related to the home districts of those who will use them.

The intensive usefulness of neighborhood parks makes their design a serious problem. They cannot be mere open spaces in the midst of thickly built-up neighborhoods. Their design must reflect in a measure the nature of their surroundings. An economical layout is needed. No waste areas should appear. Every section of the area must perform some park service of value, must offer some attraction to the diverse classes who will live around the park. Automobile driveways are wholly out of place except perhaps for approach to a parking space near a concert court or some such feature. Walks should invite promenading, and also provide short-cuts through the area. There should be a formal display of flowers for those who enjoy colors, water in a fountain, trees and lawns, play areas for children, perhaps tennis courts, and if possible, a band pavilion and well-proportioned concert court. The whole layout of the park should be trim and neat and well adapted to interior city conditions. It should lack nothing which people forced to live under such conditions desire for recreation and pleasure. The superintendent of parks in Kenosha appreciates the importance of design and is developing the neighborhood parks of the city according to modern standards.

Plate Number 21 is a reproduction of the design prepared for Columbus Park, a neighborhood park which at present, because of poor landscape treatment, has a low efficiency

rating. A study of this design will suggest the usefulness of this area. The designer in handling the site has produced a neighborhood



Columbus Park which is neither a good park nor a satisfactory play area, but which with a new design would be greatly improved.

park with attractions for all ages. A small area is reserved for the play of younger children; a larger section of the park has been made a playfield for boys and girls. A swimming pool and similar equipment is concentrated nearby. The area devoted to active recreation is a distinct feature of the park. Adjoining is an area which is planted with trees and which has been left naturalistic in character. The older folks who desire a cool and shady retreat may find genuine pleasure in the park area where they will be undisturbed by playground activities. Around the

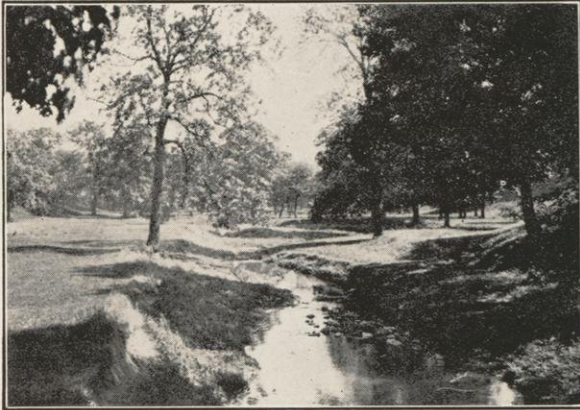


A view in Lincoln Park—one of the intensively used park areas of the city—an almost ideal neighborhood park.

exterior edge of the park is a planting strip to preserve its attractions for residents across the street. In the center it is proposed eventually

to erect a community building in which may be held the social and recreational activities of the neighborhood. This park is not as large as it should be to bear all these interests, but it is the only available recreation space serving the district.

Kenosha has several other parks similar to Columbus. Lincoln Park has been designed



The ravine in Washington Park.

with much the same regard for service, and when its improvement is finally completed will be a recreation area of unquestionable usefulness. The same may be said of Sheridan Park, Simmons Playground and Washington Park. The latter should be extended to the present golf course so that all these areas may

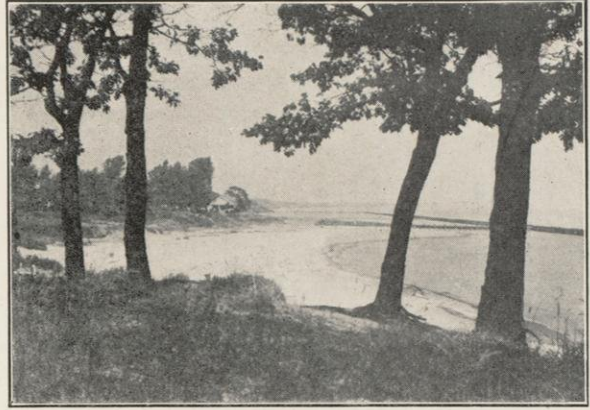


Natural park area west of Washington Park which should be public property.

function together. This proposal is shown on Plate Number 22.

One primary feature of the Kenosha Park system obviously should be the lake front parks. The city has reserved all too few wa-

terside areas. Simmons Playground will be eventually a very useful lake park. Eichelmann Park, when completely filled, will also render valuable service to the central section of the city. In addition to these, as Plate Number 22 shows, the city should acquire larger areas, both north and south of the city. The sites most desirable are not likely to be



A view of the future lakeside park area, north of the harbor.

available a few years hence. If Kenosha wishes to secure lake front parks where they will be of value, it must act quickly. No better use of the city's borrowing power can be conceived than that of saving bits of the lake shore for all Kenosha citizens for all time.

Plate No. 22 shows the distribution of



The shore line north of Kenosha Beach. The north park system will extend for several miles north of this point.

population in Kenosha, and the disposition of existing neighborhood park areas. An examination of this plate will show that while a large proportion of the population is now within convenient reach of either developed or

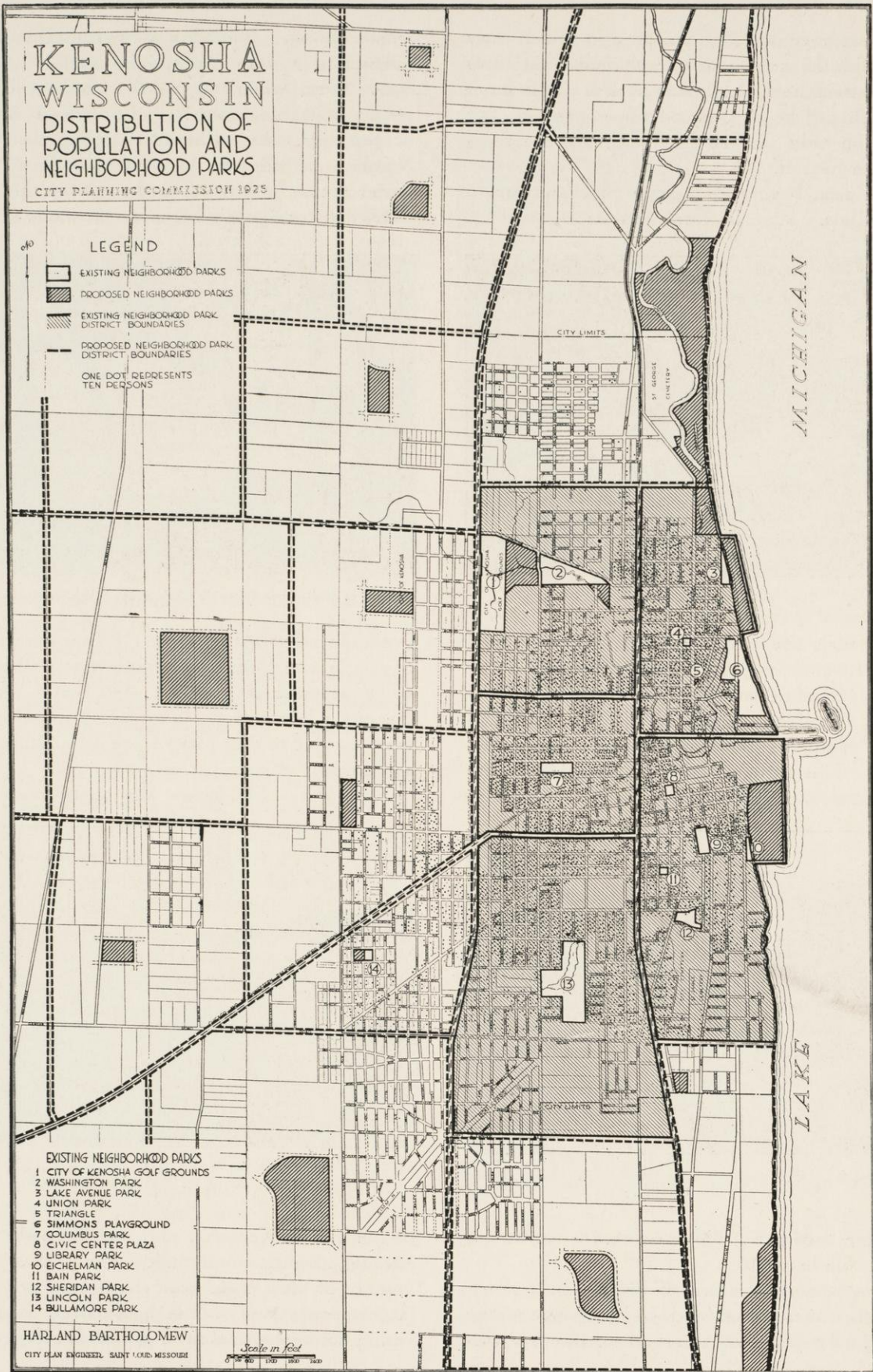


Plate 22.

undeveloped neighborhood parks, there are other large and rapidly growing sections of the city which have no such facilities whatever. It should be the aim of those in charge of park development to correct the city's present deficiencies by the purchase of neighborhood park sites in the district noted on Plate Number 22, particularly those immediately west of the North Shore. In outlying sections growth should be anticipated by selecting neighborhood park areas well in advance of residential development.

Large Parks: Large parks have a function in the recreation system different from both neighborhood parks and small parks. The importance of size in such parks cannot be over-emphasized. They should be large enough, despite the improvements which come with city growth, to retain a purely naturalistic character. More and more are contacts with nature necessary to city dwellers. These large areas, preferably connected by a chain of pleasure drives, should offer wholesome retreat from the noisy, oppressive city. They should embrace and preserve for future populous urban centers all types of native scenery. Woods, hills, lakes and the valleys of streams naturally suggest themselves as large park sites.

It is particularly necessary for Kenosha because it is growing rapidly and bears such a peculiar relationship to Chicago and Milwaukee, to make further reservations of large park sites. In the development of this phase of its recreation system, it is better for the city to err on the side of over-generosity, to secure parks that seem too large, rather than to secure areas too small. It is possible only in genuinely large parks to preserve that naturalistic character which constitutes the primary attraction of these parks.

Kenosha has no areas which may be classified as large parks. The golf course is in a sense a park of this type, but as used has little value to people who do not play golf. In the course of time this park will probably be consolidated with Washington Park and function as a neighborhood recreation area. Golf courses should be in parks of several hundred acres in extent.

The city of Kenosha cannot always be satisfied with the few parks possessed at present.

Sites for new ones outside the city should be sought and favorable prices for specific areas should be called forth by consideration of other sites nearby. Broad plans for surrounding the city with a system of parks should be constantly before the Park Department. The primary aim should be to acquire the property while it is available. Improvements can come later.

Plate Number 23 is included to show the possibilities and form of a complete system of large parks. This scheme is based upon the topography of the city and its environs. It takes account of probable tendencies of growth. It is drawn with a view toward equipping the city with an adequate number of recreation grounds of this sort, distributed and arranged so as to render the largest possible service for the least cost.

The park areas marked have suggested themselves as desirable by reason of tree growth, natural ruggedness, relationship to one another, the possibilities of connecting parkways and boulevards and similar factors. The possibility of connecting up Milwaukee's 87-mile parkway has also been considered. No discussion of large parks and boulevards for Kenosha should omit reference to the regional planning problem of the Chicago district.

In considering large parks shown in Plate Number 23, it should be remembered that the essential purpose and use of parks has changed. The conception of park planning has likewise changed. Each unit of the large park system proposed should have a definite function. One should be a woodland park, wholly natural, an area full of delights for those who would lose the sights and sounds of the city. Another would be predominantly the animal park, a zoological garden worthy of a large and prosperous city. The zoo is certain to become objectionable in any small park and no plans should be made for the creation of a zoo in an unsuitable area.

In the system would also be a floral park, where green houses and flower displays surpass in interest every other feature. There might also be a golf park; or a water park featuring fountains, pools, lakes and water gardens; or a botanical park; an arboretum; perhaps even a municipal amusement park,

with well regulated concessions the chief attraction. Each area, if the system were well planned, would have special attractions and interests. Going to one park would not be like going to every other one. The citizens of Kenosha would make greater use of these outlying reservations as a consequence of this diversification.

Pleasure Drives: In the development of the recreation facilities of the future city, the aim should be to bring all features into a harmonious, connected system. There should be traffic ways, bearing something of the character of the parks themselves, by which the outlying recreation grounds might be approached.

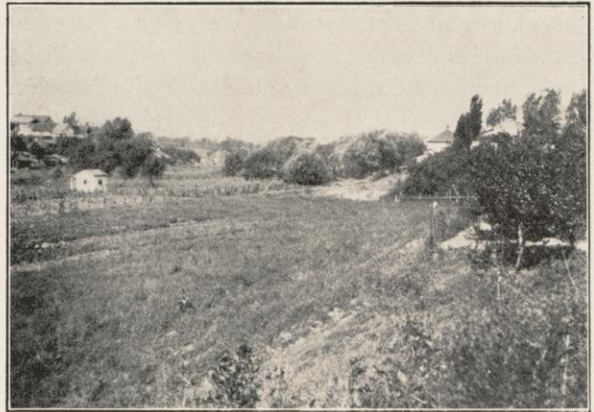
Pleasure drives are no longer to be considered expensive luxuries in the city. The comfortable, smooth-riding automobile has become a pleasure-giving device of great importance. Its use is constantly being extended. Definite routes over which such vehicles may move are urgent needs in the modern city.

To be essentially what the name implies, pleasure drives must afford the user distinct pleasurable sensations. The views ahead and alongside ought to be of a higher order than those found on ordinary streets. Pavements should facilitate smooth, comfortable driving. These thoroughfares, moreover, should have width and continuity, both for traffic carrying purposes and a dignified, impressive appearance.

It is manifest that when pleasure drives are not planned beforehand and laid out as successive portions of the city are platted, the possibility of securing the distinctive characteristics noted above is considerably lessened. Kenosha has had no experience in this line. The city possesses no genuine boulevard. No wide protected natural parkways have been developed. Few existing streets would now lend themselves to boulevard treatment. They are narrow; poles and wires stand where trees should grow; houses are placed forward on lots.

If a system of connecting pleasure drives can be anticipated in the platting of land they can be made practically to pay for themselves. Kenosha should be able to encircle the present city with a chain of beautiful parkways and

boulevards. The streams and water courses which surround the city invite such treatment. Subdivisions here and there will often include



Pike Creek valley which is practically waste space in the heart of the city, but which could be made an asset to the surrounding property by the development of a parkway through it.

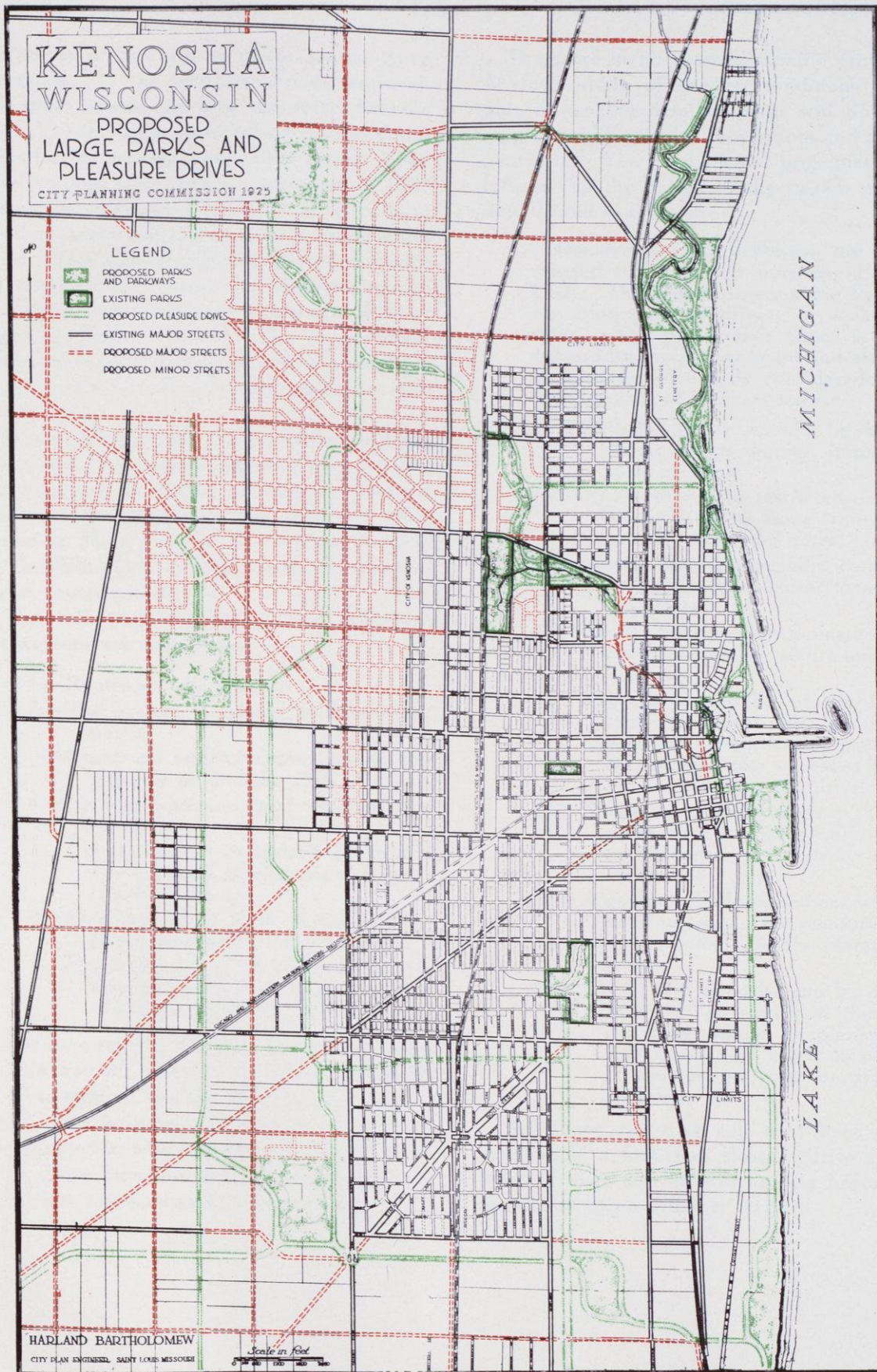
stretches of boulevard-like streets. The city by anticipating planning can harmonize these efforts. The formula is as follows:

- (1) A continuous pleasure route should be laid out through territory at present unplatted or subject to replatting or modifications.
- (2) This route should be located so as to prove advantageous to the property through which it passes; the city's interest in the scheme as a whole can be adjusted to this requirement.

