THE DENVER PLAN

VOLUME 1

THE DENVER PLAN

Three Primary Elements

1. MAJOR STREET
2. PARKS AND BOULEVARDS
3. RECREATIONAL FACILITIES

A Report by The Denver Planning Commission

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DOWNTOWN DENVER FROM THE SKY, SHOWING PROPOSED BY-PASS ROUTE.
REFER TO THE MAJOR STREET PLAN

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Pencil Sketches by Stanley E. Morse

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THE DENVER PLANNING COMMISSION

CITY AND COUNTY OF DENVER

Office: 611 18th Street

Denver, Colo., December 27, 1929.

HONORABLE BENJAMIN F. STAPLETON, Mayor.
HONORABLE C. D. VAIL, Commissioner of Parks and Improvements.
HONORABLE GEORGE P. STEELE, President of City Council.

HONORED SIRS:

We have the honor to transmit herewith the first official report of The Denver Planning Commission for your consideration and approval.

This Commission was created by Resolution No. 5, Series of 1926, signed February 24, 1926, "to make a study of City Planning and to recommend a plan or plans in respect thereto to the Mayor for adoption."

The plans embodied in this report embrace the three fundamental elements of a complete city plan, namely: a Major Street Plan, a Plan for Parks and Boulevards, and a Plan for Recreational Facilities. They represent the completed work of the Commission to date. The Commission is making studies on additional and supplemental plans at this time and in the future will make other recommendations.

Meanwhile, the Commission urges as strongly as possible that the accompanying plans be adopted as the basis for the general development of our city and that they be carried out year by year as improvements may be required. If this is done the Commission is of the opinion that the city will reap the extensive benefits which have been proven to result from wise and careful planning, as shown by the study and efforts of other progressive cities.

Respectfully,

(Signed) JOHN S. FLOWER,
President.

I. Introductory

Three primary elements of the Denver City Plan are here set forth. These cover the basic needs of an adequate and efficient major street layout; a comprehensive system of city parks with connecting boulevards, and complete provisions for recreational facilities.

These fundamental divisions of the city plan must be closely interlocked to achieve the greatest efficiency, and, in producing these studies, The Denver Planning Commission has worked with this foremost in mind. While each portion of the plan is in itself an entity, all have been devised with the requirements of the other elements completely in mind.

These plans are the culmination of nearly four years of careful and thorough study on the part of the Commission and its staff. The plans have also been subjected to outside scrutiny and criticism before being finally adopted.

It is the belief of The Denver Planning Commission that these plans, representing as they do the best combined judgment of many men, form a sound basis for the future development of Denver. It is further of the opinion that by carefully following these plans, Denver will reap tremendous benefits in the increased utility and efficiency of the physical city, as well as achieving large savings of money. which without comprehensive plans is frequently spent on ill-advised or impractical projects. Above these considerations is the incalculable benefit to be derived from making Denver a far more beautiful and inspiring place to live than it can ever be if it is permitted to grow haphazardly without forethought and orderly plans.

In evolving the Denver Plan, the Commission has endeavored to look to the future and to forecast insofar as possible the trends of the city's development. Certainly we can not make plans for the future of Denver unless we know rather definitely just what the city is likely to be twenty or thirty years hence. In doing this and in making its plans, the Commission has followed the methods of large private corporations in making provision for future development and expansion.

Therefore it must be borne in mind above everything else that these plans are for the future as well as the present. Endeavor has been made to correct past mistakes and avoid similar errors in the years to come. The Commission has worked with the Denver of 1950 in mind. It wishes to see its plans carried out as portions of the year-to-year development of the city.

There is no thought that the city should immediately plunge into a tremendous and costly program of improvements. The Commission urges instead that these plans be adopted as a guide to municipal development and be transmuted from plans to realities when they become practical. Before it has finished its work, the Commission will bring forward a definite and carefully prepared financial plan, which will assure the carrying out of this program without undue burden.

The Commission makes no claim to prophetic vision nor to infallibility. As time goes on events may make it necessary to alter and amend these plans. A growing city of necessity should have a continual adjustment of its basic plans.

While this volume represents the completed work of the Commission to date, it by no means comprises all of the activities. The Commission, for instance, is carrying forward studies on mass transportation, traffic, and other phases of a well-rounded city plan, and will, in the future, advance additional reports bearing on other plans.

