

PRELIMINARY
MAJOR STREET PLAN
AND
TRANSIT PLAN



CITY PLANNING COMMISSION
DULUTH, MINNESOTA

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AND
TRANSIT PLAN



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CITY PLANNING COMMISSION
City of Duluth

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City Planning Commission

Duluth, Minnesota,
February 20th, 1927.

To The Honorable City Council,
Duluth, Minnesota.

Gentlemen:

The City Planning Commission takes pleasure in submitting herewith preliminary plans for comprehensive major street and transit systems for the City of Duluth.

These plans have been made with a vision of the day when all land within the present city limits will be fully developed, and population settling in territory adjacent. These systems are designed to bring about a truly united Duluth, giving every section direct and easy-grade access to every other section throughout the city's 26 miles of length and its 62.5 square miles of area. Duluth is also given full access to surrounding territory.

It is not intended that these systems should be built in whole now or at any particular time. It is hoped that these plans shall serve as guides in the gradual development of Duluth. Many years must elapse and great growth must take place, before such comprehensive plans as these can be carried out in their entirety. As new lands are platted, as vacant areas are brought into use, main traffic arteries and transit routes should be built in accordance with these recommendations. This procedure will give Duluth an adequate street and transit system, constructed in an orderly and logical manner, and with an efficiency and low tax burden that is impossible with unplanned development.

Large sums must in time be spent in order to carry out all these recommendations, but the amount of money needed will be reduced greatly if the city authorities control new platting within its area, as urged in the body of this report.

The design of these comprehensive systems was based upon use of the incomplete topographic maps now available, supplemented by personal field inspection. Location of some of the individual projects herein recommended, should be considered, therefore, as only approximate. Exact engineering surveys must precede final location of any such improvement.

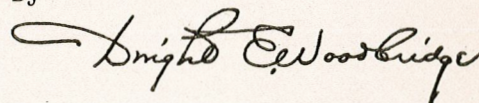
Several street projects have been found necessary to remedy defects in present traffic circulation. These are recommended for immediate consideration. A list of these will be found on page 9.

It is almost useless to prepare such plans as these unless they are to become a guide for development. Therefore we urge that you study them carefully, together with the fundamental arguments that are advanced in the report, and adopt them as a basis for street extensions and transit orders.

Respectfully submitted,

CITY PLANNING COMMISSION,

By



President.

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Major Street Plan

Introduction

The objective of your Commission is to present, in a series of reports such as this, a broad, scientific view of the future city. The purpose of these studies is to discover why Duluth has taken its present form, how its physical make-up aids or hinders those normal activities for which the city exists, and what advantageous changes may be effected in the structure of the city by intelligent planning for and control of future development.

The chief structural weaknesses in Duluth are of two classes, those which have resulted from failure to anticipate growth, and those due to technical faults in adjusting the structure of the city to the ground. These defects are everywhere in evidence. The most important economic feature of Duluth, the water front area, is too much cut off from the general street system. There are a number of important grade crossings. Streets have been platted up and down hills at prohibitive grades. There are too many cross streets. Street jogs are to be found frequently. Street access between the various developed sections is very limited.

Duluth fills an important place in the economic life of the nation. Its favorable location is a guarantee of continued growth. Only those who live in Duluth or know its internal problems realize the difficulties under which this growth must take place. Few cities have gone as far in subjecting a forbidding site to intensive city use. The wonder is that Duluth has been able to make such progress, that haphazardness in building the city has not done greater harm.

In the case of street development, foresight and skill are especially necessary, for the terrain has introduced serious construction problems which must be solved before the city can expand and develop in an orderly fashion. It is clear that the land which lies immediately above the waterfront was not created to favor the easy building of a great city. Steep rock bluffs have always challenged the resources and ingenuity of town builders. There is scarcely a city in this country built on such land which has a street system perfectly adapted to the site. The waste areas, the absurd street grades, the inaccessible lots in Duluth are matched in San Francisco, Pittsburgh, Seattle, Kansas City and other communities built under similar conditions. Abroad, the art of adapting the street pattern of a growing city to rugged terrain has been mastered; here, the science has not yet been learned.

This report on major streets aims to provide that larger view of the city which is needed, and to outline the basic planning principles which must be followed if a suitable city-wide system of traffic arteries is to be secured. The point of view is largely anticipatory. As Duluth continues to grow, a new system of thoroughfares will be needed. To secure this system, properly balanced and so arranged as to facilitate economical city growth, there is required, first, a general major street plan, second, a conservative program

of timely changes in old streets and, finally, constant application of approved planning principles to new street platting. Studies of Duluth tend to show that the chief present need from a city planning standpoint is not so much spectacular and expensive corrective measures, such as street widenings and openings, as ability to control new growth along proper lines. This fundamentally is the purpose of a city plan.

Duluth, more than most cities, needs a reliable topographic survey of the area over which future growth will spread. The lack of such surveys has been largely responsible for many of the indefensible stupidities encountered in attempting to get about in the city. The lack of accurate knowledge of natural grades has hindered the development of the technique of laying out streets. It has proved a handicap in the preparation of this study. A comprehensive topographic survey of that portion of the city's area which remains unimproved and unused should be undertaken at the earliest possible moment.

Supplementing this factual knowledge of the ground upon which new streets are to be built should come statutory authority to enable the municipality to control street platting. Without the power to require real estate promoters to observe well established principles of good land subdivision, the advantages of a city plan are lost to a considerable degree. The influence of the entire plan is affected by the initial determination of street and lot arrangement in any new subdivision. Seemingly inconsequential decisions of land owners and their agents actually shape the economic and social destinies of the city. It is futile to visualize a greater and better city and express such visions in a well-considered plan, if this plan can be ignored or flouted at the will of individuals. The community has rights which deserve protection and it is an obligation of municipal officials to extend this protection through exercise of reasonable control over land platting. The City of Duluth does have power now to review plats before they are recorded, but the authority of the city is limited and at present almost negligible. A new state act is needed giving the city full authority to regulate and direct land subdivision and compelling recognition of the major street plan and other protective measures devised by the City Planning Commission.

Official support in the way of securing needed surveys and more effective legislation will greatly enhance the value of this and other city plan reports. Few plans of any sort are worth their cost if they are not followed. This plan is not an end in itself but only a means to an end and that end is the betterment of circulation throughout all Duluth. It will have slight chance of demonstrating its value unless its general principles are accepted in official circles. Whenever street improvements are considered the major street plan should be a factor in the correct determination of what is best for Duluth.

Summary of Recommendations

1. The basic value of a city plan is in its preventive influence. It tends to stop mistakes. This influence must occasionally have legal support. There should be a law in Duluth requiring the submission of all land plats within the city and for three miles beyond its limits to the City Planning Commission for its approval before submission to Council and giving the Council full authority to withhold its sanction and prevent the acceptance of a plat submitted for record that does not have its final approval.

2. Before a plan, dependable in all details, can be prepared for a system of major highways beyond the present build-up sections of the city, more thorough surveys of outlying districts will be required. An accurate topographic map of the city is needed. Such a map would be used in all phases of city planning work and for many of the normal activities of the City Engineer's Office, Water and Light Department, Park Department, Board of Education and other public and semi-public agencies.

3. A considerable portion of the corporate area of Duluth is now largely vacant or in agricultural use. From time to time this land is platted for city purposes. The City Planning Commission aims to enlist the aid of realtors and others interested in an effort to elevate the standards and improve the practice of land subdivision in and around Duluth. This department of the city government should be the clearing house for suggestions and methods by which acreage may be converted into city lots with advantage and profit both to owner and community.

4. In certain portions of Duluth, platting methods unsuited to topographic conditions have been used, with the result that streets are practically useless and lots remain inaccessible. Conditions are such in some of these additions that a rearrangement is possible and very desirable from every standpoint. The City Planning Commission aims to promote the replatting of as much of Duluth area as may be improved in this manner. A special study of the possibilities of increasing the amount of usable property should be undertaken. The difficulties attending the rearrangement of plats, the preparation of surveys, the development of new street schemes should be set forth against the increased value of more attractive lots and the added revenues derived by the City as a consequence of the improvement in street and lot arrangement.