Specifically the above means:

- (a) Utilization of land which might prove of little value for home streets, (b) variation of width and direction, if need be, to permit platting of lots and streets so as to take advantage of the drive system, (c) providing convenient access to larger parks, (d) wherever possible making pleasure drives serve more utilitarian purposes also; such as providing quick approach to city, etc.
- (3) Out of civic interest, supported incidentally by proof of the influence of such a system upon their property, the realtors affected by the proposed pleasure drive route should be willing to incorporate their share of it in their platting.

Needless to say, the willingness of realtors to accept this scheme will depend upon (1)



HARLAND BARTHOLOMEW
 CITY PLAN ENGINEER, SAINT LOUIS, MISSOURI

Scale in Feet
 0 200 400 600 800

Plate 23.

the ability of the city to assure continuity to the route, (2) the selection of a right-of-way line which houses can face and derive benefits from, (3) the preparation of satisfactory detail plans for the improvement of the system. Isolated sections of a pleasure route are of little value; the city must proceed in good faith to see the scheme completed, once it promulgates plans. This route should take precedence over all except major streets in determining the frontage of lots; no homes should turn sides or backs on pleasure drives. The drive should not be monotonous; there should be a variation in the treatment wherever topographic conditions permit.

In accordance with the principles outlined above there has been prepared a plan for giving Kenosha a system of modern pleasure drives. The details of this plan are fully shown in Plate Number 23. Plate Number 24 is illustrative of the types of pleasure drives contemplated.

The following features of the proposed outer system are to be noted.

- 1—Routes are continuous.
- 2—The system is related to lake front parks.
- 3—There are arterial approaches to the city and around the city.
- 4—Existing highways form a part of the system.
- 5—The system is composed of formal and informal boulevards and naturalistic parkways.
- 6—Parkways have been chosen chiefly along the lines of water courses.
- 7—Practically every section indicated is arranged to contribute to the value of property through which it passes.

The new lengths of drive are found chiefly in land not yet platted. In the development of these sections lies the city's greatest opportunity. By enlisting the support of the real estate interests, who will plat the land through which these lines run, the city would secure a boulevard system of great attractiveness.

These are in no sense invariable proposals. A closer study of existing conditions at the time of making detailed plans will doubtless suggest modification of proportions and general treatment. The fundamental principles to be followed in the design of the system may be summarized as follows:

Boulevards and parkways are to be created for a distinct purpose—PLEASURE. This pleasure may come from living upon them or driving or walking on them. The pleasurable effect is to be secured by special treatment and attention to matters not usually considered in the development of ordinary streets.

- (1) Pleasure drives should be wide—which means dignity, impressiveness, comfort.
- (2) Traffic should be restricted—to preserve the street scene from incongruous, disturbing notes.
- (3) Paving should especially contribute to the pleasure of using these thoroughfares.
- (4) Private building development should be regulated—to secure unity and harmony.
- (5) Planting should be of the highest type, for upon this one feature depends a considerable portion of the effectiveness of either formal or informal pleasure drives.
- (6) Special care should be given the lawn areas and planting and proper maintenance of roadway should be assured.
- (7) A generous building setback will add spaciousness to the pleasure drive and permit a wider planting of trees.
- (8) Car lines if need be can be accommodated on streets of this type, but they should be planned for and isolated as much as possible in wide central strips bordered by planting.

All these measures will contribute to the creation of a first-class pleasure drive system. Most of them cost little or nothing beyond the regulation of an ordinary street.

SCALE OF CROSS SECTIONS
 10 5 0 5 10 15 20 25 30'
 ONE INCH EQUALS TEN FEET.
 1925

SUGGESTED CROSS SECTIONS OF PLEASURE DRIVES
 KENOSHA - WISCONSIN

HARLAND BARTHOLOMEW
 CITY PLAN ENGINEER
 SAINT LOUIS MISSOURI

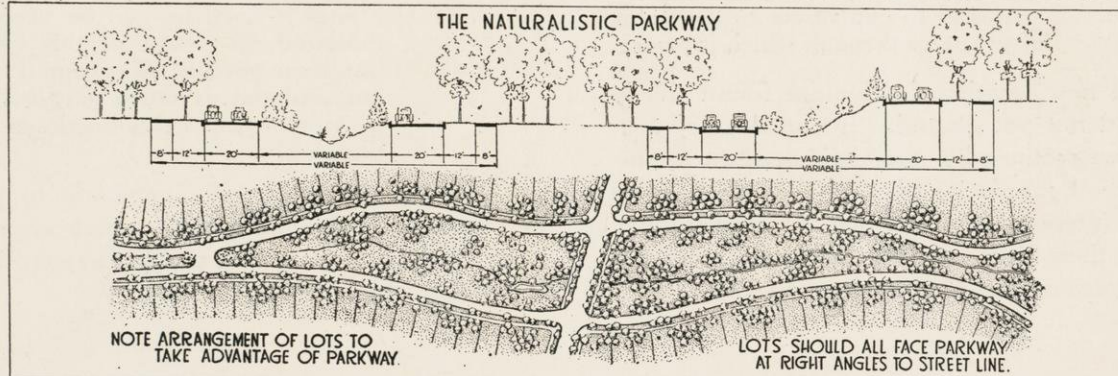
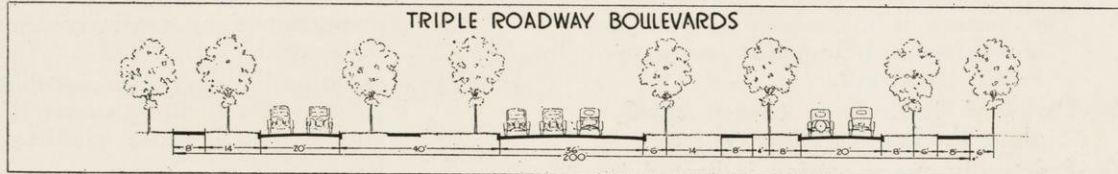
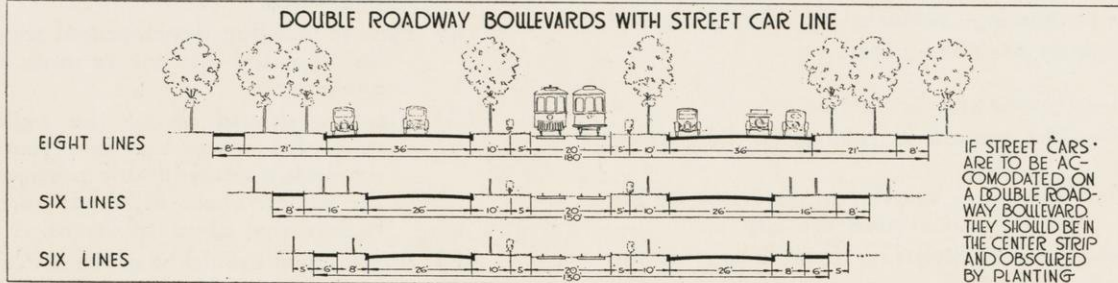
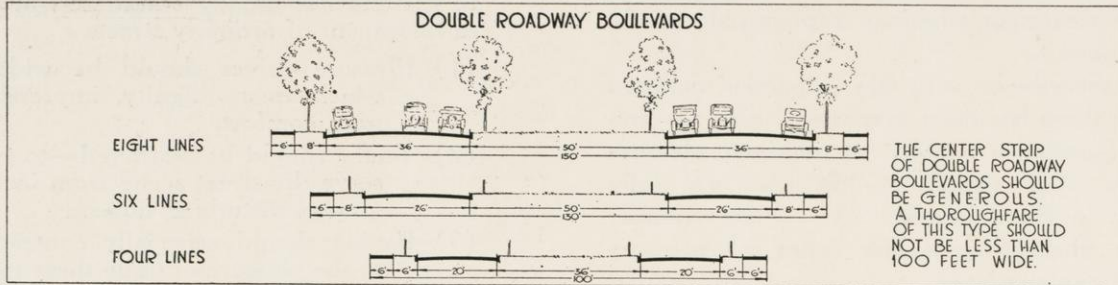
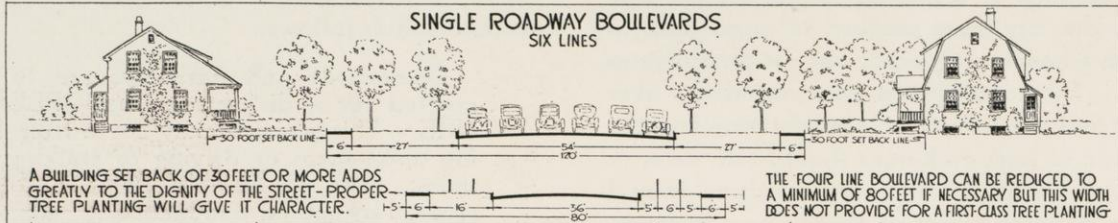
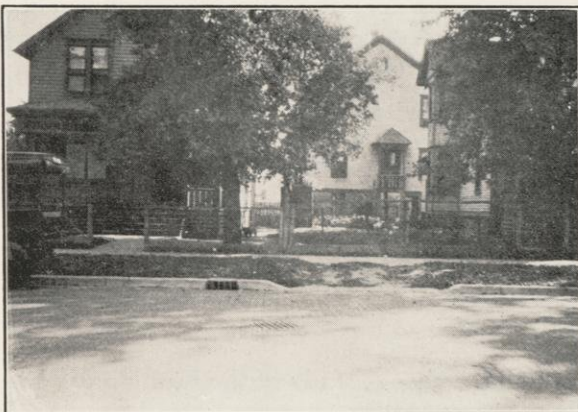


Plate 24.

ZONING

The zoning ordinance in Kenosha has become so well established since its adoption more than a year ago, that its benefits and economic value are too well appreciated to warrant here a prolonged discussion of the purposes and merits of regulating building development. The need of community regulations in the interest of public health, safety and general welfare has long been manifested by our health, fire, housing and building laws. Obviously these laws were designed to insure buildings of safe construction, to improve the sanitary conditions and secure sufficient light and air in buildings, and while the value of such regulations in improving living and business conditions has been incalculable, the continued growth of our urban centers has necessitated an amplification of these community powers.

It became evident in this country more than ten years ago that if cities were to avoid the tremendous economic waste due to the invasion of inappropriate buildings in well-established districts, the continual shifting of business districts and the uncertainty as to the proper use of old as well as new districts, it was not only necessary to regulate the construction of buildings, but their use and size as well. Every city, large or small, has striking examples of



Rear lot dwelling—a form of crowding no longer permitted.

unregulated growth. Stores and apartments have located in residence districts, factories next to schools and hospitals, and other in-

stances exist where buildings have exceeded a reasonable height limit or have covered the entire area of lots, making little or no provision



The lack of consideration shown home owners when a store invades a residence district—now prevented by the zone ordinance.

for their own light and air. It is these conditions that have brought about the new community regulation known as zoning, which regulates the use, height and area of all new buildings and the alteration of existing structures.

In less than ten years this new zoning movement has spread throughout the country until on January 1, 1925, there were three hundred and twenty (320) communities in the United States having zoning ordinances in effect, and these varied in size from a population of 131 to approximately 6,000,000. The total aggregate population of all the zoned communities exceeds 24,000,000. More than thirty (30) states have enacted state laws authorizing cities to do zoning, and in addition to those ordinances already in effect, numerous other cities have ordinances in the course of preparation.

Zoning in Kenosha

The first step necessary toward the adoption of a comprehensive zoning ordinance is the acquisition of proper legislative authority from the state legislature. Wisconsin has always been one of the leading states in enacting city planning legislation, and at the time Kenosha

undertook comprehensive city planning, the city found that it was vested with sufficient power to adopt a comprehensive zoning ordinance by virtue of an act passed by the legislature in 1917.

Before considering the study of zoning the plan commission realized that it was first necessary to evolve a systematic street and transportation plan. Preliminary reports on Major Streets and Transportation having been prepared and tentatively approved, the plan commission then took up the matter of zoning. The collecting of complete information regarding existing building development and tendencies of future growth was necessarily the first step. Comprehensive field surveys were necessary to ascertain the character of every parcel of property in the city, and this data was recorded in a series of five study maps as described below:

Study Maps

Use Map—Illustrates by various color indications the use of every piece of property within the city. Residential uses were differentiated as to single family and two-family dwellings and apartment houses. Distinction was made between commercial buildings, industries, railroad property, public and semi-public property, parks, cemeteries, and city property. This map, as completed, represents the existing use of every piece of property within the city of Kenosha as of February 1, 1923.

Height Map—Upon this map was shown the variations in height of all existing buildings. Three different classifications were made, buildings of two and one-half (2½) stories or less, three (3) stories, and those from four (4) to six (6) stories.

Density Map—The existing density of population was shown graphically by determining the lot area per family. Seven different classifications were used, indicating areas having less than 625 square feet per family, 625 to 1249, 1250 to 1999, 2000 to 2499, 2500 to 3999, 4000 to 4999, and 5000 square feet or more.

Lot Width Map—Variations of lot widths of all occupied property were also indicated by different colors, and were classified according

to lots 25 feet or less in width, those from 26 to 29, 30 to 35, 36 to 40, 41 to 49, and those 50 feet or more in width.

Industrial Map—This was prepared to determine the nature of the industries in Kenosha, i. e., those which, under the zone ordinance, would come under the classification of light and heavy industries. Those that are objectionable by reason of smoke, dust, odor or noise are confined to the heavy industrial districts, and all other types of manufacturing are permitted in the light industrial district.

Existing Development Prior to Zoning Ordinance

USE—

Industry—The Use Study Map brought out the fact that Kenosha had four well-established industrial districts. The group on the west in the vicinity of Prairie Avenue and the Chicago, North Shore Electric includes the Nash Motors, Allen "A", Cooper Underwear and Vincent McCall Companies. A second group on the east, which is in close proximity to the central business district, includes the Simmons Company, N. R. Allens Sons Company, Hannahs Manufacturing Company, Bain Wagon Works and others. South of Elizabeth, just west of the C. & N. W. R. R., a third group embraces among others the American Brass, Hall Lamp, and Frost Manufacturing Companies. Along the C. & N. W. R. R., north of Fairfield, a fourth group is situated and includes the MacWhyte Company, Winters Motor Company and the Holm's Manufacturing Company. Aside from the enterprises located in these industrial districts numerous small industries have located in various parts of the city, principally in the central district and along the railroads. As could be expected, however, there were certain small industries located in districts which were essentially residential or commercial.

Commerce—A study of the location of commercial enterprises illustrated clearly the need of some measure of control to prevent stores from scattering promiscuously throughout the city. Few residential areas have escaped the invasion of the sporadic store. While the greater number of retail enterprises were logic-

KENOSHA WISCONSIN

CITY PLANNING COMMISSION
1923












DISTRICT MAP

SHOWING DISTRICTS FOR USE
HEIGHT & AREA REGULATIONS

HARLAND BARTHOLOMEW
CITY PLAN ENGINEER
ST. LOUIS - MO.