A city plan is not a forbiddingly technical thing. Stripped to its elements, city planning simply seeks to put on paper proposals designed to increase the utility, beauty and comfort of the place in which we live. The city planner sees the destiny of the city as a great meeting place of commerce and of art. He sees the physical layout of the community as a combination of utility and beauty. He sees the streets, not as mere spaces between blocks of buildings, but as channels through which the teeming life of the city must flow, with the greatest ease possible. He sees the ideal city as a place where the citizens can carry on their business with the least inconvenience and greatest economy while they may enjoy to the fullest extent the benefits of recreation and the inspiration of civic beauty. He sees the city plan as the most practical and surest means of making the actual city approximate this ideal.

This then is the Denver Plan.

II. A Study of Population Expectancy

The development of any sound plan for the future of Denver, of necessity demands an accurate evaluation of the possibilities and trends of growth.

The Denver Planning Commission has sought, by a careful study of past population growth and an analysis of present factors, to forecast what the future of the city may be.

These studies have induced the conclusion that this city will reach the mark of 520,000 population in 1950 and may possibly go to three-quarters of a million by 1975.

It is believed this estimate is conservative and if a variation is to be expected it is more likely to be upward than downward The estimate checks closely with similar careful calculations made in 1922 for the Board of Water Commissioners by the Engineering Board of Review, and with other estimates prepared by one of the city's largest utility corporations. The similarity of these forecasts is shown in the accompanying chart.

The fundamental basis for all of these estimates is to be found in an analysis of the development of Denver from a huddled group of log cabins near the mouth of Cherry Creek in 1858 to the capitol of America's Inland Empire, with 320,000 population seventy years later.

The record of growth for those seventy years is plain. The population has mounted steadily, with no notable fluctuation nor abnormalities, such as have been frequently evident in the development of other frontier communities.

The average rate of growth throughout the life of the city has been 2.02 per cent annually. Reference to the population chart will show that the actual yearly growth has at no time varied greatly from this mean. This chart also clearly shows that at no time—even in the panic years of the nineties—has there been any retrogression in the population curve. It has always mounted steadily, at times a little more slowly than at others, but the trend has always been definitely upward.

Likewise, the rate of growth of the city has consistently been slightly higher than that of the nation. During the last census decade, preceding 1920, for instance, the national rate of growth was 1.49 annually. Denver has also exceeded the state in rate of growth, Colorado's increase being 1.76 per cent annually.

With this plain and substantial record in mind, it is apparently safe to assume that Denver's growth will continue along these same lines. This is, of course, disregarding any tremendous boom which might result from real estate, mineral or oil development, or the contingency of some natural cataclysm or a war. These elements are entirely unpredictable and in consequence cannot be considered.

One factor which is apparently worthy of note is the development of air transportation. It would seem Denver will be comparatively better served by this mode of transportation than it has been by railroad, so that any effect this may have is likely to be stimulating rather than retarding.

If we accept these conclusions it is obvious that our city plans must be made with a view toward a city of a half million people in twenty years.

Assuming that this accretion of population is to be Denver's portion, the next problem that presents itself is that of distribution.

No one will contend that this population increment will be evenly spread over the face of the city. Strong development trends favoring certain sections of the city are always in evidence. On the basis of these trends an endeavor has been made to foresee the varying amounts of growth of the different sections of the city.

The Commission's calculations in this respect indicate a population of 41,800 in the Park Hill district by 1950. This forecast, however, is subject to the influence of the newly created municipal airport, which may decidedly change the character of the eastern edge of the district.

The Capitol Hill district, bounded by Broadway, East Nineteenth Avenue, Franklin Street and Cherry Creek, gives evidence of doubling its size in the next twenty years with an estimated total of 76,000 people. A population of 20,600 in the Barnum district, south of West Thirteenth Avenue and west of Federal Boulevard, is forecast. The Berkeley section, north of West Thirty-second Avenue and west of Federal Boule-