5. The present street system of Duluth has developed without a distinction being made between major and minor traffic ways. A clear and if possible official designation of the former should now be made. The major street plan should become the standard guide for public improvements having city-wide significance. The major street plan will aid municipal authorities in finding a proper solution for problems such as the following:

a. The extension of new streets to open desirable residential or industrial areas.

b. The preparation of street improvement plans so that public funds will not be wasted in haphazard, unrelated projects.

c. The determination of logical and systematic street car and bus routes.

d. The selection of pavement widths and types for the various streets.

e. The location of schools, fire-stations, playgrounds, parks and other municipal features which should be placed with special reference to busy traffic streets.

f. The preparation of plans for street planting or street lighting.

6. With regard to specific street improvements, the findings of this survey are as follows:

a. The street improvements needed in Duluth are relatively few in number and in the matter of urgency should not be given precedence over other civic needs, such as parks, sewers, pavements and the like when all are set down in order of importance.

b. The undertaking of costly street improvements such as arcades, lengthy widenings, double-deck streets, vehicular tunnels and similar projects which even metropolitan communities finance with difficulty, are not justified.

c. A group of correlated street improvements is proposed in the central portion of Duluth, i. e., from 33rd Ave. W. to 12th Ave. E., to encourage the development of a business district, rather than a single favored business street. The execution of this plan can be carried over a long period of years. These improvements are:

1. Extension of West Superior St. from 34th Ave. W. to Grand Ave., on a line parallel to the Northern Pacific Ry.

2. Extension of 2nd St. to Vernon.

3. Extension of Vernon St. from a point beyond Anson to connect with a proposed east and west hillside extension of West 10th St. This would bring Vernon St. into 40th Ave., north of the D. M. & N. Ry.

4. Extension of 10th St. from the new Lincoln Park bridge to a connection with West 8th St. over the D. M. & N. tracks and a connection with the Haines road north of the D. M. & N. Ry. This will enable traffic entering the city over Haines Road to avoid the grade crossing on 40th Ave. It will also provide a high line east and west street and open considerable residential land in this section.

5. Third St. has a comparatively light grade up to 20th Ave. W. and should be a fully usable street to this point. At about 20th Ave. a new line should be laid out for 3rd St. to carry traffic eastward over the hill

to 1st St. at about 14th Ave. W. Piedmont Ave. can be crossed at grade.

6. Second St. at 4th Ave. W. should be swung up the hill and carried around the Court House to Mesaba Ave. This 2nd St. route should be carried into 1st St. west of 8th Ave. by an easy gradient traffic way.

7. Third St. east of the point of rocks should be connected by easy grade at Mesaba Ave. with the 2nd St.-W. 3rd St. route. This will give 3rd St. a good outlet to the city west of the Point of Rocks.

8. First St. should be rebuilt on the Central Bluff as part of the 3rd St. through route. A new and more favorable alignment and grade on this street should be established between Mesaba Ave. and the proposed connection with W. 3rd St.

9. Extension of Washington Ave. directly to 4th St. The usefulness of 1st, 2nd and 3rd Streets will be greatly enhanced by the improvements suggested in paragraphs 5, 6, 7, 8, but an extension of Washington Ave. from 1st to 4th is recommended as an additional means of improving circulation through the central business district.

10. Superior St. should be improved between 8th Ave. W. and 14th Ave. W. on platted lines on a grade not exceeding 5%, and a connection introduced to 1st St. and the Observation Hill district.

d. There are numerous other streets in Duluth which will require widening if the city grows to any considerable size in the next 15 or 20 years. Building lines should be established on the streets named below, in anticipation of the need of increased traffic capacity.

STREET	FROM	TO	Present Width	Proposed Width	Building Line on Each Side
Fond du Lac Road	Commonwealth	Wisconsin Br.	66'	80'	7'
McCuen St.	Commonwealth	Oliver Bridge	66'	80'	7'
Becks Road	Gary Street	City Limits	66'	80'	7'
LeSue St.	Dock Line	50th Ave.	66'	80'	7'
Raleigh	53rd	Grand	66'	80'	7'
53rd Ave. W.	D.W.P.R.R.	Raleigh St.	66'	80'	7'
Cody	Grand Ave.	59th Ave. W.	66'	100'	17'
Worden & No. 1 Highway	59th	City Limits	66'	100'	17'
Piedmont Ave.	Superior St.	Hermantown Rd.	66'	80'	7'
Garfield Ave.	Superior St.	Interstate Br.	75'	90'	7½'
Hutchinson-Morris Thomas Rd.	Piedmont	City Limits	66'	100'	17'

STREET	FROM	TO	Present Width	Proposed Width	Building Line on Each Side
Miller Trunk	6th Ave. W.	Trinity	66'	80'	7'
	Trinity Rd.	City Limits	66'	100'	17'
W. 3rd	(Ore Docks) D.M.&N.	20th Ave. W.	66'	80'	7'
	Cody St.	39th Ave. W.	80'	100'	10'
4th	Mesaba Ave.	Vermillion Rd.	66'	80'	7'
6th Ave. E.	2nd	9th	66'	80'	7'
Kenwood Ave.	6th Ave. E.	St. Marie St.	66'	100'	17'
Howard-Gnesen Rd.	St. Marie St.	City Limits	66'	100'	17'
Jean Duluth Rd.	Snively Rd.	City Limits	66'	100'	17'
9th St.-8th St.	Woodland	6th Ave. E.	66'	80'	7'
Vermillion Rd.	Wallace Ave.	Snively Rd.	66'	80'	7'
Snively Rd.	Vermillion Rd.	Jean Duluth Rd.	66'	80'	7'
Superior St.	9th Ave. E.	44th Ave. E.	66'	80'	7'
	44th Ave. E.	53rd Ave. E.	40'	55'	
	53rd Ave. E.	54th Ave. E.	56'	80'	12'

A complete list of streets recommended for eventual development as part of the major street plan is given in Appendix A.

e. Several street improvements are needed at this time to correct faulty spots in the circulation system, and are hereby recommended for immediate consideration.

Worden St. should be widened to 100 feet and connected directly with W. 8th St. and with Cody at 59th.

Gilbert St. should be brought into use as a direct connection between Grand Ave. and Superior St. This will remove the menace of heavy traffic in the vicinity of Harrison Playground and the Bryant School.

Michigan St. should be connected with Oneota St. and Halifax or Rene St. and made one of the direct approaches to the new Grassy Point bridge.

There should be direct routes from the Grassy Point bridge to the east, to the north, and to the west. A viaduct should be constructed from LeSue St. to 53rd Ave. W. at Raleigh St., crossing all railroad tracks overhead. The north and west routes should be made by extending and widening Raleigh St. from 53rd Ave. W. to Grand Ave., thus effecting good connection with the street system in this district and the districts to the north and west. The route to the east should be made by ex-

tending and widening 53rd Ave. W. from Raleigh St. to Halifax St. or Rene St., (such extension to pass north of the Duluth Showcase factory), the improvement and use of Halifax or Rene St. and a connection easterly with Superior St. and Helm St.

A more direct approach should be opened to Rice's Point bridge by eliminating the sharp turn at Garfield and Pine Avenues.

Another separate thoroughfare should be provided between the main business district and W. 3rd St.-Grand Ave. by widening 2nd St. from 12th Ave. E. to 4th Ave. W. and extending this street around the Court House and connecting by easy grades with W. 3rd St. at 20th Ave. W.

A highway should be extended into the Observation Hill district from the proposed 2nd St.-3rd St. connection. An easy grade street will open this territory for intensive development and will afford surface access (instead of the incline) from Duluth Heights car line to downtown. It will also afford good access to Enger Park and the golf grounds.

Sixth Ave. E. will carry the Central Entrance traffic. A building line should be established to provide for its future widening from the Central Entrance at 9th St. to 2nd St.

Superior St. should be widened from the junction with London Road to the east city limits. A building line should be established now in anticipation of this widening.

General Plan of Duluth and Vicinity

Plate One.

Duluth and Superior together constitute the community which stands at the Westernmost end of Lake Superior. The St. Louis River enters the lake at this point and has contributed to the formation of one of the most attractive harbors found on the continent. The Duluth-Superior Harbor is the reason for the existence of the two cities. Any marked change in water transportation vitally affects the upbuilding of these cities.