0 600' 1200'
SCALE

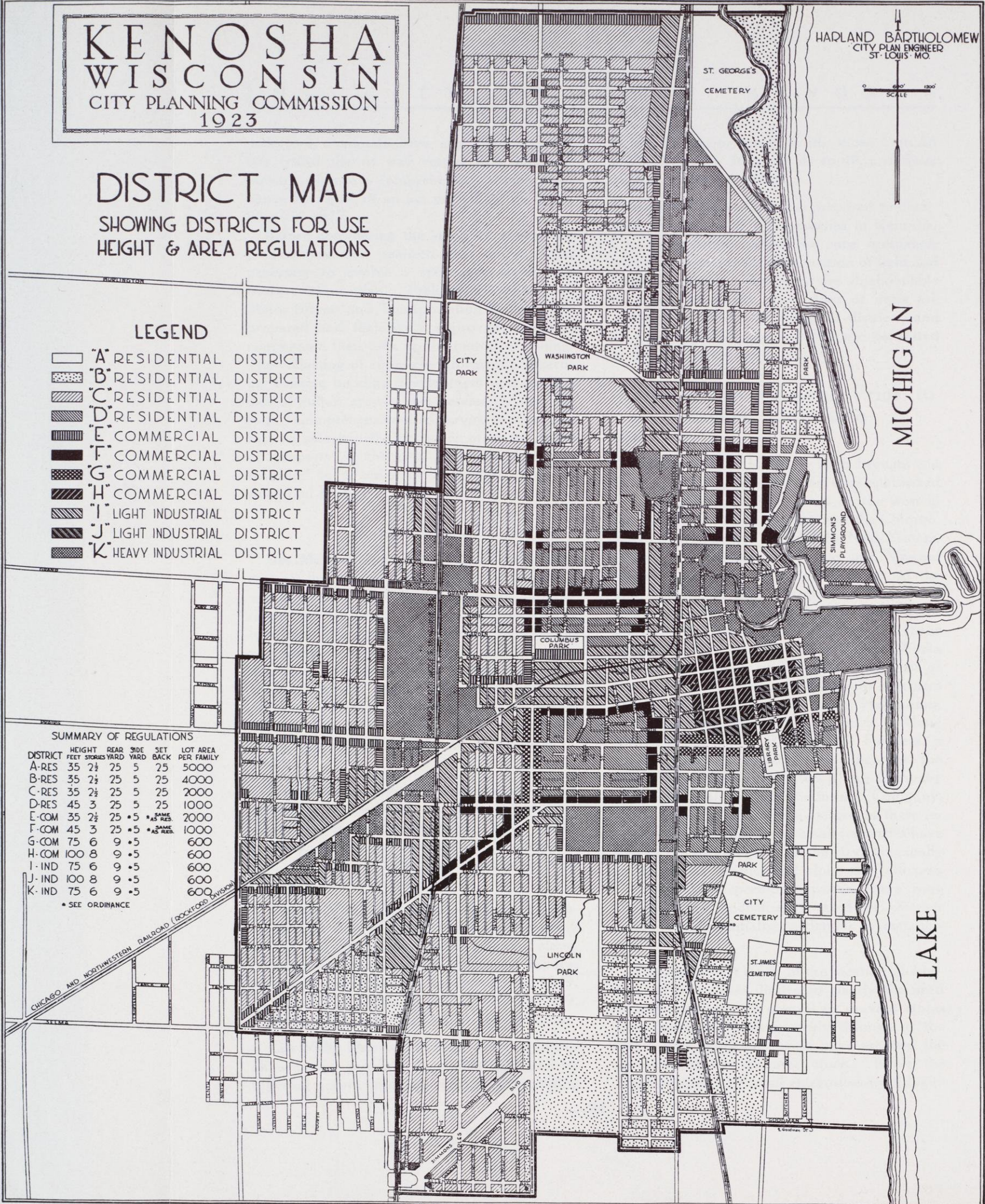
LEGEND

-  A RESIDENTIAL DISTRICT
-  B RESIDENTIAL DISTRICT
-  C RESIDENTIAL DISTRICT
-  D RESIDENTIAL DISTRICT
-  E COMMERCIAL DISTRICT
-  F COMMERCIAL DISTRICT
-  G COMMERCIAL DISTRICT
-  H COMMERCIAL DISTRICT
-  I LIGHT INDUSTRIAL DISTRICT
-  J LIGHT INDUSTRIAL DISTRICT
-  K HEAVY INDUSTRIAL DISTRICT

SUMMARY OF REGULATIONS

DISTRICT	HEIGHT FEET	REAR YARD	SIDE YARD	SET BACK	LOT AREA PER FAMILY	
A-RES	35	2 1/2	25	5	25	5000
B-RES	35	2 1/2	25	5	25	4000
C-RES	35	2 1/2	25	5	25	2000
D-RES	45	3	25	5	25	1000
E-COM	35	2 1/2	25	5	* SAME AS RES.	2000
F-COM	45	3	25	5	* SAME AS RES.	1000
G-COM	75	6	9	5		600
H-COM	100	8	9	5		600
I-IND	75	6	9	5		600
J-IND	100	8	9	5		600
K-IND	75	6	9	5		600

* SEE ORDINANCE



ally located along main thoroughfares, it will also be seen from the Use Study Map that some are located on the corners and even in the middle of blocks in districts which should remain residential property and free from the noises and traffic common to commercial enterprises.

Dwellings—Kenosha is essentially a city of one and two-family homes, with but few apartment houses, and the latter, generally speaking, are close in. The larger homes are situated in that area between Park Avenue and Lake Michigan, south of Deming Street. With the exception of those residential areas along Lake Michigan north of Broad Street; north of Washington Park; east of City Park; between Salem, Selma and Bain Avenues; south of Symmonds Street, between Howland and Park Avenues; and between Park Avenue and Lake Michigan south of Deming Street; all other residential areas have either already been partially occupied by two-family homes or are well situated for two-family and apartment house development.

Height—The height map disclosed that there were no buildings exceeding six (6) stories in height. There were twenty-three (23) properties with buildings between four (4) and six (6) stories, inclusive, in height; forty-six (46) three stories, and the remainder two and one-half (2½) stories or less.

Density—The majority of buildings had lot areas per family of 5000 square feet or more, though there were a number ranging from 2500 to 3999 and 4000 to 4999, rather generally distributed throughout the city. Fortunately, however, there were no densities less than 625 square feet per family, and only a few in the classification ranging from 625 to 1249.

Lot Widths—Though there was considerable variation in lot widths about the city the greater number exceeded 40 feet or more. Some lots as narrow as 25 feet are scattered about the city, but fortunately these are few.

Preparation of District Map

The study maps as outlined above illustrated graphically the building development of the

entire city. From this information, together with numerous field inspections, the tentative draft of the district map and ordinance was prepared. Careful consideration was at all times given to existing conditions, and insofar as possible and practicable present uses were perpetuated. The large industrial districts were properly taken care of and provision made for future expansion. Kenosha is somewhat peculiar in that it has but one steam railroad (C. & N. W.) and practically all the property abutting this line is either already occupied or subdivided into small parcels of land. The best and, in fact, the only prospects for additional flat land next to the railroad is north of the present city limits. Here lies a vast area of land admirably situated for industrial purposes, but cannot be zoned for that purpose since it is beyond the corporate limits.

Commercial districts have been allocated along the principal thoroughfares or at their intersection in the outlying districts. Rather than designate solid commerce along all major streets, which would be considerably greater than the need and consequently result in blighted areas, local commercial centers have been established at the intersection of major streets, approximately every one-half mile, so that all residential areas will be within one-quarter mile of a local store group. Such provision for local stores is essential to public conveniences. Where store centers had already been established off the main thoroughfares and were well situated in relation to the districts they served, these were accepted in lieu of creating new districts.

Residential Districts—While the residential development is predominantly single family, there had been a marked tendency toward two-family dwellings, and as will be seen from the District Map defining the several districts, the larger part of the city's area has been zoned so as to permit of this latter type of dwelling. Certain areas, however, because of their present use, have been designated as single family districts while other small undeveloped areas have been set aside for this purpose. A zoning ordinance to be reasonable should insofar as possible provide both kinds of residential areas in various sections of the city so that one might select his place of residence in any part of the

city and locate in a district in keeping with the residence he desires to erect. Such is the arrangement of Residential Districts in Kenosha. Then, too, considerable area has been allotted to apartment house development in the areas close in where they properly belong. The apartment districts are conveniently located with reference to the business district and embrace those areas which, because of their proximity to the city's center, will continue to rise in value and consequently a more intensive residential use should be permitted.

Non-Conforming Uses—Subsequent to the preparation of the "Use Map" showing existing conditions, and the "District Map," designating the future use districts, the two maps were checked one with the other to ascertain the character and location of those uses not in conformity with the zoning ordinance. These uses were recorded on a "Non-Conforming Use Map" which served as a check against the possibility of an error in overlooking well established districts. After a study of this map all existing uses were taken care of insofar as it was reasonable and consistent with good zoning practice.

HEIGHT AND AREA RESTRICTIONS

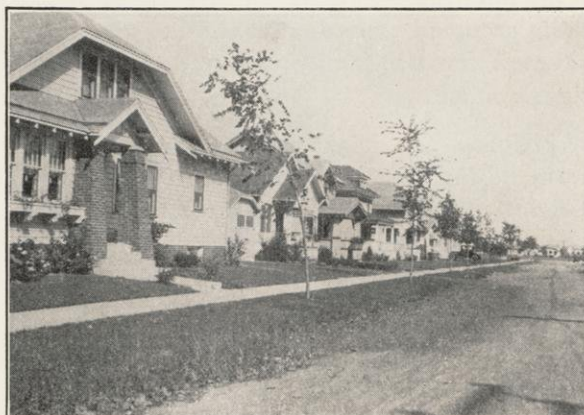
Height—The Wisconsin legislature passed a law in 1923 limiting the maximum height of buildings in cities of the first class to ten stories, one hundred twenty-five (125) feet, and in the second class cities to eight stories, one hundred (100) feet. This law was later sustained in the Wisconsin Supreme Court and consequently automatically disposed of the height limit question so far as the city was concerned. Kenosha being a second class city, the maximum height is limited to eight stories, or one hundred (100) feet, in the central business district. Beyond the central area industry is limited to six (6) stories, or 75 feet; commercial districts vary in height from two and one-half (2½) stories, 35 feet, to eight stories, 100 feet, and residence from two and one-half stories, 35 feet, to three stories, 45 feet.

Rear Yard—To insure sufficient open space on residential lots a minimum rear yard of twenty-five (25) feet is required. This will provide a space of at least 50 feet between the rears of buildings, which is none too great, par-

ticularly since open porches, accessory buildings and garages are permitted to locate in rear yards. Furthermore, it has been customary in Kenosha to provide rear yards of twenty-five (25) feet or greater in depth.

Side Yards—Two side yards of five (5) feet are required in residence districts so as to secure at least 10 feet of open space between buildings. This regulation can easily be complied with on lots of forty (40) feet or more, which the city has set as a minimum width for future lots. Existing narrow lots must of necessity be accepted and the ordinance specifically provides that lots of less than forty (40) feet and of record at the time of the passage of the ordinance shall provide two side yards three feet in width.

Setback—A nominal setback of twenty-five (25) feet is required in residential districts



The orderly effect of a uniform building line.

except where setbacks of greater or less depth have been established by existing buildings, in which case such existing setback shall be maintained. The ordinance also provides that where local commercial centers are located in the same block with residences, the setback of the residential district shall apply to the commercial district. This obviously is to prevent corner stores from protruding out beyond the residences and shutting out the light and air, which has a decided reflection in depreciated property values. It is admitted that for commercial purposes, the front of the lot is most valuable because of convenience and advertising advantages. For this reason no setback is required on streets zoned commercial through-

out between two intersecting streets. But for local stores which are to serve the immediate district, the advertising value and convenience is nil compared with the benefits accruing to surrounding property by keeping the stores in line with the residences.

The application of the setback regulation on a reversed corner lot, i. e., a corner lot facing

permit the corner building to project out to the property line, or nearly so. In justice to both parties the Kenosha Planning Commission adopted a regulation requiring the building on the reversed corner lot to observe on the street side one-half the setback of the residences in the rear, and further that the accessory building on the corner lot shall insofar as possible be kept back in line with the setback in the rear. See Plate Number 26, illustrating this regulation.

Another regulation that has been discussed frequently and for which agitation is steadily increasing is that of "Vision Clearance," or keeping the buildings back from the corner at street intersections. This increases the range of vision of approaching vehicles and consequently facilitates traffic movements and reduces accidents. Vision Clearance has been attempted in some zoning ordinances as applying only to fences and shrubbery in outlying districts, but so far as it is known Kenosha is the first city to apply this principle to buildings at all intersections. This regulation is now being fostered in the principles of highway design, and while it would be somewhat impracticable to attempt to apply it in certain sections of the larger cities it should, nevertheless, be possible to

obtain at principal street intersections in the outlying districts. Plate Number 27 illustrates the advantages to traffic of such an arrangement.

Publicity and Hearings

The state law provides, and properly so, that public hearings shall be held on the pre-

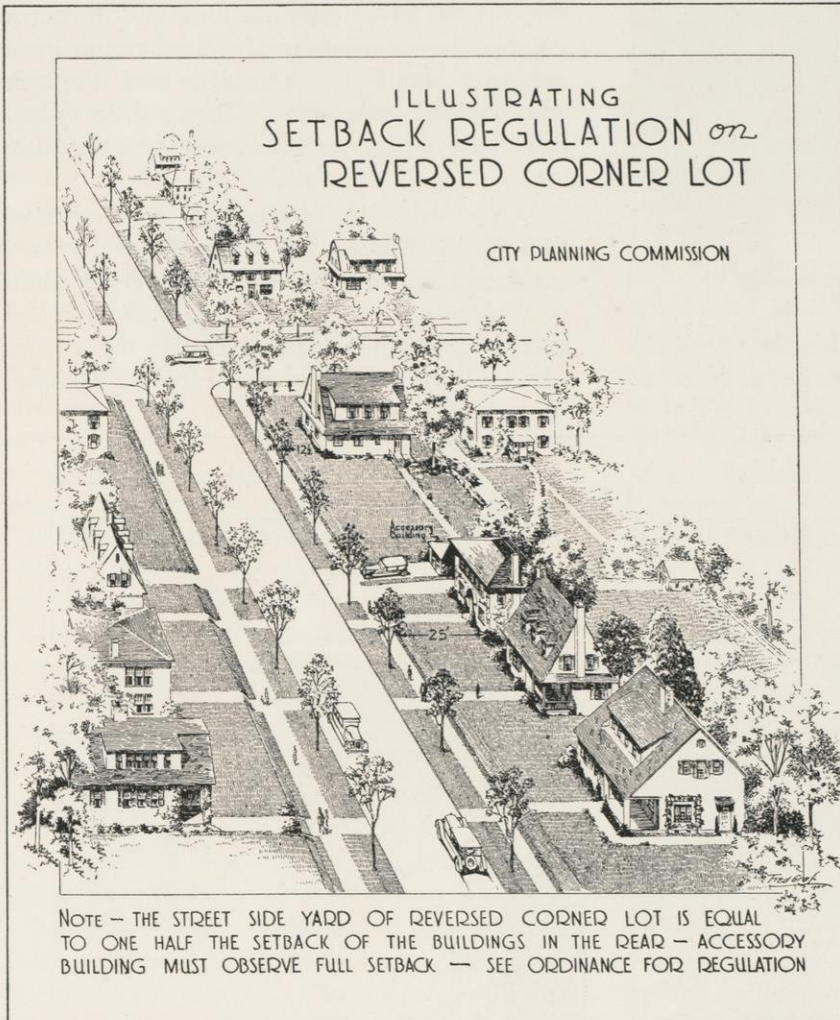
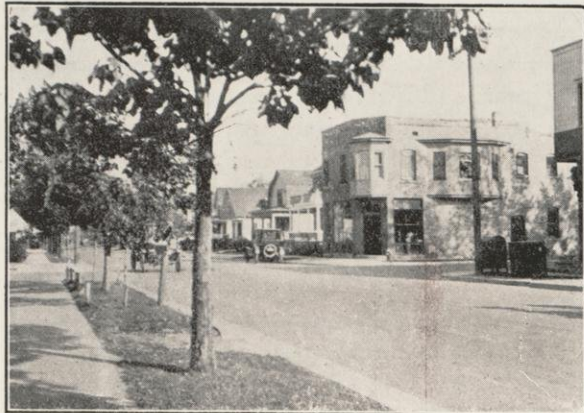


Plate 26.

an intersecting street, is a matter that has admittedly been difficult. To require a full setback of say twenty-five (25) or thirty (30) feet on the side of a reversed corner lot, together with the side yard required on the opposite side of the building, would deprive an owner of the use of considerable frontage. Conversely, it would be unjust to the property owners in the rear of a reversed corner lot to

liminary zone ordinance in order that property owners be given an opportunity to offer suggestions and file remonstrances before the final

misunderstanding of the purposes and application of the ordinance it was necessary to "sell" the ordinance to the public. After the ordinance was tentatively approved by the plan commission and published in preliminary form considerable publicity was given to it in the way of explaining the purpose of such legislation and its application in Kenosha. Addresses were made and the ordinance presented before the various civic organizations and numerous neighborhood meetings. As a result of an extensive publicity campaign and the plan commission's efforts to satisfy public opinion little opposition was encountered at the hearings.



Occasionally stores were built with corners cut off, but this is now required by the zone ordinance in the interest of public safety.