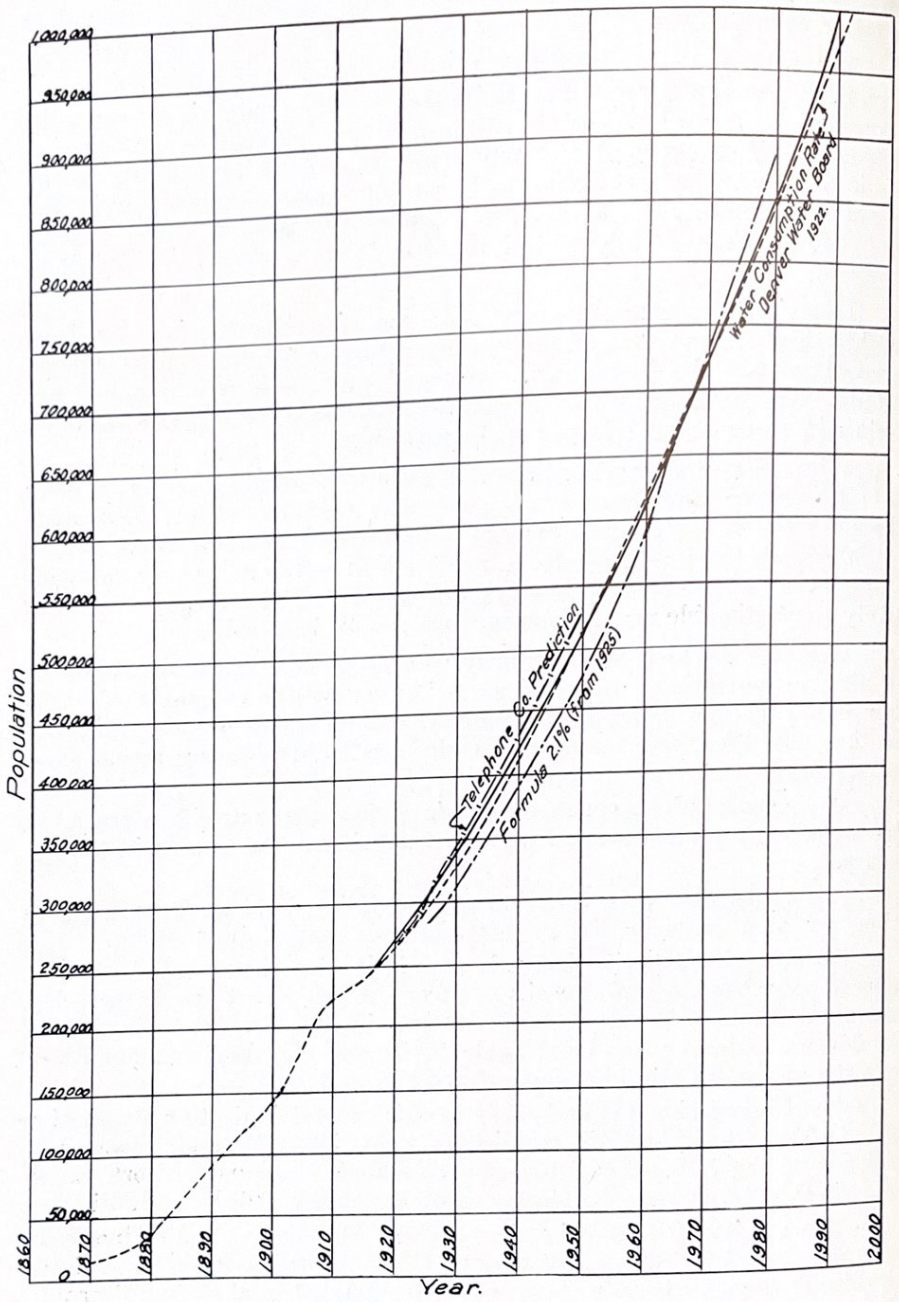


CHART OF POPULATION GROWTH

vard, should have a population of 31,400. East Washington Park district, within the limits of Cherry Creek, Buchtel Boulevard, Downing Street and Colorado Boulevard, is estimated for 1950 at 25,400. University Park, from Buchtel Boulevard south, and Williams Street east to the city limits, similarly should have 11,000 people.

These estimates immediately indicate some very definite municipal problems. It is self-evident that with the development of the various sections, with the consequent construction of buildings and the increased density of population, that heavier demands will be placed on the street system, and that the park and playground requirements will be heightened.

It is the purpose of these plans to meet these problems while they are still capable of solution; while major street lines may be created without undue cost and it is still possible to acquire open areas for park and play spaces.