Duluth is the larger in both population and area. In the latter respect it is unique. The corporate area of the city in 1925 was 39,915 acres, but only a relatively small proportion of this vast territory is devoted to urban uses. The administration of 62 square miles even though a large part of it is unimproved property, is a serious problem.

The natural formation of the land along the Duluth side of the lake is responsible for the peculiar shape and characteristics of the city. Along the waterfront is a narrow strip sloping gradually toward the water. Inland this strip merges at varying distances back with the slopes of a steep ridge of rock which rises to summits 500 feet or more above the lake. From this ridge to the water's edge is rarely more than a mile and in this territory is concentrated by far the greater part of what is known as Duluth.

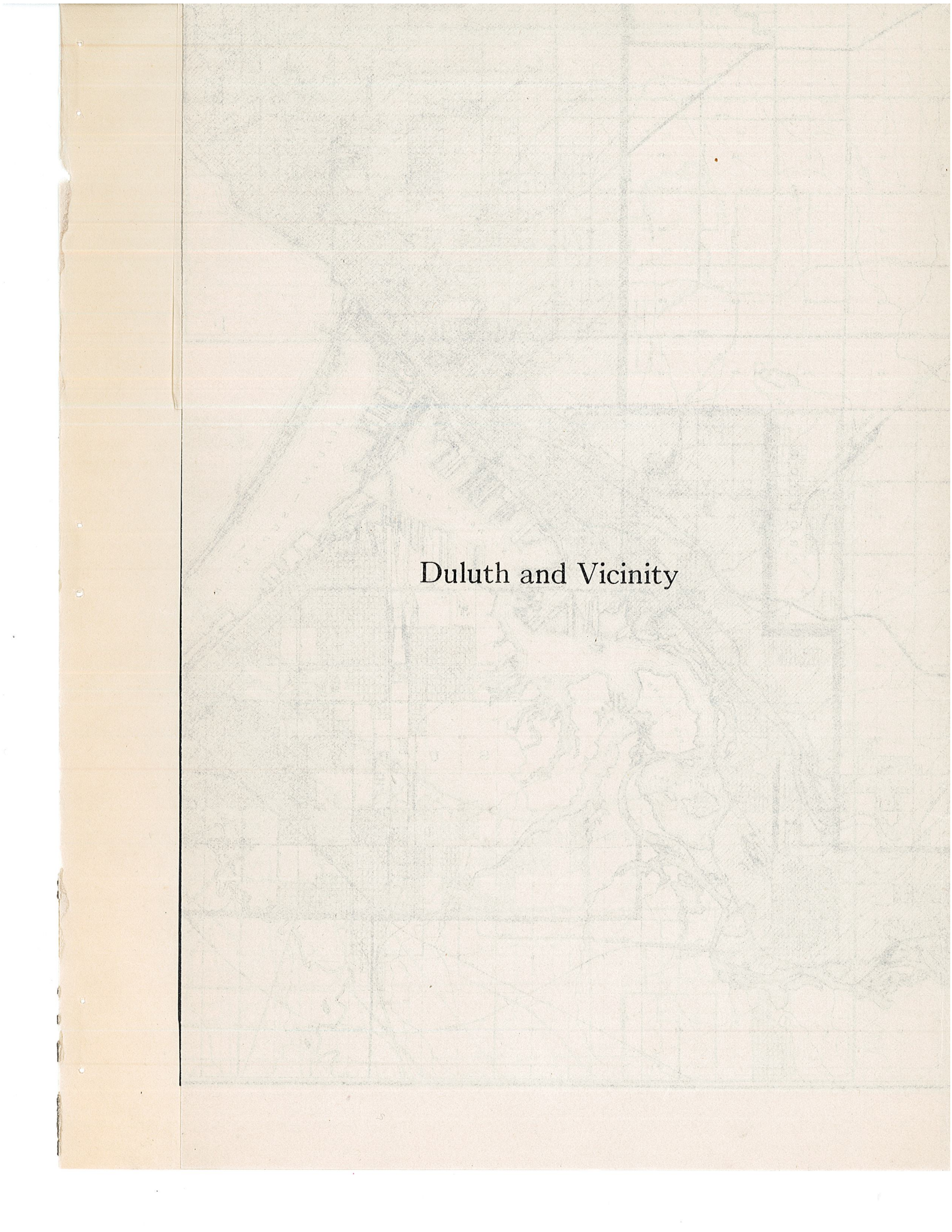
The upland territory is a rolling tableland of rich and rapidly developing country stretching to the Canadian border. Comparatively little of this favorable terrain is used for urban purposes within the corporate limits of Duluth. Many lots and streets have been laid out in the upland sections but they have not been popular because of the difficulty of passing freely and easily from upper to lower levels. The need of correcting this condition frequently has been emphasized and increasing efforts are made each year to improve the means of circulation between waterfront areas and the land beyond the hills.

The chief activities of the Duluth district, aside from

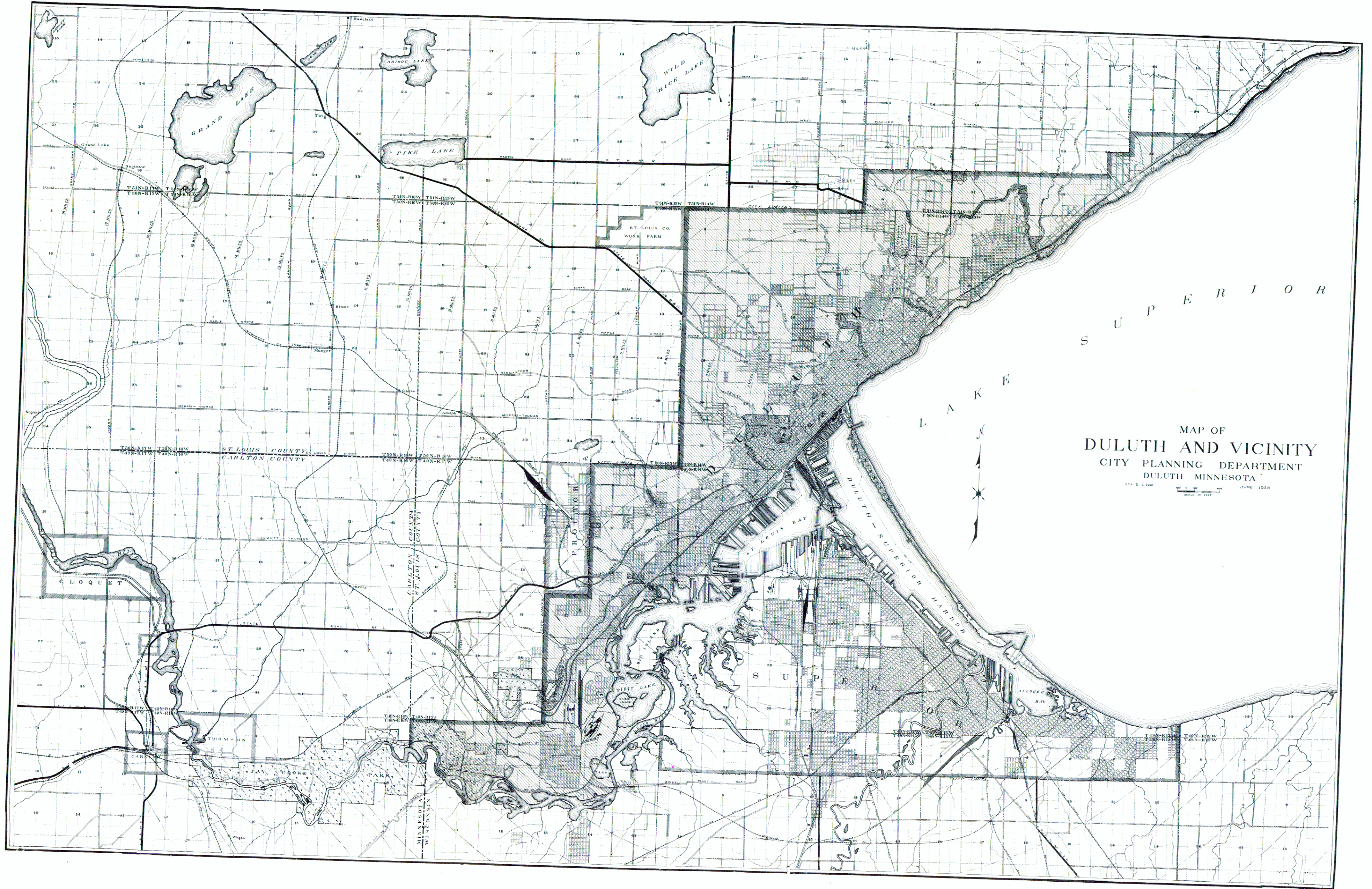
those related to the port, are centered around mining operation in the iron ranges which lie 70 to 80 miles north and west of the city. The principal highways of Duluth lead directly to the Range country. A well established system of railroads connects Duluth with the ore deposits. Tonnage which passes over these roads each year is enormous. Millions of tons are delivered to points on the Duluth harbor and a large proportion of this is transferred from rail to water for shipment to other points. Over these and other lines moves also an enormous volume of grain. The movement of these two principal commodities through this port makes the city one of the economic nerve centers of the nation.