Many valuable suggestions were obtained through discussions and all requests that were within reason and consistent with good zoning were granted. The ordinance was then submitted by the plan commission to the council, who in turn held additional public hearings,

adoption of the ordinance. Hence to eliminate numerous complaints resulting from a

OLD TREATMENT OF STREET INTERSECTIONS

BUILDINGS ERECTED TO STREET LINES AT CORNERS RESULTING IN INADEQUATE RANGE OF VISION OF APPROACHING TRAFFIC—SMALL CURB RADII—AND INTERFERENCE OF VEHICULAR & STREET CAR MOVEMENTS IN MAKING TURNS

NEW TREATMENT OF STREET INTERSECTIONS

BUILDINGS SETBACK FROM THE CORNERS THUS INCREASING RANGE OF VISION—CURB RADII—AND ELIMINATING INTERFERENCE OF VEHICULAR & STREET CAR TRAFFIC AT THE TURNS—SEE VISION CLEARANCE IN ORDINANCE

CITY PLANNING COMMISSION

after which the ordinance was put in final form and passed by the city council, January 7, 1924. It became effective on the 18th day of the same month.

Operation of Ordinance Since Adoption

It is a common expression among individuals and organizations that they favor the "principles" of zoning if properly applied. The best test of the proper application of zoning provisions in any city is the experience after at least one year's operation. For approximately one year after the ordinance was in effect in Kenosha, January 18 to December 12, 1924, permits were issued for 874 new buildings, aggregating in cost approximately \$4,252,091. During this period no changes were made in the districts as originally adopted, and of the permits issued but fifty-nine (59) cases came before the Board of Zoning Appeals. A chart prepared from the records compiled by the Chief of the Inspection Department is included herewith showing in general the nature of each appeal and its disposition.

Aside from the power of adjustment vested in the Board of Appeals, the ordinance further provides for amendments by the city council so that it may be modified to meet changing conditions. Thus the ordinance insures protection and at the same time is sufficiently elastic to permit of amending so that it will not become restrictive as conditions change. No zoning ordinance could be made practicable or legal that did not provide for amendments, as cities must grow, and growth implies change; on the other hand, promiscuous changes should not be permitted lest the stability of the zoning ordinance be destroyed. The ordinance, therefore, provides certain precautionary measures designed to prevent unwarranted changes.

Plate Number 28 was prepared to show how all new buildings erected from February, 1923, to August, 1924, have been distributed in an orderly manner in accordance with the district plan. Differentiation has been made between residence and business.

Judging from more than one and one-half years' experience it is evident that the zoning idea has met with great favor in Kenosha. This is partly attributed to the fact that the

ordinance has been in effect sufficiently long for property owners to appreciate the benefits of protection and the stabilization of property values.

Legal Status of Zoning in Wisconsin

The Wisconsin Supreme Court has already gone on record in favor of the reasonable application of zoning regulations, as is apparent from two decisions handed down by that court. One case was a mandamus suit to compel the city of Milwaukee to issue a permit for the expansion of a non-conforming use; State ex rel. Charles Carter, Appellant, vs. William D. Harper, Building Commissioner of the city of Milwaukee, Respondent. Prior to the adoption of the zoning ordinance in Milwaukee the appellant had erected a dairy and milk pasteurizing plant in a district which, under the zone ordinance, was zoned for residence. In 1921 the owner sought to expand his plant to take care of increased business but was denied a permit on the grounds that it was contrary to the zoning ordinance. The appellant charged that the ordinance was "unreasonable and oppressive, that it deprives him of the equal protection of the laws, and takes his property without due process of law and without just compensation."

The supreme court in handing down its decision made the following statement in the concluding paragraph of its opinion: "It is our conclusion that the ordinance is, in the respects here considered, a reasonable, valid and constitutional enactment. It is appreciated that there are other provisions of the ordinance, the validity of which may be the subject of future challenges. It is to be understood that no opinion is expressed with reference to any features of the ordinance except such as are herein treated. So far as the ordinance affects the rights of appellant, it fully authorizes the denial of a building permit, the issuance of which he seeks to coerce."

The other decision rendered by the Supreme Court pertained to the limitation of the heights of buildings. As previously stated the legislature passed a law limiting the height of buildings in all cities of the state to one hundred twenty (120) feet in first class cities and one

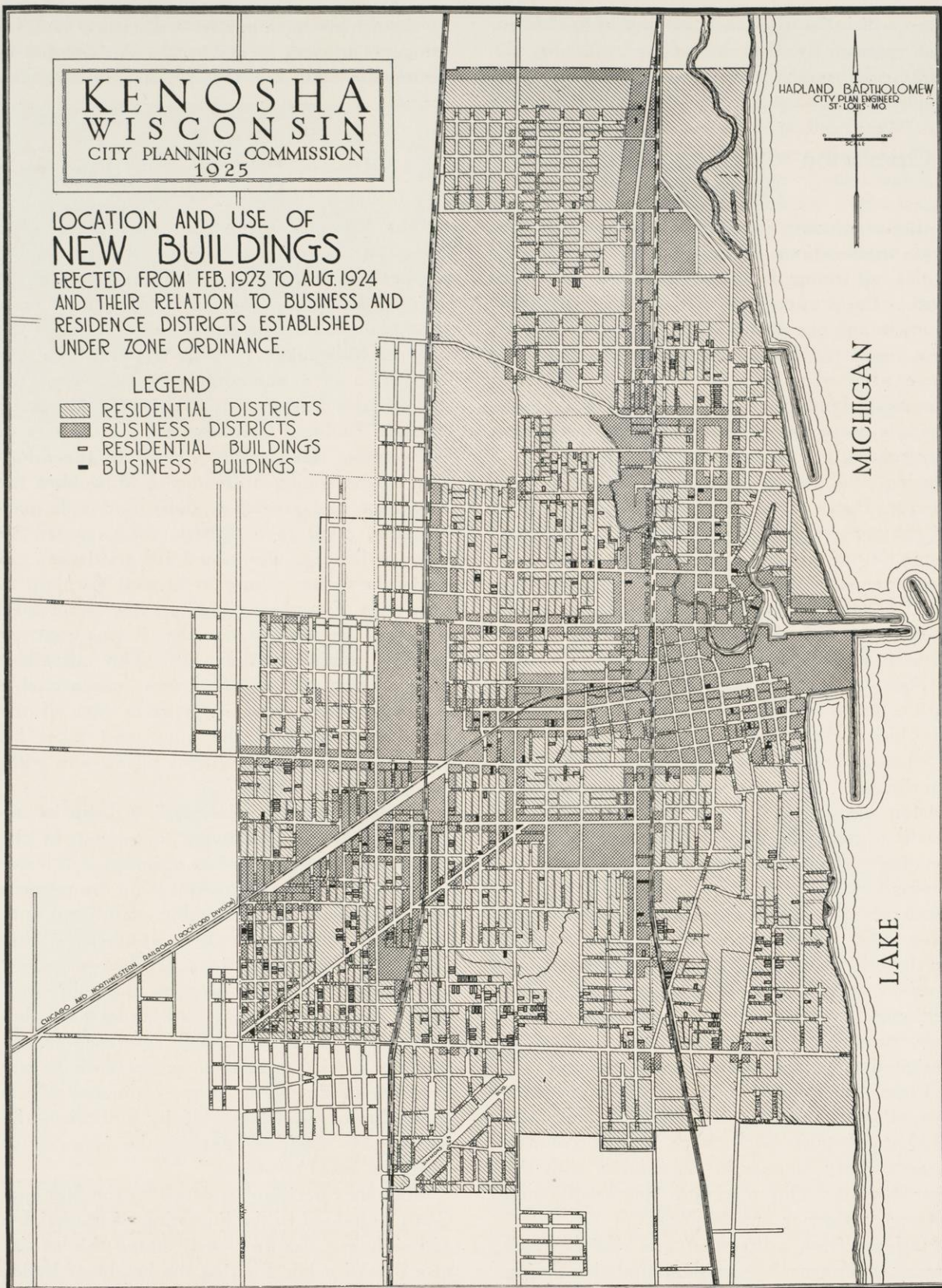


Plate 28

hundred (100) feet in second class cities. Three cases were before the court attacking the validity of this legislation. One, the Wisconsin Telephone Company, which sought to complete its building in Milwaukee (16 stories), 225 feet high; another the Hotel Wisconsin Realty Company, which had under construction a hotel in the city of Green Bay designed to be 100 feet in height, to which the defendant later decided to add another story, but made no application for a building permit until after the passage and publication of the height act. The third case was that of the Piper Brothers, who had secured a permit to erect and had plans prepared for a hotel in Madison 115 feet in height prior to the enactment of the height law.

The court ruled that since the Wisconsin Telephone Company had obtained a building permit for a sixteen-story building and had actually built a foundation for a structure of that height, all prior to the passage of the height law, that permission to complete the building should be granted.

In the case of the Hotel Wisconsin Realty Company, the court held that inasmuch as no application for permit had been made previous to the enactment of the law and that no expense had been incurred in anticipation of adding an additional story to the building, that the new law should apply in this instance.

The Piper Brothers case in Madison was similar to that of the Wisconsin Telephone Company in Milwaukee in that a permit had been secured and the owners had gone to considerable expense before the height law was passed, and as in the Telephone Company case, the court granted the Piper Brothers permission to complete their building.

That high buildings in densely populated areas are injurious to health and increase fire hazards, resulting in a menace to the safety of property and persons, is scarcely open to question. That the police power may be exerted to promote the public health and public safety is so well established that it is a truism in the law. Granted that the more scientific and satisfactory way of accomplishing this result, so far as high buildings in populous centers constitute a menace to public health and safety are concerned, is by means of the so-called zoning ordinances, it cannot be said that the legislature may not accomplish directly that

which it may do indirectly. If it has the power to authorize cities to enact regulations limiting the height of buildings, it cannot be satisfactorily maintained that it is without power to accomplish the same result by a direct act of the legislature. While the direct act of the legislature may not embody the best public policy, that is something with which we are not concerned. The question is, has the legislature the power to limit the height of buildings in populous centers? Upon this question we are in accord with those courts upholding the power. We therefore hold that the legislature has power to limit the height of buildings in populous centers of the state in promotion of the public health and safety and, perhaps, the convenience and general welfare of the people.

The beneficial effect the height law is having in the city of Milwaukee is expressed in the following article which recently appeared in the National Real Estate Journal, March 9, 1925:

"The Milwaukee Real Estate Board has again gone on record as being in favor of the 125-foot building height limit for the business district of Milwaukee, according to the Milwaukee Realtor. The matter of repeal of the building heights limitation has been under consideration in Milwaukee. The Board takes the stand that under the present law the downtown district is developing so well that there is plenty of room for those who want to improve their property and at the same time enjoy a reasonable yield from their investment. From a purely economic standpoint, it is felt that there is no great need for higher buildings in Milwaukee, and that as there is a healthy constructive development now under way, the change is not needed at this time."

The court decisions outlined above should be gratifying to Wisconsin cities now having zoning ordinances or contemplating their adoption. It should be borne in mind, however, that the courts will not uphold zoning ordinances unless they are based upon scientific premises and not merely established arbitrarily, as has been the case in a few cities in the past. If comprehensive studies are made of existing conditions and all regulations in the future are based upon present and expected growth, it is believed that the courts will continue to sustain zoning ordinances in the state of Wisconsin.

CIVIC ART

It is significant that one of the first phases of the Kenosha city plan to receive consideration was the city's appearance. The manner in which the civic art problem stimulated the preparation of a city plan and was solved as a first step in the city planning program has already been related. The people of Kenosha have given evidence in many different ways that they believe in making their city attractive. The popular support which the city plan has had thus far is but one proof of this.

It is the fundamental object of the city plan to make Kenosha attractive. Attractiveness will be created in two ways: by developing a more practical city on the one hand, and on the other a city that also pleases the eye. A well-planned Kenosha will favor an economical and efficient conduct of industry and business and provide more satisfactory living conditions. These will, undoubtedly, add to the attractiveness of the city but they alone will not suffice. And for Kenosha to show a sensible regard for appearances, will make it attractive in every sense of the word, and will draw people to it.

There is a value in a conservative program for the improvement of the city's appearance. The outlook in any city is not entirely unrelated to its commercial and industrial standing. The greater cities all value appearance. They realize that the creation of a favorable impression upon visitors is often a wise step toward securing a new factory or business establishment. They know also that civic pride develops when the city is well-dressed and that civic pride can be translated into contentment and satisfaction among those who live and work in it. Community good will in large measure is evoked by beautiful parks, clean, dignified, tree-bordered streets, trim light standards, well-designed school buildings and absence of poles, wires, street signs and bill boards and other disfigurements. The administrative officials of the city can do a great deal toward making Kenosha a better looking city. The mere publication of the fact that the municipality itself is in action toward

this end will bring a satisfying response from the people themselves.

An interest in matters of civic art need not mean extravagance, or even added expense, so far as the city is concerned. The chief requirement is that the city have definite policies and standards to apply to works that affect the municipal scene. These standards, moreover, must be selected with taste and discrimination. The city erects lights, traffic signals or street signs. Are these ugly or beautiful? Who shall say, since the city has no guide to follow in selecting them? The light standards on one street may be of praiseworthy design and on another depressingly ugly. Yet the latter may be the more costly. The city may permit overhanging signs of various sizes and shapes and shabby awnings and canopies on Main Street, and show cases obstructing the sidewalk. A prohibition of such structures would doubtless cost the taxpayers nothing, would save money for those doing business on the street, and would greatly aid in the creation of a favorable impression of the city. A general requirement that poles and wires be placed on rear lot lines would not add to the public expense, but would help utility companies to plan more orderly service lines and by leaving the streets free for tree growth would improve their appearance tremendously. It may be seen by these few examples that a program for the advancement of civic art need not become merely another means of entering the city treasury. It has been found elsewhere that money spent for better appearances, if spent wisely, is returned many times over every year.

The problem of Kenosha, however, is to discover a method by which the proper policies and standards may be adopted. In many of the larger cities it is customary for administrative officials to depend upon a municipal art commission for advice and guidance with regard to civic art problems. There is no such body in Kenosha, however, and it is doubtful if one is needed. The state law of Wisconsin states that the council shall refer to the city plan commission for advice, consideration and

report before final action is taken by council, the following matters:

The location and architectural design of any public building and the location of any statute or other memorial, the location, extension, alteration, ornamentation or planning of any street, park or playground.

It is entirely within the province of the city plan commission, therefore, to suggest a definite civic art program and to devote some effort to making the program effective. The Wisconsin statute particularly gives the plan commission the prerogatives of an art commission and the plan commission should understand and appreciate this responsibility. It should seem advantageous, therefore, for the council and other city officials to depend upon the judgment of the plan commission in this special field. Officials who make no claim of being artists, or even for having cultivated tastes in such matters, should be entirely willing to cooperate with the plan commission to the extent of submitting questions of taste to it before action is taken.

A Civic Art Program

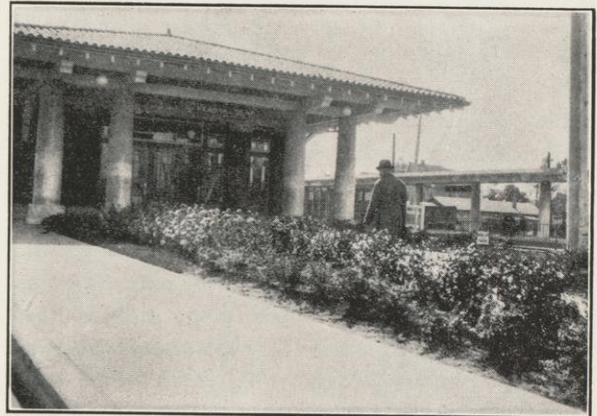
Emphasis is laid upon the necessity of cooperating with city officials for the reason that public work makes up a considerable portion of the structure of the city and has a great deal to do with the city's appearance. Public work, moreover, as distinguished from private buildings of various sorts, is subject to a measure of control. Briefly, the responsibilities of the city in matters of appearance may be roughly divided into three classes:

1. The natural beauties and other assets of the site.
 - (a) Lake shore.
 - (b) Natural park areas.
 - (c) Hills, ravines, streams.
 - (d) Natural forests.
 - (e) The natural contour of the land.
2. Public works which may make the city attractive.
 - (a) Cleanliness of streets.
 - (b) Attractive and well maintained pavements.

- (c) Public structures of good design, such as schools, hospitals, bridges, libraries, etc.
- (d) Street accessories of pleasing lines, light standards, traffic signals, street name signs, etc.
- (e) Proper street tree planting and care.
- (f) High grade landscape art in parks.
- (g) Praiseworthy monuments.
- (h) Regulation of traffic in parks and on pleasure drives.

3. Guidance and control of semi-public or private works.
 - (a) Removal of poles and wires and sidewalk obstructions.
 - (b) Regulation of signs and bill boards.
 - (c) Improvement of home grounds.
 - (d) Elevating standards in design of stores, apartments, and even industrial buildings.

Kenosha has paid some attention to these things and today, as a consequence, is an unusually attractive city. One may enter it with the expectation of finding it ordinary and commonplace, but he leaves it with a distinct and generally satisfactory impression. The homes in Kenosha are well cared for. Streets are clean and attractive. The parks are especially well kept. The Nash or Simmons athletic field would be a credit in any city.