With the existing zoning map it is possible to calculate at a fairly accurate rate the maximum population of certain districts. The maximum population of the South Denver District on these maps has been estimated at 220,473 persons and the maximum population of the Montclair District at 187,473 persons. These maximum points may not be reached for a great many years, but with the continuous growth of the city this ultimate growth must be borne in mind.

The average population per acre for Denver at the present time is very low. Denver has an average density of 6.73 persons per acre, with only a few cities with lower density, as shown in Table V, Appendix.

The figures on population density are derived by dividing the total population of a city by its total acreage. In a great many cases the area within the city limits comprises a large territory of undeveloped ground and may not give a very accurate index as to the actual density in the occupied districts.

Figures on the density of population in the various districts in Denver in 1920 are shown in Table VI, Appendix. It is interesting to compare these figures with the densities forecast for some of these districts in 1950, which are listed in Table II, Appendix.

Denver is essentially a city of one-family homes. This Commission is not in sympathy with any attempt to change this characteristic of the city. It would be possible to concentrate the population in a much smaller area if the present zoning ordinance was amended to permit closer building. Certainly a city can be built more cheaply with a greater density of population. If the 320,000 persons in Denver could be concentrated into five square miles, instead of being spread over approximately sixty square miles, it can readily be seen that all public utilities, such as sewer lines, water lines, streets, etc., could be constructed and maintained at a greatly reduced cost, even if it would create a greater congestion in traffic circulation.

The evils of such huddling and piling up are, however, apparent. New York is, of course, the most gross example of the stultifying effect

of such a procedure. The city is throttling itself to death with is sky-reaching magnitude.

Some one has said the cities of the east are ant hills where the teeming population piles up on itself, while the cities of the west follow the same plan as the prairie dog towns of the plains, scattering widely over the open spaces. The simile is apt. Let us continue our present policy and build a city of spacious beauty and high utility, avoiding forever the evils of tremendous congestion and vile overcrowding, which make impossible any decent or orderly living.

III. Historical Notes

The selection of the site of the city of Denver, which, with its 150-mile sweep of mountains to the west, is one of the finest in point of inspiration in the world, was largely a matter of accident.

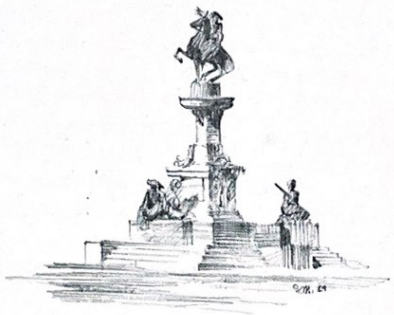
The town sprang up with a cluster of log cabins at the confluence of the Platte River and Cherry Creek, with the first influx of miners in 1858, after scattered placer diggings had been discovered on Ralston Creek and along the Platte.

Among those first goldseekers were men who saw the possibilities of development of town sites as more certain and lucrative than the doubtful search for gold in the gravel along the creek beds.

The first town to be started was Montana, composed of a few log cabins on the bluffs above the Platte about five and one-half miles south of the mouth of Cherry Creek. This was shortly abandoned for the more accessible and convenient site in the cottonwood groves where the two streams flow together. While the first cabins, which actually formed the nucleus of Denver, were built there, no real estate operations were begun immediately.

In the autumn of 1858, enterprising pioneers laid out a townsite along the east bank of Cherry Creek, which they christened St. Charles. In November of that year this site was converted by another set of men into the site of Denver City, named after General William Denver, then the governor of Kansas Territory, which included this region.

General William Larimer, Jr., for whom Larimer Street is named, was the moving spirit in the Denver City townsite operations. In "The Larimer Reminiscences," William H. H. Larimer, then a boy of eighteen, who accompanied his father to the gold regions, sets down a clear picture of the haphazard and accidental methods employed in designing the embryo city.