The future of Duluth is bound up with the continuance and improvement of water transportation over the Great Lakes and also with the development of the agricultural resources of the northwest. The hopes of the city are centered upon the opening of the Great Lakes-St. Lawrence Waterway which will make Duluth a port for ocean going vessels. The promise of this improvement has already been capitalized in other cities on the Great Lakes, but when it finally materializes, Duluth will profit immensely. It will cease to be chiefly a transfer point and will become more of a manufacturing and distributing center. Being the westernmost point of deep water, it stands in a position to become the gateway to a vast and rapidly developing region. The prospects stir the imagination and force the query—Has Duluth been built, or can it be improved to meet these demands?

These demands are coming sooner than we realize. They are almost upon us however long it may take to dig the St. Lawrence locks. In 1930 the new Welland Canal will provide a draft of 20 feet from Duluth to and into the St. Lawrence. Then, by the use of low cost barges from Prescott to Montreal the cost of moving freight from Duluth to the sea will be reduced greatly, and an immediate expansion of the Great Lakes business will result.

A faint, light-colored map of Duluth and its surrounding area is visible in the background. The map shows a grid of streets, a river or coastline on the left, and various geographical features. The title "Duluth and Vicinity" is printed in a dark, serif font, centered over the map.

Duluth and Vicinity



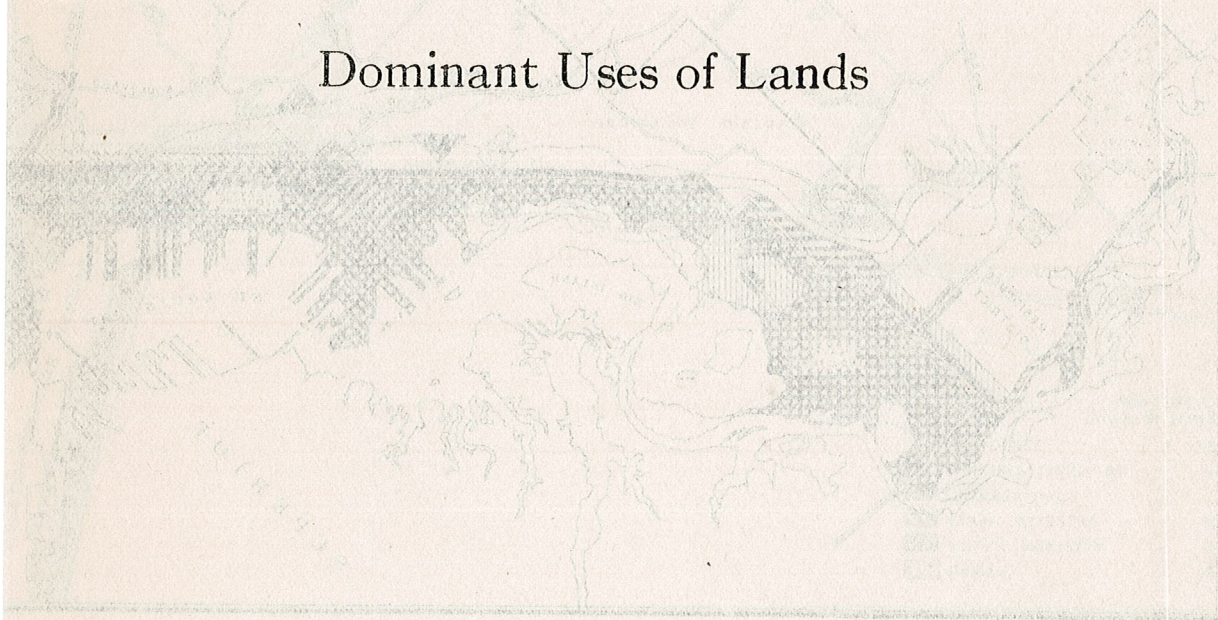
S U P E R I O R

L A K E

MAP OF
DULUTH AND VICINITY
CITY PLANNING DEPARTMENT
DULUTH MINNESOTA
SCALE 1:2500
JUNE 1925

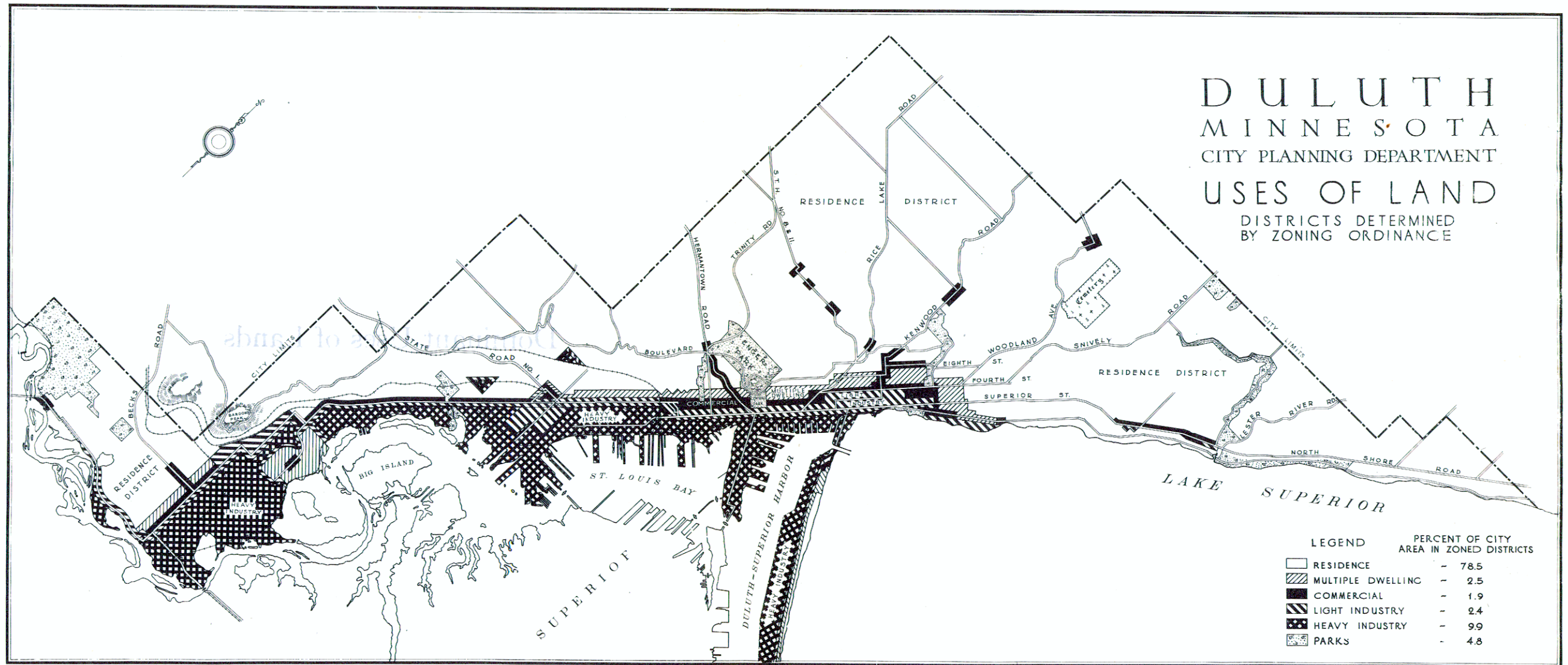
DULUTH
MAINE 1901
CITY OF DULUTH
USES OF LAND
DISTRICTS DETAIL
BY LORINO CALVERT

Dominant Uses of Lands



DULUTH MINNESOTA

CITY PLANNING DEPARTMENT
USES OF LAND
DISTRICTS DETERMINED
BY ZONING ORDINANCE



Dominant Uses of Land

Plate Two.