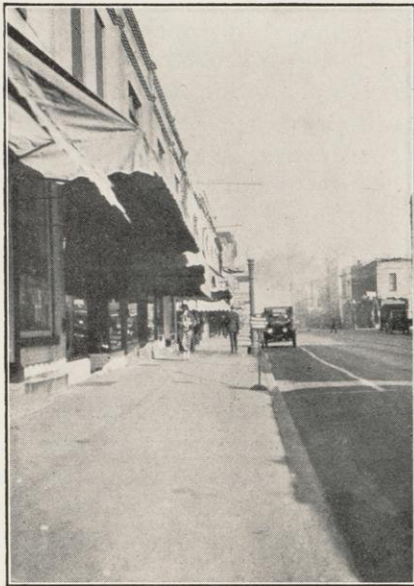


The North Shore Railway station—a contribution to the city's appearance.

The North Shore Railway station deserves high praise. The library is a classic gem. The monuments of the city are not numerous, but have unusual character. The civic center is just taking form and promises to add much to the tone of the downtown district.

All these features of the city which combine

to make it attractive have come into being more as an accident than through any conscious effort on the part of the city to supervise its make-up. This same haphazardness which has allowed these things to appear is also responsible for certain other developments that reduce the attractiveness of Kenosha. Private buildings, for instance, are not at all in the same class with those erected out of public funds. Stores on Main Street especially give the city a shabby, depressing appearance



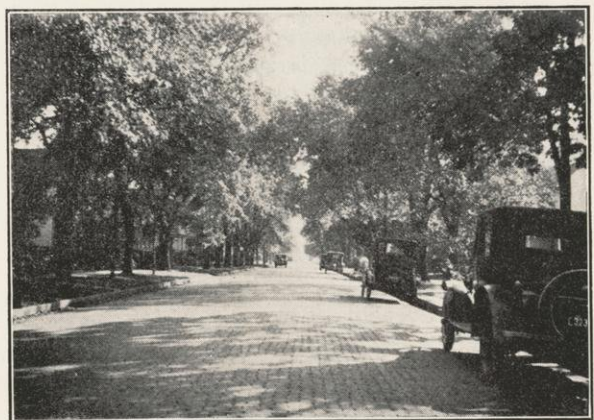
Not a particularly pleasing view for the main street of a first-class, growing city.

which belies its character. Overhanging signs and awnings in the business section help to lower the dignity and attractiveness of the business section. Just east of Main Street is a district which is suffering from the inevitable blight which comes from the stopping of circulation. It may be noted, too, that school grounds are not planned as they should be, and that on certain streets trees have been neglected. And here and there in outlying sections, often adjoining residences and occupying prominent positions, are blatant, obtrusive and ugly bill boards.

It is obvious that many of the conditions noted above have developed because there was no centering of responsibility for the preservation and improvement of appearances. This lack should be studied as a part of the city planning program. Kenosha has many unusual

opportunities and can become without great expense a wholly attractive city if it sets out to accomplish this end. One of the first interests of the city should be in those assets which nature has placed before the city and which merely await taking. It would seem highly desirable that a greater effort be made toward the preservation of lake front areas. Certain citizens of Kenosha have already appreciated this need and have shown unsurpassed devotion to their city's interests by acquiring and holding large sections of the lake front north of the city until such time as the municipality may take these areas off their hands. There are other lake front areas south of the city that could very well be held in similar fashion. And inland are also many tracts which nature has apparently created for park purposes. All these the city should acquire and hold for the use of its future citizens. If a city fails to act at opportune times to acquire these natural park areas, it soon finds that they are taken for other purposes and thereafter their attractiveness rapidly disappears. Woods are destroyed, streams are put underground, and valleys become dumping places. One may witness this action taking place now in the Pike Creek Valley, and it is suggested here that this valley as a parkway would be worth more to the city than it will ever be worth if used as a public dump.

There are many citizens of Kenosha who have always manifested a deep interest in trees.



The effect produced on streets where trees have long been planted.

The old elms and maples which today appear along many streets and contribute so much to the attractiveness of Kenosha, were planted by

men who loved trees, who appreciated their value in the city, and who spared no pains to protect and preserve them. In the early days it was possible for a few individuals, out of an interest in such matters, to improve the aspect of the city by planting trees, but today the city is larger and more complex and there is, as a consequence, less thought given to these natural adornments.

The municipality itself has made no forest reservations, yet there are densely wooded areas nearby which should be permanently set aside because of their manifold attractions and future value. The city and county could well join for the purpose of acquiring a forest preserve near what is known as Petrifying Springs. It is suggested that perhaps a forestry society might be organized for the purpose of stimulating an interest in such projects and of protecting the tree growth in the vicinity of Kenosha. Such an organization undoubtedly could secure favorable cooperation and help from the owners of property upon which native forests now stand. A group acting without ulterior motives could aid the city greatly

in securing forest lands. They could call attention, for instance, to the commercial value of forestry. City forests are rare in this country, but are common abroad and have been found very profitable municipal enterprises.

The practice of planning straight streets and rectangular blocks on rolling ground also contributes to the destruction of natural attractions. Excessive grading becomes necessary and the street scenes as a consequence become stilted and highly artificial. Terraces of different heights appear in front of dwellings, buildings are not adjusted to the ground and, as frequently happens, the street itself comes to an end in a steep hillside. These conditions do not indicate an intelligent adaptation of the form and structure of the city to the site which nature has provided.

Public works in every city make a notable contribution to the municipal scene. The manner in which the city does its housekeeping, for instance, is a factor in the creation of a favorable impression upon strangers. There is no excuse today for any city to have ugly,

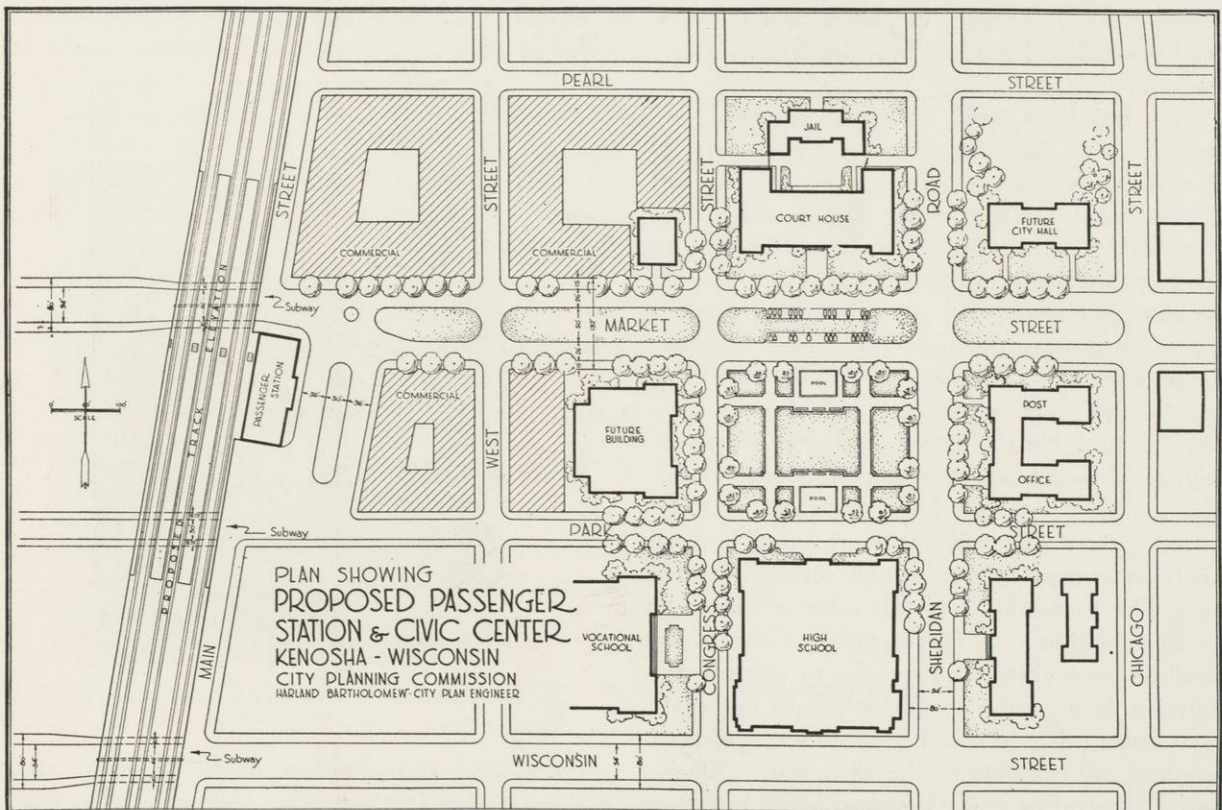
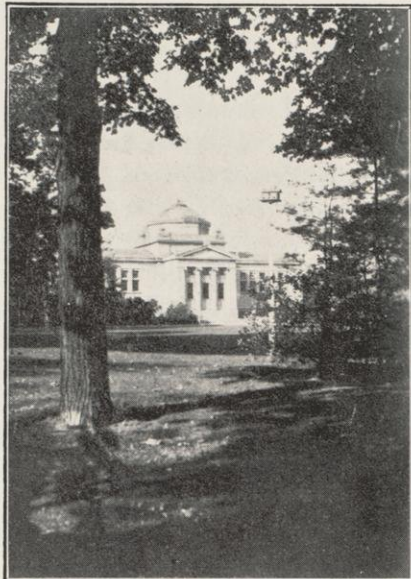


Plate 29.

dirty streets. Street paving materials have been perfected to a high degree. The automobile at once brought about a reduction of



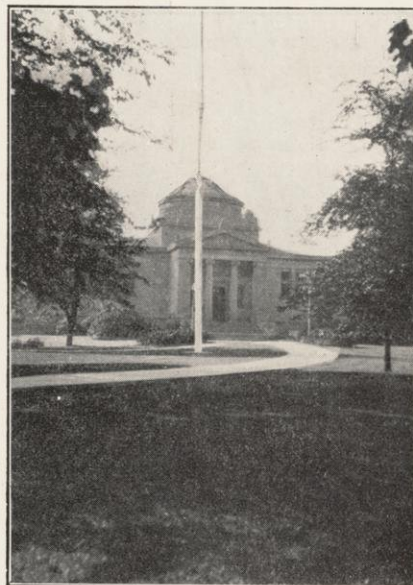
Simmons Library.

the unpaved street areas and has stimulated a wider interest in attractive roadway surfaces. It is possible in practically every city to keep streets clean and above criticism, and this survey has disclosed the fact that those in Kenosha are.

The buildings and structures erected for public use in Kenosha deserve a special note. The city has embarked upon a program for the development of the civic center which will eventually give it as fine a public building group as any to be found in this country. This project has already been briefly described but views are presented here to illustrate more fully its great attractiveness. Closely related to the civic center is the proposal for the erection of a new Chicago and Northwestern Railway passenger station. It has been proposed as a part of the civic art plan to widen Market Street from the railroad eastward, and at the railroad end of this broad artery to erect a new terminal building. The possibilities of this scheme stimulate the imagination. In future years it would be possible for a visitor to Kenosha to alight from his train at a modern terminal, pass out eastward upon a broad tree-bordered avenue, similar in many respects to the avenues of Washington, and after a walk eastward of but two blocks to enter an open plaza or park, the

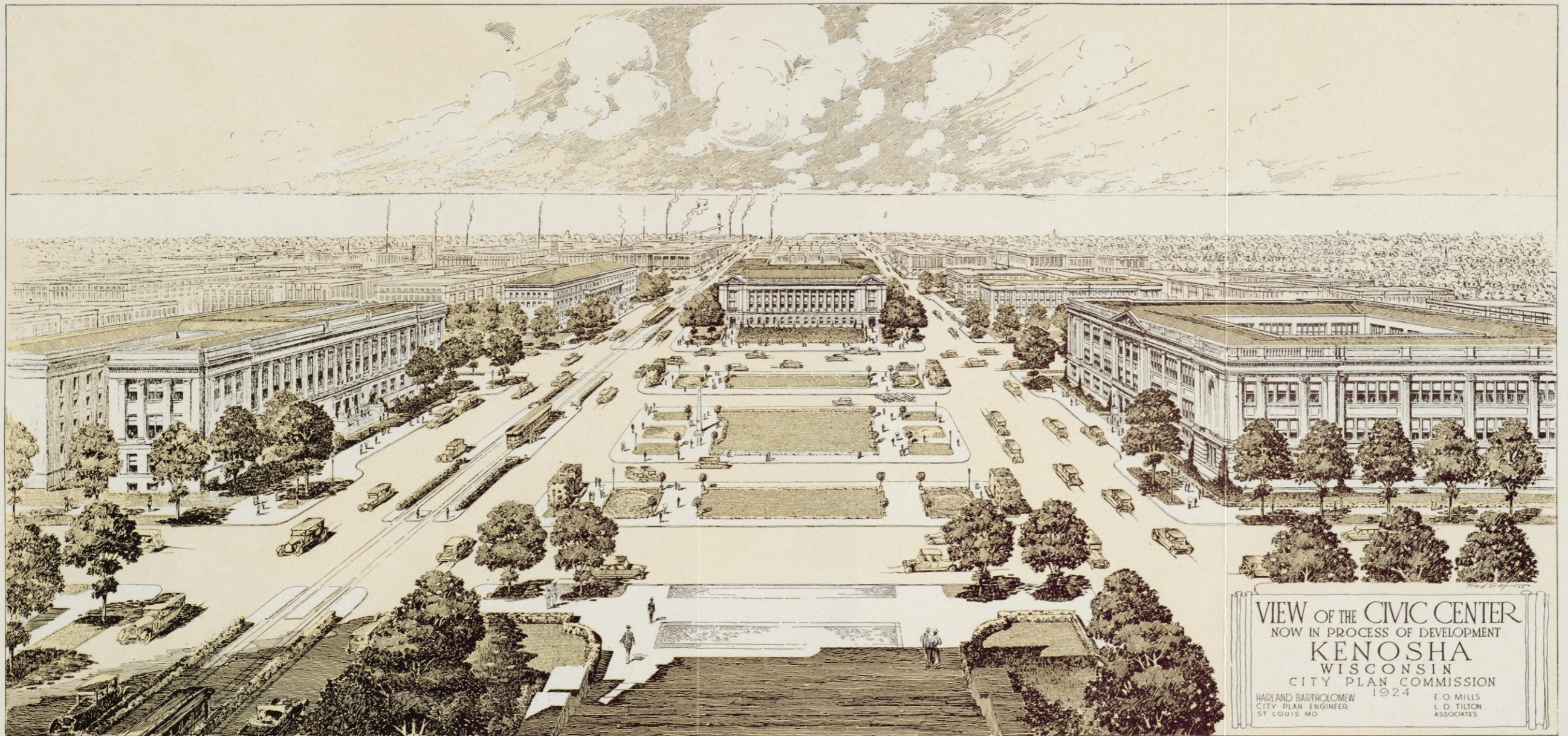
center of a group of magnificent buildings. Beyond this civic center and around it will be the business interests of the downtown section. The city has already made known its intention of carrying out its portion of this scheme and it now remains only for the Chicago and Northwestern Railway to build its new terminal in the location indicated. This the railroad has agreed to do in connection with the elimination of its tracks through the city.

The other public buildings of Kenosha are equally meritorious. The Simmons Library is a beautiful building in a well-nigh perfect setting. Kenosha would be distinctive for this one structure alone if it had no other attractions. Few visitors pass through Kenosha without making a mental note of the library building and its surroundings. The schools, too, generally speaking, deserve praise, although it must be said that the policy of building several structures from the same set of plans will not in the end leave Kenosha with altogether creditable school buildings. The designs thus far adopted for Kenosha public schools are not so excellent that they can be repeated indefinitely. Whenever it is desired, in the interest of economy, to utilize the same set of plans, the Board of Education ought to



A better place could be found for the flag pole—the beautiful library deserves more consideration.

insist, and the architect ought to insist, that the exterior treatment be revised so that each school may be different from the others. The

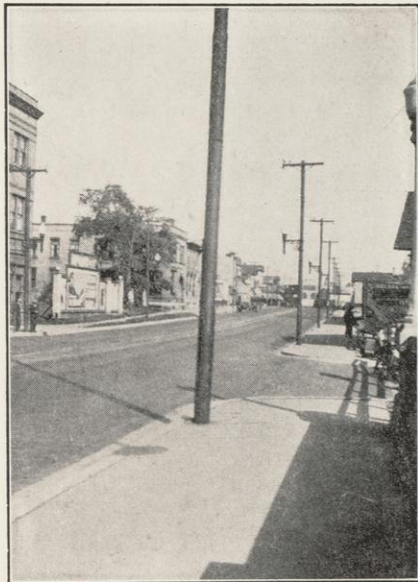


VIEW OF THE CIVIC CENTER
NOW IN PROCESS OF DEVELOPMENT
KENOSHA
WISCONSIN
CITY PLAN COMMISSION
1924
HARLAND BARTHOLOMEW
CITY PLAN ENGINEER
ST. LOUIS MO
E O MILLS
L D TILTON
ASSOCIATES

Plate 30.

landscape arrangement of school grounds, moreover, is not given as much attention as it deserves. The Board of Education should be urged to give greater consideration to these important matters. It is a well known fact that children are not insensible to the cultural influences of good architecture and a well-maintained landscape. Every school site that is purchased should be planned completely before the building is started and arrangement of the grounds should be so established that (1) the building may have a suitable position on the site, (2) an area in front and on the sides that may be devoted to lawns and planting, and (3) an adequate, well-graded playground may be found at the rear.