The effect which both shipping interests and terrain have had upon the development of the city is shown in the plate opposite. Principal industrial activities are practically all concentrated along the water front. Here are found ore and coal docks, iron and steel works, grain elevators, mills, fabricating plants and other manufacturing interests.

The lighter industry of the city appears chiefly along parallel streets a little distance back from the harbor. Restricted commercial districts extend along certain main thoroughfares and are situated at important street intersections. The main area of the city is suited especially to residential uses.

The thought has been expressed that in the ultimate development of the city new industrial territory will be required in the upland sections. This is a possibility, of course, and the prospect is worthy of consideration in connection with other theoretical schemes for future city development. At present it seems hardly worth while to devise a city plan predicated upon the eventual opening of industrial districts in the upland region, some distance back from the water front. Transportation and industrial surveys eventually will definitely establish what need there is for such districts. It seems more reasonable for the present, therefore, to accept the general organization of property uses as determined by the zoning ordinance and to prepare street plans upon this basis.

Vacant Property

Plate Three.

It has been estimated that 80 per cent of the corporate area of Duluth is not occupied for city purposes. The distribution of unused land is shown in the map opposite. It will be noted that there is considerable harbor frontage awaiting improvement. Government engineers estimate the total length of the Duluth dock line at 19.2 miles and report that 3.4 miles are now in use. Much of the hillside area of the city is unused, although certain steep rocky slopes near its central section are covered with homes. The population congestion here is as serious in spots as that found in metropolitan centers of the east. The difficulty of laying streets upon the bluffs has prevented them from being brought into general use. Where slopes are moderate and streets can be opened, dwellings appear, but as this and subsequent maps will show, much property has been laid out which will not be used. Beyond the bluff section the attractiveness of the land is dependent chiefly upon arterial highways. No systematic scheme of such essential traffic ways has been devised and until one is available and is followed in street development, Duluth expansion will be haphazard and wasteful.

The vacant property in the city, therefore, is at once a challenge and a promise. The community will suffer socially and economically if it fails to make proper use of favorable terrain. Congestion will be forced upon the areas immediately adjacent the water front, land which logically should be industrial will be appropriated for residence purposes, people will attempt to live in districts which cannot economically be provided with utilities.

The availability of so much usable but now vacant land in the city is an advantage which should be appreciated. Duluth has the opportunity now to prepare systematic plans for the utilization of these areas. A well laid out system of major streets is needed to give access to the rolling tableland. An application of modern town planning principles to these areas will give Duluth a new and much better city behind the bluffs. The least the city can do is to prevent the despoilation of hundreds of acres of its vacant property. The first essential in establishing this control is the determination of a plan of major streets.



Vacant Property

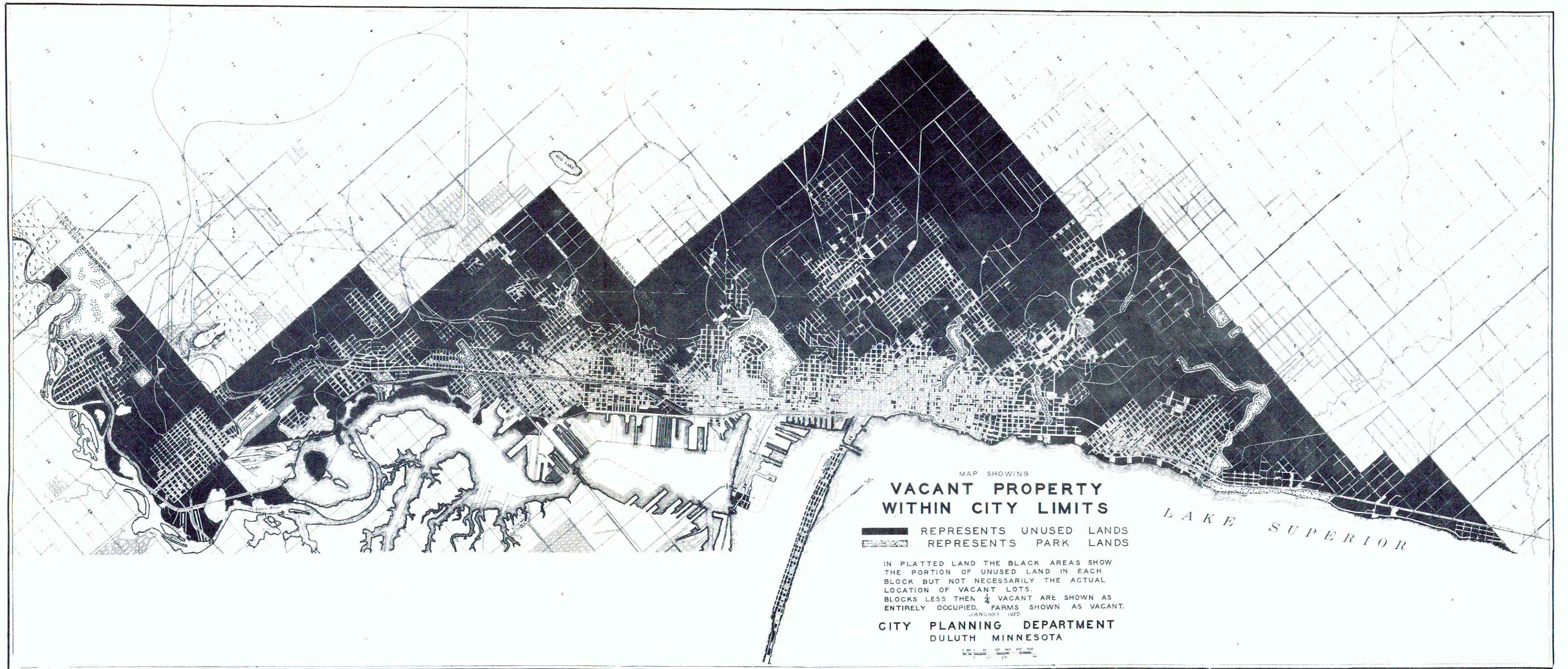
CITY PLANNING DEPARTMENT
DULUTH MINNESOTA

REPRESENTS UNUSED LANDS
REPRESENTS PARK LANDS

WITHIN CITY LIMITS

VACANT PROPERTY

IN PLATTED LAND THE BLACK AREAS SHOW
THE LOCATION OF UNUSED LAND IN EACH
BLOCK BUT NOT NECESSARILY THE ACTUAL
LOCATION OF VACANT LOTS
BLOCKS LESS THAN 1/2 VACANT ARE SHOWN AS
ENTIRELY OCCUPIED FARMS SHOWN AS VACANT