Kenosha has had some experience with bridges and thus far the standards which have been set for such work are commendable. The street accessories in use have also been selected with some consideration for design. Lighting standards are modern in type, and the kind of lights used along Milwaukee Avenue is especially noteworthy. Trolley poles appear along this street and light brackets have been attached to these poles. This is the most satisfactory way of solving the problem. Many



The right type of light for streets where one set of poles is required for trolley wires.

cities install a new set of light standards and thereby add to the number of poles standing on the street. The rule to follow in cases of

this sort is that whenever possible the aim should be to remove poles rather than add to them. Many cities in an effort to clear the sidewalks are suspending trolley wires from buildings, and it has even been proposed to suspend lights from the buildings.

It is believed that Kenosha would find it advantageous to devise a lighting plan for the entire city, in anticipation of the day when such an improvement may be authorized. The standards to be installed in various sections of the city should be carefully selected by a group of lighting authorities, architects and engineers, and standards of the design selected should be required whenever new lights are put in. There should be a residence light, and business light, possibly of two types, and a purely utilitarian light for industrial districts. Space will not permit a discussion of the various factors to be considered in selecting lighting standards, but it may be stated that the common faults to be avoided are clumsiness and over-ornamentation. It is possible to find stock patterns for standard lights that are well designed. Most of them, however, are faulty in that they are much too coarse and heavy for the function performed, that is, to support a light-weight glass globe, and are loaded with meaningless ornaments that destroys any beauty of line that they might have.

Street name signs and traffic signals are amenable to the same suggestions made for lighting standards. A pattern for the former especially should be selected and used throughout the entire city. Kenosha at present is equipped with a miscellaneous assortment of street name signs, although the majority are of a standard pattern. Kenosha gives some attention to the maintenance and care of street trees, although there is no specific tree commission or a department with an appropriation of its own to carry on this work. The Park Department handles it and confines its activities chiefly to the care of existing planting. There is no special effort made to require new planting in districts that are just being opened up or to secure authority to plant new trees on streets that have been long neglected.

Kenosha has certain streets which today are bordered with tall and attractive trees. These streets should serve as an inspiration. They show what can be done in order to give all

streets the character which these few have at present. It is necessary to plant trees upon them at regular intervals only, preferably at the time the street is first laid out. Certain subdividers are following this practice and the city plan commission should make an effort to persuade all to adopt the same policy.

There is nothing that improves the appearance of any city quite so much as tree-lined streets. Kenosha should know this and should have a well established tree commission or bureau devoting its entire effort to the care of the old street trees and the planting of new ones. This commission would specify suitable types of trees, proper spacing, and should have a force to do the planting. When such arrangements exist elsewhere it is customary to provide by ordinance for the carrying out of

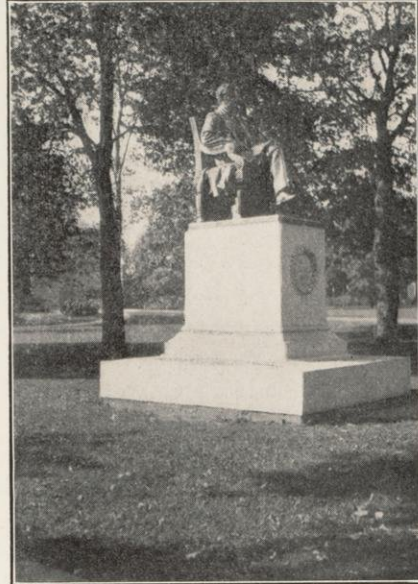


Trees uniformly spaced, planted at time subdivision is opened.

street tree planting in the same manner as other street improvements, the request being made by petition of a certain small number of property owners, the expense of the tree planting being divided equitably among the property owners benefited. Kenosha should find this method of handling the street tree problem better than the one in effect at the present time. The presence in the city of a recognized authority on trees would tend to correct the practice of planting trees too close together, planting the wrong varieties, and having such a haphazard distribution of trees along the streets.

The landscape work in public parks likewise contributes in no small measure to the attractiveness of the city. Those in charge of park work in Kenosha appreciate this fact.

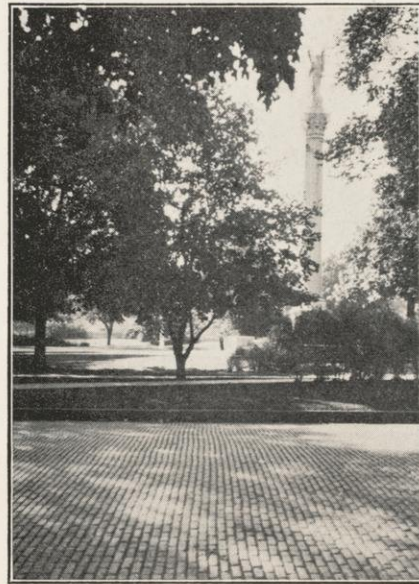
Kenosha's parks are being designed, built and maintained according to the highest standards,



One of Kenosha's few treasures—should be moved to more appropriate setting in new civic center.

and it should be a matter of pride that this work is being done on a budget that is small in comparison with similar budgets in other cities.

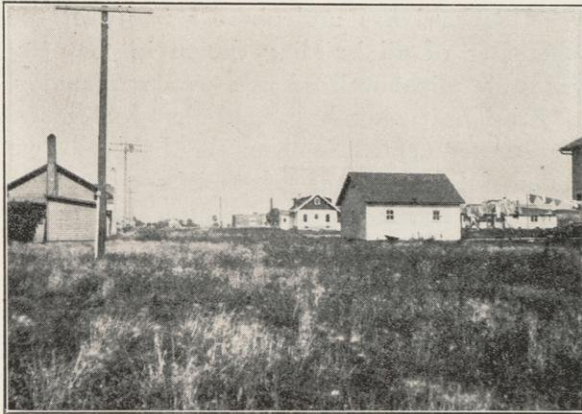
Kenosha has public monuments. Two of



A beautiful monument—a beautiful building, but the two not properly displayed because of careless landscape designing.

these stand in the grounds of the library. Both are magnificent and would be creditable adorn-

ments of a capital city. The Lincoln monument, however, is not especially well placed. It stands alone on one corner of the library plot and has no walk about it, no planting, and has no relation to either the street or the library building. A monument of this sort would be much better placed on the axis line of a building, at the termination of a street, or in the center of a public building group, as in the civic center. The Soldier's Memorial is on the axis line of the library building, but suffers from an improper landscape treatment. It is practically impossible, except from certain positions, to see the top, and there is scarcely a place from which a front view of the entire shaft can be secured. Visitors driving past the park are scarcely aware of the fact that

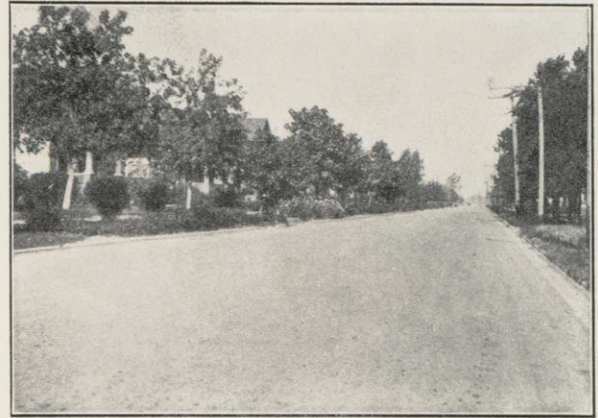


Poles and wires on easements at rear of lots in a new north side subdivision—the standard to be followed in all subdivisions.

Kenosha has such a beautiful symbolic monument.

Aside from the opportunities afforded by proper guidance of public work, the city has opportunities now and then to exert an influence upon private or semi-public works. In the manner of control of poles and wires, for instance, there is much that can be done. Many streets in Kenosha are afflicted with these utilities, and they appear even on some of the newest streets. This should never be permitted, for it is customary all over the country today to arrange subdivision plans in such a way that all overhead utilities can be placed upon rear lot lines. The utility companies themselves prefer this practice and frequently urge real estate promoters to set aside rear lot easements. The placement of wires here not only improves

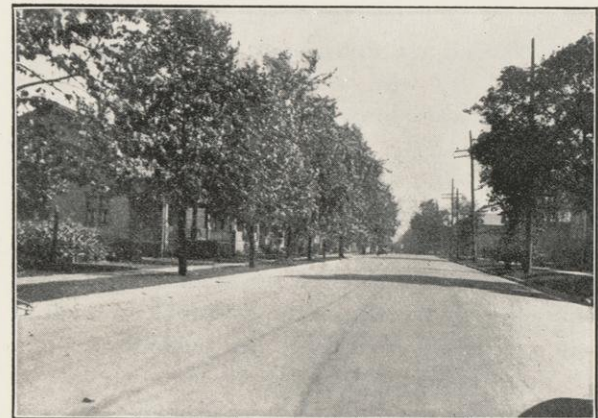
the appearance of the street through the removal of these disfigurements, but also permits a more satisfactory handling of street trees. So



One side of the street well planted and cared for—the other damaged by poles and wires.

long as poles and wires are permitted on the streets it is practically impossible for the city to secure a satisfactory tree growth.

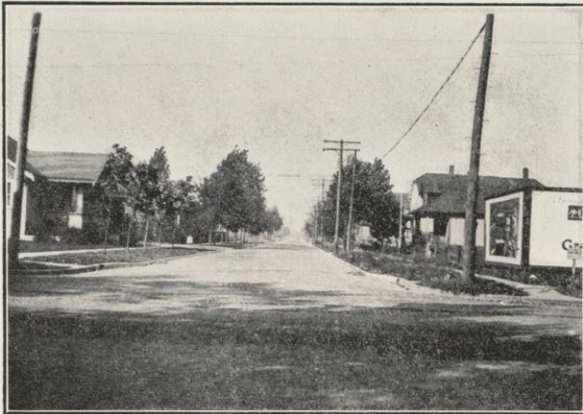
The regulation of signs and billboards deserves consideration also. Kenosha is not seriously troubled with billboards in residence districts and the zoning ordinance will protect them as long as it is enforced. But in the business district overhanging signs are objectionable. Main Street is badly afflicted. There should be a city ordinance to bring some order and reasonableness into business signs. It is becoming the custom in many cities



The appearance of this street would have been improved greatly if poles and wires had been kept off and both sides planted alike.

to abolish signs over the sidewalk entirely. This makes for a much more dignified street and leaves no one doing business there at a dis-

advantage. The present arrangement does place certain merchants at a disadvantage because the sign which they may erect is likely



Three factors that affect the appearance of the city—unsystematic tree planting, poles and wires and bill boards.

at any time to be practically invisible from any distance down the street. The practice of hanging signs out over the sidewalk becomes merely a form of blatant competition in which each merchant tries to outdo the other. The street scene as a consequence soon resembles a country fair, and it is really questionable whether there is any particular advantage to merchants using signs of this type. Many business men are beginning to realize this and are adopting the simple device of placing a flat, well-arranged name plate in a conspicuous place on the front of their building. Many leases of the newer store buildings, in fact, contain clauses prohibiting any signs except those attached to the building in the manner described above, and in places specifically provided for signs. It is customary also for architects to design building facades with special sign areas or blank name plates that form an integral part of the design. It is recommended here that the city council take steps immediately to require the eventual removal of all over-hanging signs in the business section.

The manner in which the home grounds of the city are maintained manifestly has a bearing upon the attractiveness of the city. The municipality, however, is not in a position to encourage the improvement of home grounds directly. Indirectly, it can stimulate an interest in such things by doing good work in its parks

and around public buildings. The influence of civic organizations should be sought in an effort to encourage garden contests and other measures which result in the betterment of appearances in residence districts.

In the matter of the design of private buildings moreover, there is little that the city itself can do. The Chamber of Commerce in Cleveland, Ohio, however, offers a prize each year to the best designed building in each of three classes: stores, factories and apartments. The amount of the prize is sufficient to stimulate an interest in the contest. The field was restricted to these three types of buildings because little attention is generally paid to the exterior design of such buildings. Churches, hospitals and larger commercial structures are all likely to be much more carefully treated. The award in Cleveland has undoubtedly improved the character of all building design in that city. Kenosha might well adopt a similar plan.

Finally, it may be stated that builders of business structures in Kenosha have not yet taken full advantage of their opportunities. The street system of the downtown section invites the erection of several tower buildings. One especially on the corner of Main Street and Market, looking west down the widened Market would add notably to the character of the business section. Such a tower building would dominate the municipal scene and imme-



Market Street looking east—why not a Wrigley building with tower to terminate this view at Main?

diately impress everyone who visits the Civic Center or gets off the train at the new North-Western station.

APPENDICES

- A. Redraft of Order for Track Elevation.
- B. Land Subdivision Rules.
- C. Wisconsin City Planning Law.

APPENDIX A

Redraft of Order for Track Elevation

KENOSHA, WISCONSIN

June, 1924.

IT IS THEREFORE ORDERED, That the Chicago and North Western Railway Company, the City of Kenosha and the Wisconsin Gas and Electric Company furnish all necessary materials and labor, and perform all work necessary to effect the separation of grades in the manner herein ordered, and the cost and expense thereof is proportioned and shall be borne as hereinafter specified.

Section 1, Paragraph 1: The plane of the main tracks of the Wisconsin Division of the Chicago and North Western Railway Company shall be elevated from some point south of Selma Avenue through the City of Kenosha to some point along the line between Putnam Street and the north city limits of Kenosha. The plane of the tracks of the "Kenosha Division" shall be elevated from its junction with the Wisconsin Division westward to Ridge Street. All these track changes shall be accomplished in such manner as to permit certain streets and avenues to be carried under the tracks of the railway company, as more particularly described in the following section:

Paragraph 2: All elevations shall refer to the City of Kenosha datum.

Paragraph 3: All street elevations mentioned shall refer to elevation of crown of roadway. All track elevations mentioned shall refer to elevation of top of rail.

Section 2. Paragraph 1: Selma Avenue shall be carried under the tracks of the railway company. The elevation of the roadway shall be not less than 30 feet above datum. The subway shall provide a roadway 46 feet wide between curbs, with a vertical clearance of not less than 13.5 feet, and two sidewalks 17 feet wide. The track structure may have two lines of supporting columns at the curb lines and inside thereof, and one line in the street. The approaches shall have suitable vertical curves and maximum gradients of 3%. Side approaches shall be constructed on Ann Street and on Pickwick Street. These approaches shall occupy at least the full width of the streets as laid out.

Paragraph 2: Sheridan Road shall be carried under the tracks of the railway company.

The elevation of the street shall be not less than 31.5 feet above datum. There shall be a roadway 46 feet wide between curbs, with a minimum vertical clearance of 14.5 feet, and two sidewalks each 17 feet wide. The track structure may have two lines of supporting columns at the curb lines and inside thereof, and one line in the street. The approaches shall have vertical curves and maximum gradients of 3%, including the side approach on Ann Street.

Paragraph 3: Collins Street shall be carried under the tracks of the railway company. The street elevation in the subway shall conform to a uniform gradient from elevation 30 feet above datum at Sheridan Road to elevation 34.50 feet above datum at Fremont Avenue (resulting in elevations of approximately 32.5 feet and 32.8 feet at distances of approximately 100 feet and 190 feet respectively west of Robert Street). The approaches shall preferably conform to this same grade line, but in any event shall not have gradients exceeding 3% with proper vertical curves. A roadway 46 feet wide with a vertical clearance of 13½ feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and also at the center line of the street. Surface drainage from the subway shall be provided.

Paragraph 4: Selleck Avenue-Evergreen Street, shall be carried under the tracks of the railway company with approaches, the gradients of which will not exceed 3%. A roadway 46 feet wide with a vertical clearance of 14½ feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. Surface drainage from the subway shall be provided.

Paragraph 5: Strong Street shall be carried under the tracks of the railroad company at an elevation of 33 feet above datum, with approaches at same elevation. A roadway of 46 feet with a vertical clearance of 13½ feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. Surface drainage from the subway shall be provided.

Paragraph 6: Elizabeth Street shall be carried under the tracks of the railway company at an elevation of 33.5 feet above datum. The approaches shall preferably run uniformly to the official grades of 32.8 feet above datum at Bond Street and 34.4 feet above datum at Fremont Avenue, respectively, but in any event shall not have gradients exceeding 3% with proper vertical curves. The side approaches on West Main Street shall have vertical curves and maximum gradients of 3%. Surface drainage eastward from the subway shall be provided. A roadway 46 feet wide with a vertical clearance of 14.5 feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. The two existing switch tracks at Elizabeth Street and Fremont Avenue may remain at street grade.

Paragraph 7: Pomeroy Street shall be carried under the railway company's track at an elevation of not less than 33.3 feet above datum. A roadway 30 feet wide with a vertical clearance of 13½ feet, and two sidewalks, each 9.75 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof. Surface drainage from the subway shall be provided.

Paragraph 8: Prairie Avenue shall be carried under the railway company's track at an elevation of not less than 33 feet above datum. A roadway 46 feet wide between curbs with a vertical clearance of 13.5 feet, and two sidewalks, each 17 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. Surface drainage from the subway shall be provided.