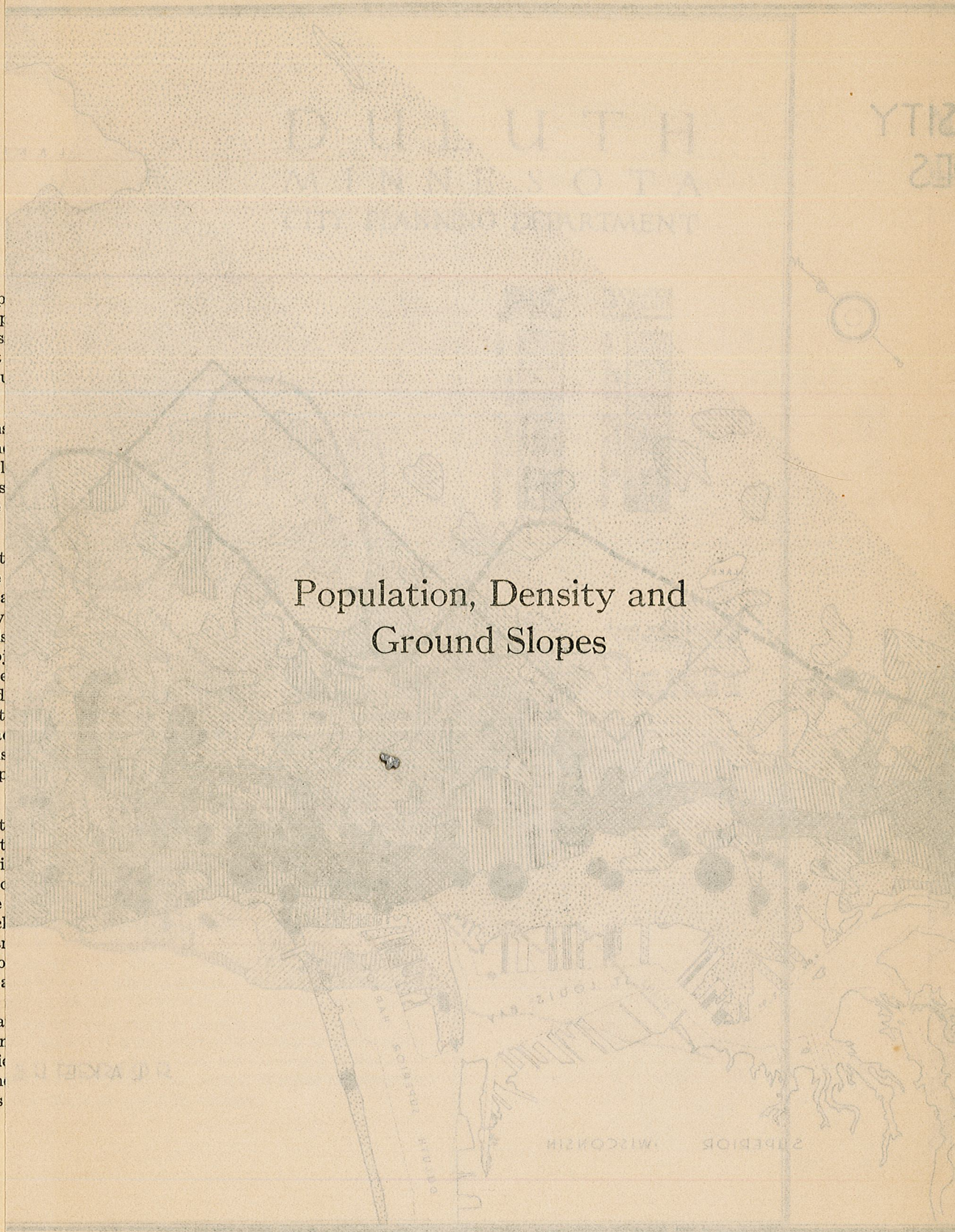
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Population, Density and Ground Slopes



Population, Density and Ground Slopes

Plate Four

This plate was prepared to show the influence of ground slopes upon density of population. Available topographic maps of Duluth were analyzed and the natural slopes classified according to steepness. Precise calculations are not possible in such a study as this, but the map is a fairly accurate representation of conditions.

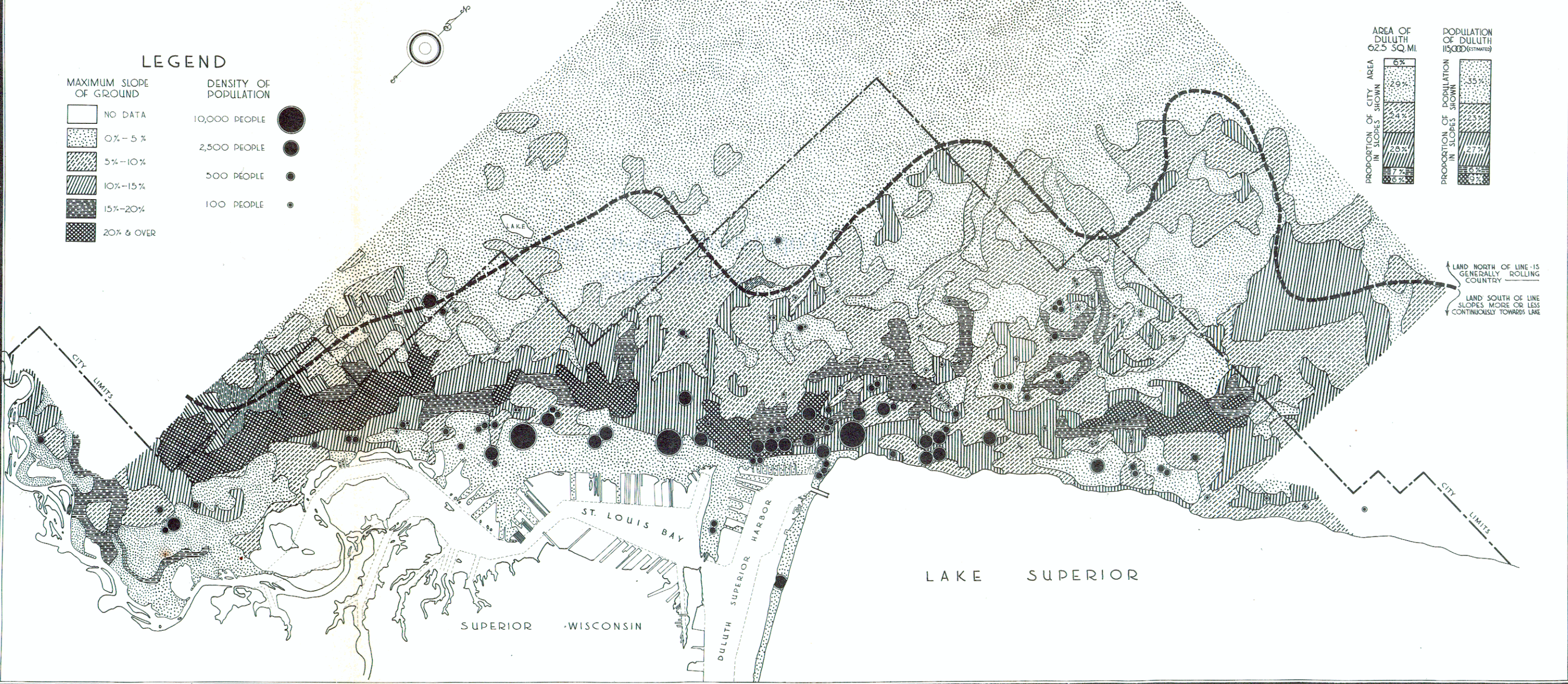
Estimates tend to show that slopes under 20% may be considered usable for residential purposes under certain conditions. Steeper slopes are in use, chiefly in central Duluth, but the settlement of these areas has been forced to some extent by their proximity to the water front and the business section.

In the future, population density can be regulated to a certain degree by street development. The tendency in the past, as the plate shows, has been toward a concentration in area of moderate slope. Such lands, if accessible, are obviously more attractive for residential purposes than steep hillsides. The policy of the city should be to favor the projection of major streets into these favorable districts at every opportunity. Directly above the Point of Rocks and within two miles of the central portion of the city, for instance, is a large area of 5 to 10 per cent slopes that remains practically undeveloped. Carefully planned street extensions into this territory will do more than anything else to promote a more concentric spread of population.

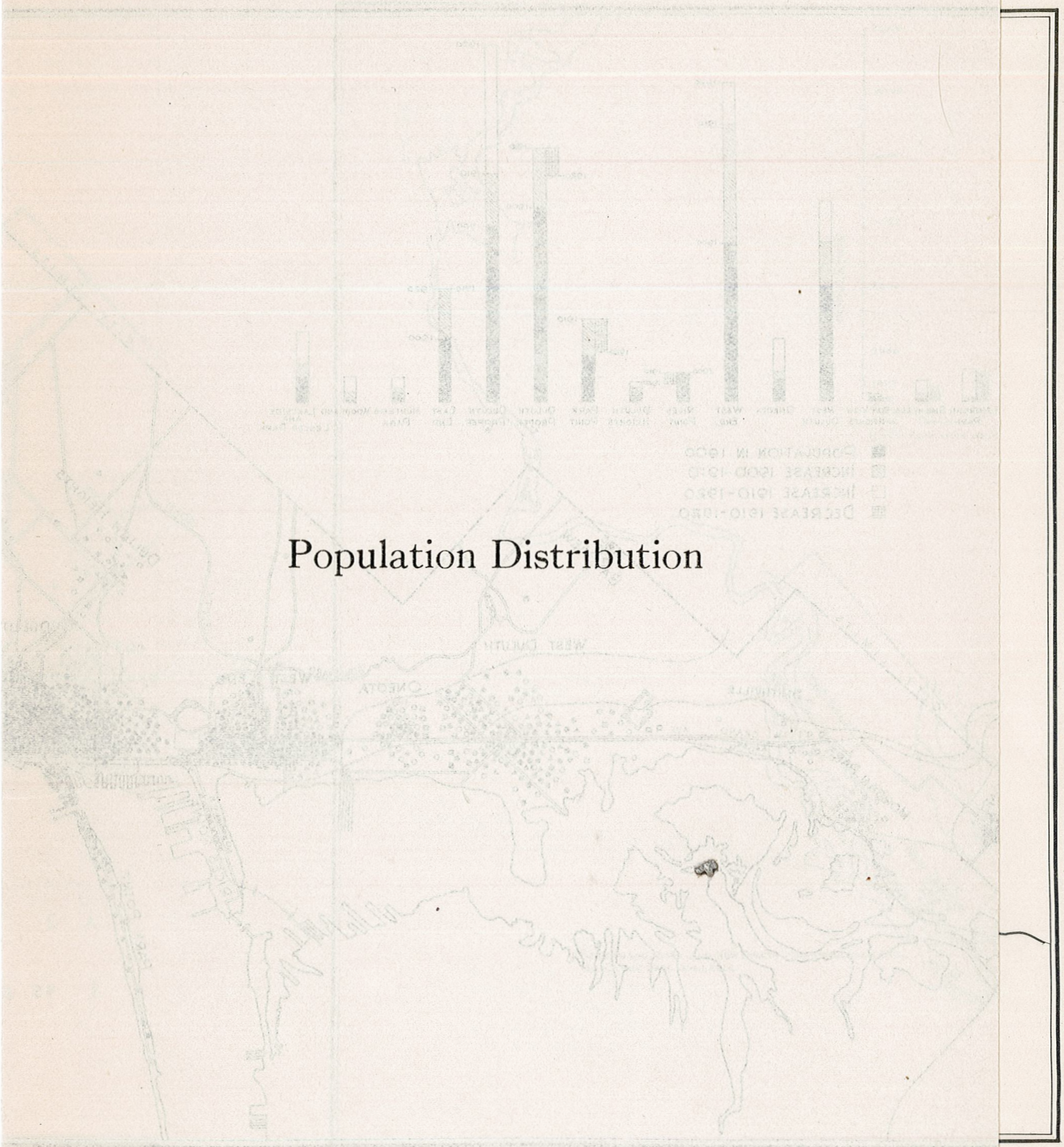
The ultimate economy of encouraging a more uniform distribution of population can be demonstrated. It is often stated that the tremendous size of Duluth is a handicap. It is not merely area that is costly. Haphazard and inefficient use of space throws a heavy carrying charge upon the city. The construction of a skeleton of service facilities, such as sewers, pavements, water mains and the like becomes extremely burdensome if the community has no way of knowing when and where settlement may take place over an area 62 square miles in extent. Obviously it is economical and sensible for the municipality to utilize every device available for the control of growth. Direct means in the form of control of large outlying land areas as in European cities are rarely available here, but the zoning ordinance is a help in this direction and control of street development has possibilities not yet fully realized.

POPULATION DENSITY & GROUND SLOPES

DULUTH
MINNESOTA
CITY PLANNING DEPARTMENT



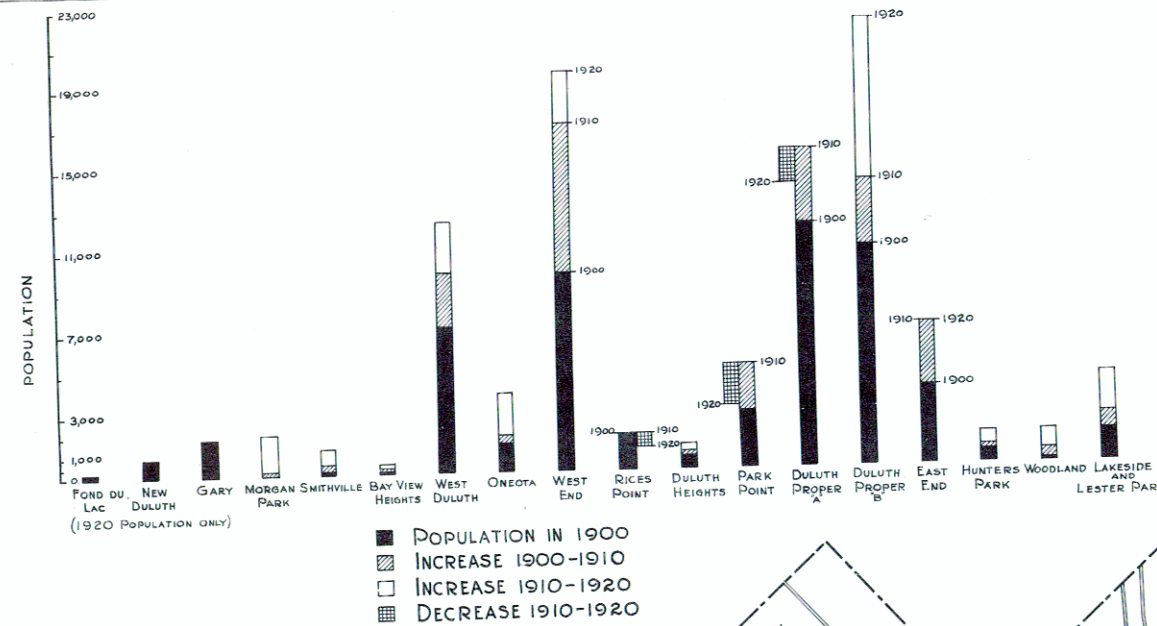
Population Distribution



DULUTH MINNESOTA

CITY PLANNING DEPARTMENT

DISTRIBUTION OF POPULATION & INCREASE SINCE 1900



FOND DU LAC, GARY AND NEW DULUTH 1920 POPULATION ONLY.
NO OTHER DATA AVAILABLE.

LEGEND
● POPULATION IN 1900
▲ INCREASE IN POPULATION 1900-1910
○ INCREASE IN POPULATION 1910-1920
■ DECREASE IN POPULATION 1910-1920
□ INCREASE IN POPULATION 1920-1925
EACH SYMBOL REPRESENTS 100 PEOPLE

Population Distribution

Plate Five.

Certain essential facts concerning the existing distribution of population must be known before intelligent planning can be done.

Study of Plate 5 reveals the following conditions: Duluth's population is now concentrated in a few localities, separated from each other by considerable distances. The population in 1900 was settled mainly between 3rd Ave. E. and 10th Ave. W., between Piedmont Ave. and 30th Ave. W. and approximately between 53rd Ave. W. and 65th Ave. W., with smaller settlements in about ten other districts. The increase from 1900 to 1920 settled largely in these three main areas, congesting them in spots. New areas heavily developed in this period were Morgan Park and the land between the main business district and 24th Ave. E. The increase since 1920 shows a decided tendency to settle outlying and upland areas and a further tendency to forsake congested blocks particularly as business or industry encroaches upon them, in favor of these outlying areas. These facts lead to questions—Why has the settlement of Duluth been so spotty? What changes in the physical structure of the city can be made to secure a more even and balanced population distribution? It is well known that the operating costs of the municipality are adversely affected by haphazard growth.