Paragraph 9: Wisconsin Street shall be extended and carried under the tracks of the railway company. A roadway 46 feet wide with a vertical clearance of 13.5 feet, and two sidewalks, each 17 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. Surface drainage from the subway shall be provided. The approaches, including side approaches, shall have maximum gradients of 3%.

Paragraph 10: Park Street shall be carried under the tracks of the railway company at an elevation of 32.5 feet above datum. A roadway 30 feet wide with a vertical clearance of 13.5 feet, and two sidewalks, each 9.75 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof. Surface drainage from the subway shall be provided.

Paragraph 11: Market Street shall be carried under the tracks of the railway company at an elevation of not less than 32 feet above datum. A roadway 46 feet wide with a vertical clearance of 14.5 feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines, and inside thereof and at the center of the roadway. The approaches, including side approaches, shall have vertical curves and maximum gradients of 3%.

Paragraph 12: Fremont Avenue shall be carried under the tracks of the railway company at an elevation of not less than 32.5 feet above datum. A roadway 46 feet wide with a vertical clearance of 13.5 feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines, and inside thereof, and at the center of the street. The approaches, including side approaches, shall have vertical curves and maximum gradients of 3%.

Paragraph 13: Pleasant Street shall remain a grade crossing raised to an elevation not exceeding 43.3 feet above datum. The approaches shall have vertical curves and maximum gradients of 3%.

Paragraph 14: Garden Street shall be closed to traffic except that a pedestrian subway 8 feet high and 8 feet wide, with a floor elevation of not less than 32 feet above datum and passing under all railway tracks at this point shall be provided.

Paragraph 15: Grand Avenue shall be carried under the tracks of the railway company at an elevation of not less than 32.6 feet above datum. A roadway 46 feet wide between curbs with a vertical clearance of 14.5 feet, and two sidewalks, each 17 feet wide, shall be provided. The track structure may have supporting columns at the curb lines, and inside thereof, and at the center of the street. The approaches shall have vertical curves and maximum gradients of 3%. Surface drainage from the subway shall be provided.

Paragraph 16: Middle Street shall be carried under the tracks of the railway company at an elevation of not less than 32.6 feet above datum. A roadway 46 feet wide with a vertical clearance of 13½ feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines, and inside thereof, and at the center of the street. Surface drainage from the subway shall be provided.

Paragraph 17: Broad Street shall be carried under the tracks of the railway company at an elevation of not less than 33.3 feet above

datum. A roadway 46 feet wide, with a vertical clearance of 14.5 feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof and at the center of the street. The approaches shall have vertical curves and maximum gradients of 3%. Surface drainage from the subway eastward shall be provided.

Paragraph 18: Bronson Street shall be carried under the tracks of the railway company at an elevation of not less than 33.6 feet above datum. A roadway 46 feet wide with a vertical clearance of 13½ feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. The approaches shall have elevations not exceeding 33.6 feet above datum in order to afford surface drainage from the subway. The side approaches, if any, shall have vertical curves and maximum gradients of 3%.

Paragraph 19: Division Street shall be carried under the tracks of the railway company as near as practicable to a uniform gradient between the established grades of 33.0 feet above datum at Julia Street and 34.4 feet above datum at North Victoria Street, except that under the west portal the elevation shall be 33.6 feet above datum. A roadway 46 feet wide with a vertical clearance of 13.5 feet, and two sidewalks of 17 feet each shall be provided. The track structure may have supporting columns at the curb lines and inside thereof and at the center of the street. Surface drainage from the subway shall be provided.

Paragraph 20: North Street shall be carried under the tracks of the railway company at an elevation of not less than 33.5 feet above datum. A roadway 46 feet wide with a vertical clearance of 13½ feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. The approaches and side approaches shall have vertical curves and maximum gradients of 3%.

Paragraph 21: Limit Street shall be carried under the tracks of the railway company at an elevation of 31.5 above datum. A roadway 46 feet wide with a vertical clearance of 14.5 feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. The approaches and side approaches shall have vertical curves and maximum gradients of 3%.

Paragraph 22: Fairfield Avenue shall be carried under the tracks of the railway company at an elevation of not less than 32.0 feet above datum. A roadway 46 feet wide with a vertical clearance of 13½ feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof and at the center of the street. The approaches shall have vertical curves and maximum gradients of 3%. Surface drainage shall be provided to the east.

Paragraph 23: Putnam Street shall be carried under the tracks of the railway company at an elevation of not less than 29.5 feet above datum. A roadway 46 feet wide, with a vertical clearance of 14.5 feet, and two sidewalks, each 10 feet wide, shall be provided. The track structure may have supporting columns at the curb lines and inside thereof, and at the center of the street. The approaches shall have vertical curves and maximum gradients of 3%.

Section 3: At the various avenues, streets, etc., where grades are to be changed, they shall be connected by vertical curves wherever the difference between connecting grades exceeds 0.5 feet per 100 feet. The vertical curve shall have a total length of not less than 40 feet, extending at least 20 feet on each side of the point of intersection of said grades.

In all cases the grade of curbs and sidewalks adjoining thereto shall correspond to the grade of the crown of the roadway; or shall correspond to the standards of the city in such matters; except that at Selma Avenue, the north side of Sheridan Road, Fremont Avenue and North Street the walks may be carried through the subways at a higher elevation than that of the roadways.

Section 4: The pavement in subways and on bridges shall be of brick on a concrete foundation, with curbs of stone or concrete, and walks of concrete, unless otherwise agreed to by the city and the railroad company, and all in accordance with the standards of the city. The balance of pavement within the right-of-way lines may be of brick on a concrete foundation, or of such other material as is used by the city for paving the portions of the street adjacent to the right-of-way. Suitable hand railing shall be provided at the outer edge of sidewalks at such places as may be necessary for the safety of pedestrians. All subways shall be suitably lighted.

Section 5: The material to be used in the superstructure of the bridges and track superstructures shall be iron, steel and concrete, or a combination of the same, and such track structure shall not permit oil, water, dirt or

other deleterious materials to fall or drop upon the street below.

Section 6: The work to be done under this order shall be performed as follows:

Each utility, not municipally owned, shall make all changes in its property made necessary by reason of the carrying out of the provisions of this order.

The Wisconsin Gas & Electric Company shall assume responsibility for all excavation or embankment required to conform to the proposed street grades between vertical planes one foot beyond the outside rails of its street car tracks, and for all pavements or road surface within the same limits, as well as for its own track construction. During the progress of this grading suitable provisions shall be made for street car passengers to transfer on foot over or around the work in question, by the railway company across its right-of-way, and elsewhere by the street car company.

The city shall assume responsibility for all changes required in the property and appurtenances of its water, police and fire departments, such as water mains, wires, poles, etc. It shall assume responsibility for all sewer changes outside the limits of the railway right-of-way extended across the street, including the necessary catch basins to provide for the surface drainage from such subways as specifically call for surface drainage. Where sewers are not available in the streets and adjacent to such subways as the railway must provide drainage for, the city shall cause such sewers to be built and paid for as is customary in such matters in that city. It shall also assume responsibility for all changes in existing streets outside of the limits of the right-of-way extended across such streets, except for such work as is put upon the owners of utilities and the street car system. It shall also assume responsibility for the incandescent lamps required in the subways, together with the wiring up to the portals of the subways, and also for the electric current to operate the lamps. It shall also cause its legal and engineering departments to co-operate with the same departments of the railway company in the work of prosecuting negotiations with or defending actions of such property owners as may claim damages by reason of changes made in grades of public streets and alleys, or the closing of any public streets and alleys; and of opening an extension of Limit Street, between John Street and the railway's west right-of-way line.

The railway company shall construct all subways and perform all work within the limits of its right-of-way, and of such right-of-way lines extended across the streets and alleys, except as otherwise ordered herein. It shall install

in all subways the necessary fixtures for incandescent lamps, together with the necessary wiring back to the portals of the subways. It shall furnish all facilities required for such temporary maintenance of street traffic as may be required during the progress of its work. It shall prosecute or defend all actions arising from vacations of streets and alleys, or changes in grades of streets and alleys resulting from the provisions of this order.

All the work required to be done under this order by the Chicago & North Western Railway Company, or other public service corporations, upon or in connection with the public streets or alleys of the city shall be done under the superintendence and subject to the inspection and approval of the city engineer. At least thirty days prior to the proposed commencement of any part of the work affecting the public streets and alleys, detail plans and specifications therefor shall be submitted to the city engineer for examination, who shall give the same prompt attention and shall approve same if they do not conflict with the provisions of this order, or in the absence of specific provision do not conflict with the standards and requirements of the city. If such plans are not correct or satisfactory the city engineer shall promptly advise the interested party or parties, stating specifically the reasons for objection thereto.

Section 7: Whenever it shall be necessary in the prosecution of the work herein authorized or required to be performed, the railway company may temporarily obstruct any public street, avenue, road or alley, to such extent, and for such length of time, as may be approved by the city engineer. It may also erect such temporary structures as may be required in the execution of this work, subject to a like approval.

Section 8: The city shall by appropriate action of its common council, and by all other necessary proceedings to that end, make the necessary changes in the grades of the avenues, streets and alleys to comply with the provisions of this order.

Portions of certain streets and alleys are hereby declared vacated, such vacations to be effective when the railway company actually starts the work of track elevation at these points. These vacations are more particularly described as follows:

All that part of First Street described as follows:

Beginning at a point in the south line of the first east and west alley south of Park Street fifteen (15) feet west of the east line of lot five (5) of Tanner's Subdivision of the north part of block four (4) in the McLaughlin's Ad-

dition, a subdivision in the southwest one-quarter ($\frac{1}{4}$), section thirty-one (31), township two (2) north, range twenty-three (23) east of the third principal meridian; thence north along a line parallel to and fifteen (15) feet west of the east line of aforesaid lot five (5) produced to an intersection with the easterly line of First Street; thence southeasterly along the easterly line of First Street and said line produced to an intersection with the south line of aforesaid alley; thence west along the south line of said alley to the place of beginning.

All that part of the above mentioned alley, being at the south end of First Street, which lies within the limits of the railway right-of-way lines extending across said alley.

All that part of Pearl Street between the east line of Fremont Avenue and the east line of the railway right-of-way projected across the street from the south.

All that part of the first north and south alley east of Fremont Avenue lying between the southerly line of Pearl Street and the north line of the east and west alley between Market and Pearl Streets.

All that part of Garden Street lying between the east right-of-way line of the railway company and the east line of Victoria Street, subject to the provision of Sec. 2, Par. 14, providing for a pedestrian subway at this point.

All that part of the north one-half ($\frac{1}{2}$) of Orange Street lying between the west line of lot six (6) and the east line of lot seven (7), both in block sixty-nine (69), in the northwest one-quarter ($\frac{1}{4}$) of the northeast one-quarter ($\frac{1}{4}$) of section thirty-one (31), township two (2) north (original town of Southport), range twenty-three (23) east of the third principal meridian. Also all that part of the south one-half ($\frac{1}{2}$) of Orange Street lying between the west line of lot six (6), block sixty-nine (69) produced south across Orange Street and a line at right angles to the south line of Orange Street, at a point where the easterly right-of-way line of the railway company intersects the south line of Orange Street.

All that part of Quince Street lying between the west line of lot six (6) and the east line of lot seven (7), both in block sixty (60), in the northwest one-quarter ($\frac{1}{4}$) of the northeast one-quarter ($\frac{1}{4}$) of section thirty-one (31), township two (2) north (original town of Southport), range twenty-three (23) east of the third principal meridian, said lines being projected across Quince Street.

All the north one-half ($\frac{1}{2}$) of Lemon Street fronting lot six (6), block fifty-nine (59), and all the south half ($\frac{1}{2}$) of Lemon Street fronting lots four (4) and five (5), block sixty (60), all in the northwest one-

quarter ($\frac{1}{4}$) of the northeast one-quarter ($\frac{1}{4}$) of section thirty-one (31), township two (2) north (original town of Southport), range twenty-three (23) east of the third principal meridian.

All that part of Hanson Street lying between the west right-of-way line extended across the street and a line forty-two (42) feet east of the east right-of-way line and parallel thereto (this line is approximately six hundred eighty-five (685) feet west of the west line of Calendonia Street).

All that part of Linden Street lying between the east right-of-way line of the railway company and a line forty-six feet east of and parallel to said right-of-way line (this line is approximately six hundred ninety-five (695) feet west of the west line of Calendonia Street).

Limit Street shall be opened up between John Street and the railways west right-of-way line by the railroad company, as more particularly set forth in Section 6 and Section 2, Paragraph 2, herein.

South Street shall be closed and vacated for the width of the right-of-way of the Chicago and Northwestern Railway.

Section 9: If the failure to remove or make the necessary changes in any of the conduits, pipes, tracks, poles, wires or other property belonging to any utility threatens to delay or hinder the work required to be done by the railway company, then the railway company may make written request upon the utility company or the city, as the case may be, to change its property as ordered in Section 6 herein. If at the expiration of 15 days from such written notice the required work is not done, then the railway company may remove such obstructions to its work, and may claim from the utility company or city, as the case may be, reimbursement for the actual cost of removing such obstruction.

Section 10: When the railway company shall have completed the work herein required of it in accordance with this order, then and thereupon all the provisions of the ordinances of the city relating to the operation of engines and trains and the maintenance of crossing protections or regulations of any kind appertaining thereto, shall cease to be applicable to the railway within the limits of this order. Provided, however, that nothing in this order contained shall be construed as a waiver or surrender by the city of any of its police powers, or the right at any time hereafter to properly exercise such powers.

Section 11: The dates by which time the work herein ordered shall be commenced and

completed will be announced in a supplementary order to be issued for that purpose.

Section 12: The cost of carrying out this order shall be borne by the different interests involved according to the distribution of the work as set forth in Section 6 herein, with the following exceptions, viz.:

The city shall reimburse the railway company for all sums actually paid by it to property holders for damages sustained by reason of street vacations or changes in street grades made necessary by reason of the provisions of this order.

The city shall reimburse the railway company for one-half ($\frac{1}{2}$) of all sums actually paid by it for property acquired for new streets and for their improvements, as set forth in Section 6 herein.

The city shall reimburse the railway company for all sums actually paid by it for property acquired for the extension of Limit Street, as set forth in Section 6 herein.

Section 13: Upon completion of the work

herein ordered the same shall be maintained by the parties at interest according to the distribution of the work, as set forth in Section 6 herein, with the following exceptions, viz.:

The city shall assume responsibility for all maintenance and for all future renewals or improvements in new streets, and on the extension of Limit Street, as more particularly described in Section 6 herein, such expenditures to be met as provided for in its charter or ordinances.

The maintenance and renewals of the street surface within the street car track zone, shall rest between the city and the street railway company, as is provided by city charter or ordinance.

Section 14: This Commission reserves the right to decide any matters arising from this order about which there may be a difference of opinion between any of the parties in interest. Any such party, or parties, may refer to this Commission such questions as may arise prior to or during progress of the work.

APPENDIX B

Land Subdivision Rules

As Adopted by the City Plan Commission, May 20, 1924

Rule 1—Any owner of land situated within the corporate limits of the City of Kenosha, or situated outside the corporate limits of the City of Kenosha and within one and one-half miles of said corporate limits, wishing to divide the same into building lots for the purpose of sale or assessment, or both, and to dedicate streets and alleys or other lands for public use, shall submit two copies of a preliminary plat to the City Plan Commission of the City of Kenosha, which preliminary plat shall be first approved by said City Plan Commission before submission of a final plat by the owner. Such preliminary plat shall be drawn on a scale of not less than one hundred (100) feet to the inch, and shall show:

(a) The location of property lines, buildings, water courses, and other existing features;

(b) The location and width of existing streets, alleys, lots, and building lines, and similar facts regarding property immediately adjacent;

(c) The name under which the proposed subdivision is to be regarded, with the name of the owner;

(d) The names of all adjoining subdivisions;

(e) The location of existing sewers and water mains;

(f) Upon request of the City Plan Commission, the owner shall present a contour map showing contour intervals of not less than three (3) feet. All elevations shown upon said contour map shall refer to the datum plane of the City of Kenosha.

Rule 2—(a) As soon as convenient after the submission of such preliminary plat to the City Plan Commission, such Commission shall have the proposed plat checked by the City Engineer for the purpose of determining the accuracy of the survey.

(b) After a report of the City Engineer relative to the accuracy of the survey, the City Plan Commission shall approve or disapprove the preliminary plat. The approval of the preliminary plat by the Commission shall not constitute an acceptance of the subdivision.

Rule 3—(a) After the approval of the preliminary plat, the owner of the property pro-

posed to be platted shall prepare a final plat in duplicate and drawn on tracing cloth.

(b) The final plat shall show:

1. A correct survey of the property proposed to be platted.

2. The exterior boundaries of the property, showing the location of the proposed subdivision or plat with reference to the government section line and corner; the boundary lines of all proposed streets and alleys, and any other portions of said property intended to be dedicated to the public use. Such plat shall also show the lines of all adjoining properties and the line of adjacent streets and alleys, with their names. All streets in the proposed subdivision shall be named, and in case of branching streets, the line of departure from one street to another shall be indicated.