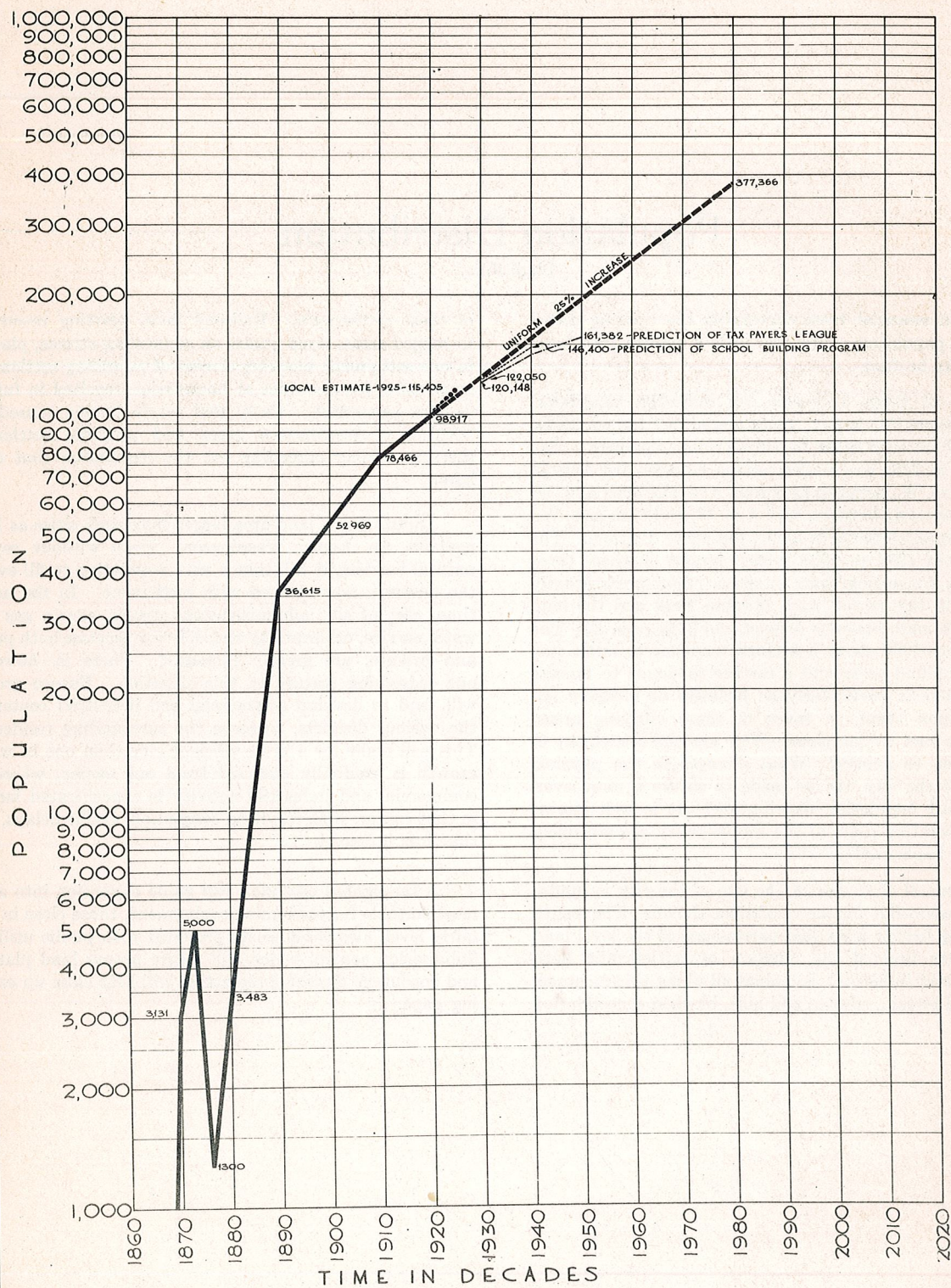
The general character of the site of the city is fundamentally responsible for the conditions shown. The length of promising harbor front and narrowness of the level land above it has favored the creation of settlements, both residential and industrial, in points all along this frontage. The natural terrain, ravines and hills, blocked consolidation

of these settlements. Railroad lines, platting unsuitable to rugged areas, steep grades on connecting streets, platting in one settlement blocking streets of adjoining settlements or creating poor contact at boundaries, resulted in further distinct separation. Early real estate booms caused the platting of tremendous areas and sporadic settlement thereon, further spreading out the population that came here.

Duluth has a land area larger than such cities as Minneapolis, St. Louis, Washington. Even without serious natural barriers, it will take a vast population to fill evenly the territory now spotted with settlement. In the meantime, cost of city administration, streets, sewer, gas and water service, other utility and delivery services both public and private, are greatly increased. There is, however, one redeeming feature in this situation. Future growth will tend to develop commercial and industrial centers in the various districts, to serve the surrounding residences. This will make for a more efficient city than one in which growth is gradually outward from one center, where all commercial and industrial activity is concentrated largely in that center, with resulting congestion, traffic delays, and time loss in travel.

A far-sighted city plan will guide expansion into areas most suitable for economic development, those close in and fairly level, also those easily provided with public utilities. Subdivision control which will insure proper land platting and encourage desirable replatting will help close up existing gaps.

CITY PLANNING COMMISSION

CITY PLANNING
DEPARTMENTPOPULATION GROWTH
DULUTH MINNESOTANINETEEN
TWENTY-SIX

Population Growth

Plate Six.

A study of population growth is extremely useful in promoting scientific city development. Yet few agencies of the city engaged in building its physical structure make use of such records. In Duluth, the Board of Education has a school building program based upon a population prediction made by Professors Neal and Severson of the University of Minnesota. The telephone company has made its customary forecast of growth. The Taxpayers League has also made population studies to determine probable municipal revenue. All available data on this subject has been incorporated in the plate opposite.

Predictions of future population change in a city like Duluth are of questionable value if extended too far. This city now stands in position of balance with reference to other commercial and industrial centers. This balance easily may be upset. Slight changes in factors of influence elsewhere may have a tremendous effect upon Duluth. Long and involved forecasts of growth may be found worthless after a few years. A fifteen or twenty year estimate is about the longest that can be justified.

The Taxpayers League has set forth figures as follows:

YEAR	ESTIMATED POPULATION	RATE OF GROWTH
1925	109,841	
1930	120,148	20%
1935	130,458	
1940	140,765	17.2%
1945	151,075	
1950	161,382	14.0%

These estimates have been compiled from average annual increases and have been checked against available supplementary data to prove their value.

The school authorities are using a forecast a little more liberal. The school survey referred to above contains the following estimate:

YEAR	ESTIMATED POPULATION	RATE OF GROWTH
1930	122,050	22%
1940	146,400	19.9%

This forecast has been based somewhat upon the studies of the Northwestern Bell Telephone Company.

It will be noted that these prognostications contemplate a growth decreasing in rate. Such a conservative expecta-

tion is scarcely warranted in Duluth. It is believed that a normal 25% increase per decade, will be more reliable as a basis for future planning than any lesser rate. A study of census records shows that cities having populations approximating 100,000 have a decided predilection toward continued growth at approximately 25% per decade. Cities having populations between 90,000 and 110,000 in 1900 showed an average growth of 25.7 per cent to 1910 and 23.4 per cent between 1910 and 1920. From application of the law of averages one may predict reasonably a rate of growth for Duluth in the neighborhood of 25 per cent each of the next two decades.

However, the value of any population estimate will be lost, if it appears as nothing more than a pseudo-scientific and perhaps interesting guess. What does a 25 per cent increase in population every ten years mean to Duluth? What fair deductions can be made from this glance into the future that will be of value in building a better city? In the first place, it should be said that an average 25 per cent population change every decade is not a "boom" and does not represent pressure in any form. Such constant growth is much more desirable than a succession of unpredictable spurts and slack periods. There is no reason why the city should not be able to maintain the physical structure of the city, adequate at all times to care for this steadily mounting population, if it manages its public improvements with wise foresight.

At the present rate of growth it is possible to estimate with a considerable degree of accuracy just what the school, playground, street, water supply, sewer, transit and similar civic needs are likely to be for a moderate period ahead. In like manner, estimates can be made of the rate at which the present vacant area of the city will be put to use. Computations show that 83% of the present 62.5 square miles of the city or 51.86 square miles, are still largely undeveloped. Of this amount from 13 to 20 per cent, or roughly from 7 to 10 square miles, is in steep slopes difficult to bring into appropriate city uses. The 40 square miles of corporate area remaining is partly laid out, but the greater portion of it will be platted at the rate of approximately 250 acres per year. This is the equivalent of laying out about eight miles of streets, and building utilities to serve from 500 to 750 new families per year. A problem before the city is to determine upon a plan to guide this new urban growth into districts which nature has marked for such use. There is no question of the desirability and economy of such procedure.