3. All lot lines shall be shown, and lots and blocks numbered.* Building lines and easements shall be shown and determined by measurements. All corner lots shall be so platted as to maintain the full set-back as required by the Zone Ordinance of the City of Kenosha on both streets.

4. All necessary dimensions, both lineal and angular, shall be shown. The lineal dimensions shall be expressed in feet and decimals of a foot. The description and location of all survey monuments erected in the subdivision shall be shown upon such plat. Permanent monuments erected in such subdivision of galvanized iron pipe shall be not less than two (2) inches in diameter and thirty (30) inches in length; and if of stone or concrete, shall be not less than four (4) inches in diameter and twenty-four (24) inches in length. Permanent monuments shall be erected at all street corners and at all points where street lines intersect the exterior lines of the proposed subdivision. The owner of the land proposed to be platted shall comply with the requirements of Chapter 101 of the Revised Statutes of the State of Wisconsin in the laying out and platting of said subdivision, except that the size of the monuments shall be as herein defined.

5. There shall be presented with each plat profiles of all streets and alleys in said subdivision (40 feet horizontal scale and 6 feet vertical scale recommended). All streets in said subdivision shall, so far as possible, conform to the contours to avoid grades in excess of three (3) per cent.

Rule 4—Any person owning any tract of land, wishing to subdivide the same into tracts larger than building lots, shall divide such land in such a manner as to allow for the opening of major streets and the ultimate extension of adjacent minor streets.

Rule 5—(a) The widths for major streets shall conform to the widths designated on the major street plan.

(b) The minimum width of secondary streets as designated on the major street plan shall be sixty (60) feet.

(c) The minimum width for minor streets and courts shall be fifty (50) feet, except in cases where the typography or special conditions make a street of less width more desirable.

(d) The minimum width of any alley shall be eighteen (18) feet, except that where both sides of the alley abut residential property a fifteen (15) foot alley may be used with an easement and building line on both sides of at least one and one-half (1½) feet, and a five (5) foot cut-off at all acute corners.

(e) Where alleys are not provided, easements of not less than four (4) feet in width shall be provided on each side of all rear lot lines, and side lines where necessary for poles, wires, conduits, storm and sanitary sewers, gas, water and heat mains. Easements of greater width may be required before approval of the plat by the City Plan Commission along lines or across lots where necessary for the extension of main sewers and similar public utilities.

Rule 6—(a) No block in said subdivision or plat shall be longer than one thousand (1,000) feet between street lines. Blocks over seven hundred fifty (750) feet in length shall have one passageway through said block for pedestrians, not less than ten (10) feet in width and situated as near as may be to the center of the block.

(b) Where the owner desires to divide any tract of land which, because of its size and location, cannot be divided or platted so as to be directly related to a normal street arrangement, there may be established a "place." Such "place" may be in the form of a court, a non-connecting street or other arrangement, provided, however, that proper access shall be given to all of the lots in said "place" from a dedicated place, street or court, and the minimum size of each lot shall be permanently established so as to assure a building arrangement commensurate with the foregoing requirements for normal places. In new subdivisions at a distance from existing subdivisions, block widths shall be established at approximately two hundred fifty (250) feet.

Rule 7—(a) In all rectangular lots and so far as possible in all other lots, the side lines shall be at right angles to the street on which the lot faces. Lots with double frontage shall be avoided.

(b) The minimum dimensions for regular shaped lots shall be forty (40) feet for width, and one hundred (100) feet for depth, and in no case shall an irregular-shaped lot contain less than five thousand (5,000) square feet.

(c) Corner lots shall have extra width, sufficient to permit the maintenance of building lines on both front and side. In normal cases the width required shall be not less than the amount of the established building line on the side street, plus the irreducible buildable width and side yard requirements of lots as determined by the Zone Ordinance of the City of Kenosha.

(d) Lots on major street intersections and at all other points likely to be dangerous, shall have a radius of not less than fifteen (15) feet at the street corner.

Rule 8—Building lines, which shall be not less than required by the Zone Ordinance of the City of Kenosha, shall be shown on all lots for residential use of any character.

Rule 9—The following regulations should be complied with before the acceptance of any plat:

(a) A grading plan shall be prepared and submitted with the final plat showing the grades approved by the City Engineer before the final plat shall be approved.

(b) The grading of all streets and alleys and areas to be devoted to the public use shall be completed to approve grades or surety bond given by the owner for compliance with this provision before such final plat shall be approved. The amount of the bond and the time allowed for the completion of the grading shall be determined by the City Engineer.

(c) In subdividing property, due consideration shall be given to the dedication of suitable sites for schools, parks, and playgrounds. Such provisions shall be indicated on the preliminary plat in order that when and in what manner such areas shall be dedicated to the City may be determined.

(d) The City Plan Commission, where possible, will require the owner to dedicate for public purposes, such as parks, playgrounds, and school sites, an area not more than five (5) per cent of the total area of the tract of land proposed to be platted, except where in the opinion of such Commission five (5) per cent of the area is too small for parks, playgrounds, and school sites; then no public dedication of said tract shall be required. The five (5) per cent hereinbefore referred to shall be exclusive of any area of said tract of land dedicated for streets and alleys.

Rule 10—The size, location, and variety of street trees on all plats shall conform to the requirements of the City Plan Commission established in conjunction with the Department of Parks and Public Properties.

Rule 11—The City Plan Commission shall consider such plats as may be referred to it by the City Council, and after such plats have been made to conform to the rules and regulations of the City Plan Commission, the said City Plan Commission shall promptly return such plat to the City Council, together with its report and recommendation thereon.

Rule 12—Building line restrictions for residential property shall provide that all enclosed portions of any and all buildings shall be set back from the street property line a distance at least equal to the minimum required hereinbefore.

Wherever property is subdivided with the intention that it shall have a use higher than that designated on the Zone Plan, such use shall be stated and the building lines and other rules affecting such higher use shall be shown and noted on the plat. Such designation shall also constitute a petition to the City to change the use designation for such property on the Zone Plan.

Rule 13—The final plat submitted to the City Plan Commission shall be accompanied by a certificate of title showing the ownership of all property to be dedicated to the City.

APPENDIX C

Wisconsin Statutes---1921---Chapter 62, Section 23

CITY PLANNING LAW

(1) **Commission.** (a) The council of any city may by ordinance create a "City Plan Commission," to consist of the mayor, who shall be its presiding officer, the city engineer, the president of the park board, an alderman,

and three citizens. In case the city has no engineer or no park board, an additional citizen member shall be appointed so that the board has at all times seven members. Citizen members shall be persons of recognized experience and qualifications. They shall

receive no compensation for service on the commission.

(b) The alderman member of the commission shall be elected by a two-thirds vote of the council, upon the creation of the commission, and during each April thereafter.

(c) The three citizen members shall be appointed by the mayor, upon the creation of the commission, to hold office for a period ending one, two, and three years, respectively, from the succeeding first day of May, and thereafter annually during April one such member shall be appointed for a term of three years.

(d) The additional citizen member, if any, shall be first appointed to hold office for a period ending one year from the succeeding first day of May, and thereafter annually during the month of April. Whenever a park board is created or a city engineer appointed the president of such board or such engineer shall succeed to a place on the said board when the term of an additional citizen member shall expire.

(2) Functions. (a) The council shall refer to the city plan commission, for its consideration and report before final action is taken by the council, the following matters: The location and architectural design of any public building; the location of any statue or other memorial; the location, extension, alteration, ornamentation, or parking of any street, park, playground, or other memorial or public grounds; the location and character of lands and buildings for relieving congestion for garden suburbs, or for vacation camps for children within or without the city; and all plats of lands in the city or within one and one-half miles thereof.

(b) The common council may refer to said commission the construction or carrying out of any public work not expressly within the province of other boards or commissions of said city, and may delegate to said commission all powers which the said council deems necessary to complete such work in all details.

(c) The city plan commission may employ expert advice and may have made maps showing proposed additions to or changes in the plan of the city.

(3) Acquiring Land. (a) Cities may acquire by gift, lease, purchase, or condemnation any lands (a) within its corporate limits for establishing, laying out, widening, enlarging, extending and maintaining memorial grounds, streets, squares, parkways, boulevards, parks, playgrounds, sites for public buildings, and reservations in and about and along and lead-

ing to any or all of the same; (b) any lands adjoining or near to such city for use, sublease or sale for any of the following purposes:

1. To relieve congested sections by providing housing facilities suitable to the needs of such city;

2. To provide garden suburbs at reasonable cost to the residents of such city;

3. To establish city owned vacation camps for school children and minors up to twenty years of age, such camps to be equipped to give academic and vocational opportunities, including physical training.

(b) After the establishment, layout and completion of such improvements, such city may convey or lease any such real estate thus acquired and not necessary for such improvements, with reservations concerning the future use and occupation of such real estate, so as to protect such public works and improvements, and their environs, and to preserve the view, appearance, light, air and usefulness of such public works, and to promote the public health and welfare.

(c) The acquisition and conveyance of lands for such purpose is a public purpose and is for public health and welfare.

(4) Lakes and Rivers. The city may improve lakes and rivers within the city and establish the shore lines thereof so far as existing shores are marsh.

(5) Industrial Districts. (a) The council may by ordinance regulate the location of industries and of buildings designed for specific uses, and such regulation is declared to be for public health, safety and welfare. This subsection shall be liberally construed in favor of the city and not as a repeal of any power elsewhere granted.

(b) Districts may be established and regulations made for each prohibiting or regulating any particular industry or use of buildings therein.

(c) The city plan commission, or if the city has none such, a city plan committee of the council, shall upon request of the council, recommend the district plan and regulations for the city. Tentative recommendations shall first be formulated and public hearings held thereon. After submission of the final recommendations, the council may from time to time change the districts and regulations, as recommended or as adopted, upon giving at least ten days' notice, by publication in the official paper at least three times in such ten days, of the proposed changes and of hearing thereon, and opportunity to any person interested to be heard. If the owners of twenty

per cent of the frontage proposed to be changed, or of the frontage immediately in the rear thereof, or directly opposite thereto, shall protest in writing signed and acknowledged, the change shall require a three-fourths vote of the council.

(d) The continued use of a building or premise for an industry or use for which the same are used at the time any ordinance under this subsection shall take effect, shall not be prohibited, but alteration of or additions to buildings for the purpose of prohibited industry or use may be forbidden.

(6) **Building Districts.** (a) The council may by ordinance regulate the size of buildings hereafter erected and the area of yards, courts, and other open spaces, and such regulation is declared to be for public health, safety and welfare. This subsection shall be liberally construed in favor of the city and not as a repeal of any power elsewhere granted.

(b) To carry out this power, districts may be established, and regulations, which may differ between districts, but shall be uniform for each class of buildings within each district, may be made in the manner provided in paragraph (c) of subsection (5), except that if the city has a board of public land commissioners, the duties therein imposed upon a city plan committee of the council shall rest upon such board.

(7) **Fire Limits.** The council may by ordinance designate general fire limits and regulate for fire prevention, the construction, alteration, enlargement and repair of structures within such limits, and may designate special fire limits within the general limits, and prescribe additional regulations therein. The council may change such regulations by a three-fourths vote.

(8) **Board of Appeals.** (a) The council may by resolution establish a board of appeals to consist of five members appointed by the mayor for terms of three years without compensation, one of whom shall be an architect or structural engineer of not less than ten years' practical experience. The mayor shall designate one of the members chairman. The board shall employ a secretary and other subordinates.

(b) The board of appeals shall review any order requiring decision or determination made by an administrative official charged with the enforcement of any ordinance adopted pursuant to subsections (1) to (7) of this section. Such board shall also hear and determine all matters referred to them or upon which they are required to pass under any ordinance of the council adopted pursuant to such subsections. The concurring vote of four members of such

board shall be necessary to reverse any order requiring decision or determination of any such administrative official or to decide in favor of the applicant any matter upon which they are required to pass under any such ordinance or to effect any variation of such ordinance. Every decision of such board shall, however, be subject to review by certiorari. Such appeal may be taken by any person aggrieved or by any officer, department, board or bureau of the city.

(c) Such appeal shall be taken within such time as shall be prescribed by the board of appeals by general rule, by filing with the officer from whom the appeal is taken and with the Board of Appeals a notice of appeal specifying the grounds therefor, shall forthwith transmit to the board all the papers constituting the record upon which the action appealed from was taken.

(d) Such appeal shall stay all proceedings in furtherance of the action appealed from, unless the officer from whom the appeal is taken certifies to the board of appeals after the notice of appeal shall have been filed with him that by reason of facts stated in said certificate, a stay would, in his opinion, cause imminent peril to life or property, in which case proceedings shall not be stayed otherwise than by a restraining order which shall be granted by the board of appeals or by a court of competent jurisdiction, on application, on notice to the officer from whom the appeal is taken and on due cause shown.

(e) The board of appeals shall fix a reasonable time for the hearing of the appeal and give due notice thereof to the parties and decide the same within a reasonable time. Any party may appear on such hearing in person or by agent or by attorney. Said board may reverse or affirm, wholly or partly, or may modify the order, requirement, decision or determination appealed from, and shall make such order, requirement, decision or determination as in its opinion ought to be made in the premises, and to that end shall have all the powers of the officer from whom the appeal is taken.

(f) Any person or persons, jointly or severally, aggrieved by any decision of the board of appeals, or any officer, department, board or bureau of the city, may present to a court of competent jurisdiction a petition, duly verified, setting forth that such decision is illegal, in whole or in part, specifying the grounds of illegality. Such petition must be presented to such court within thirty days after the filing of the decision in the office of the board.

(g) Upon presentation of such petition, said judge or court may allow a writ of certiorari

directed to the board of appeals to review such decision of the board of appeals, which shall prescribe therein the time within which a return thereto must be made and served upon the relator or his attorney, which shall not be less than ten days, and may be extended by the court. The allowance of the writ shall not stay proceedings upon the decision appealed from, but the court may, on application, on notice to the board and on due cause shown, grant a restraining order.

(h) The board of appeals shall not be required to return the original papers acted upon by it, but it shall be sufficient to return certified or sworn copies thereof or of such portions thereof as may be called for by such writ. The return must concisely set forth such other facts as may be pertinent and material to show the grounds of the decision appealed from and must be verified.

(i) Said court may take evidence or appoint a referee to take such evidence as it may direct and report the same to the court with his findings of fact and conclusions of law, which shall constitute a part of the proceedings upon which the determination of the court shall be made. Costs shall not be allowed against the board unless it shall appear to the court that it acted with gross negligence or in bad faith.

(9) **Building Inspector.** For the enforcement of all ordinances and laws relating to buildings, the council may appoint a building inspector and define his authority.

(10) **Widening Streets.** (a) When the council by resolution shall declare it necessary for the public use to widen any street, or a part thereof, it may proceed as prescribed in chapter 32 of the statutes, except as herein modified. If the jury shall determine that the taking of the lands is necessary, the council may affirm or reject the verdict by resolution, accurately describing the land. Resolution affirming the verdict shall not be a taking, but shall be an establishment of new future boundary lines.

(b) After such establishment no one shall erect any new structure within the new lines, nor rebuild or alter the front or add to the height of any existing structure without receding the structure to conform to the new lines. No damages shall be received for any construction in violation hereof.

(c) The council may at any time after the establishment of new lines provide compensation for any of the lands to be taken, whereupon such lands shall be deemed taken, and the required further proceedings shall be commenced.

(d) If a structure on lands thus taken is not removed after three months' written notice served in manner directed by the council, the city may cause it to be removed, and may dispose of it and apply the proceeds to the expense of removal. Excess proceeds shall be paid to the owner, and excess expense shall be a lien on the rest of the owner's land abutting on such street, and if not paid shall be assessed against such land and collected as are other real estate taxes. If the owner does not own the adjoining piece of land abutting on the new line, he shall be personally liable to the city for the expense of removal.

(e) Until the city has taken all of the lands within the new lines, it may lease any taken, to the person owning same at the time of taking, at an annual rental of not more than five per cent of the amount paid therefor by the city or of the market value, if donated. Improvements may be maintained on such leased lands until all lands within the new lines are taken, whereupon they shall be removed as provided in paragraph (d). No damages shall be had for improvements made under such lease.

(11) **Building Lines.** (a) The council may by ordinance, in districts consisting of one side of a block or more, establish the distance from the street that structures may be erected. The city engineer shall thereupon make a survey and plat, and report the same, with description of any structure then situated contrary to such ordinance, to the council.

(b) The council may by ordinance make such regulation or prohibition of construction on any parts of lots or parcels of land or on any specified part of any particular realty, as shall be for the public health, safety or welfare.

(c) Whenever to carry out any ordinance under this subsection it is necessary to take property for public use, the procedure of chapter 32 of the statutes shall be followed.

(12) **Vacation Camp Courses.** A course of academic and vocational study, including physical training, shall be provided by the city board of education, for vacation camps established under subsection (3).

(13) **Funds.** Funds to carry out the purposes of this section may be raised by taxation or by bonds issued as provided in sections 67.05, 67.06, 67.07, 67.08 and 67.10. (Stats. 1919 s. 925—52 sub. 65, 76, 925—73, 959—17a, 759—17p—959, 35m; 959—35n; 1921 c., 242 s., 218 to 233; 1921 c. 557; 1921 c., 590 s., 104 to 107).