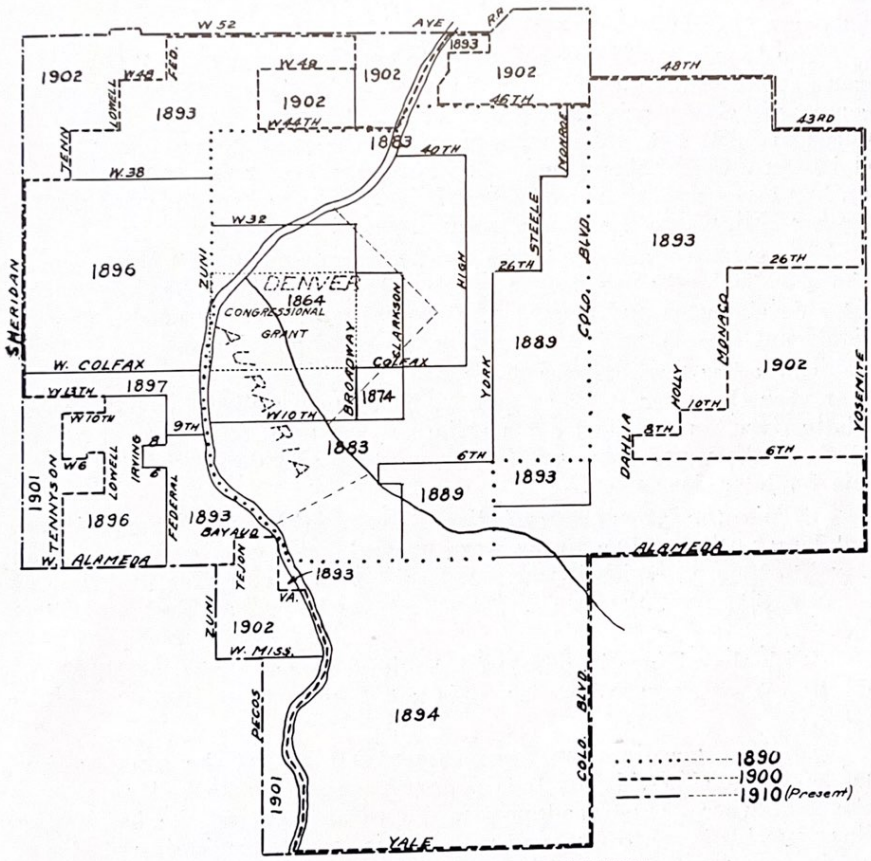


The starting point employed was what is now Fifteenth and Larimer Streets. The wagon road from the Arkansas river took its course along Cherry Creek and then swerved and dropped over the bluffs near the site

of the present statehouse and thence continued down to the Platte. It was this road which actually became Denver's first major street and has since grown into Fifteenth Street. The Larimer cabin had been built slightly south of this road and facing west, on what became Larimer Street.

With the wagon road as a base, the younger Larimer tells how Colonel Samuel Curtis, who had some claim to being a civil engineer, with James S. Lowry and himself, laid out the first street system and staked off the lots. Using a piece of rope as a chain, they laid off Larimer Street at right angles to the wagon road and then proceeded to measure off blocks and additional parallel streets. Thus the diagonal downtown street system was imposed on this city simply because it was platted when there were no surveys of the country and the wagon road from the southeast furnished a convenient base.

During this time the people on the west bank of Cherry Creek were not idle. A number of cabins had been built there and the place was called Auraria. Some weeks before the promoters of Denver City had arrived in the country a townsite company had been organized there and the boundary lines of their townsite claim had been established.



EXTENSIONS OF THE CITY LIMITS

With the activities on the east side of the creek, they began to lay out a street system in Auraria, where hitherto the cabins had been built haphazardly.

There was great rivalry between the two town companies and the inhabitants, and J. E. Wharton in his "History of Denver," published in 1866, says that this rivalry was so extreme that the people of Auraria refused to have their street layout correspond with that of Denver City. Whether it was community jealousy or lack of foresight, the result is the same and we are paying the penalty to this day with the crooked tangle of streets that has resulted at the banks of Cherry Creek, which was the dividing line between the two early towns.

The men who laid out these towns were not without an ambitious vision. Wharton has this to say of the Auraria townsite:

"The record of the boundaries of this townsite will give the reader an idea of the extensive view entertained concerning the future greatness these gentlemen expected for their city: 'Beginning at a point in the middle of the main channel of the Platte River, opposite the mouth of Cherry Creek; thence north sixty degrees west to the main channel of the Platte River; thence down the same to the place of beginning.' This survey embraced an area of about 1,200 acres."

The founders of Denver City were equally optimistic. "The Larimer Reminiscences" are again authority for the statement that the town company's claims originally were for 2,200 acres. This was later reduced to 1,280, but individual members of the company took up private claims on the land abandoned. The Larimers, father and son, each took up 320 acres east of the town which included Capitol Hill and Grasshopper Hill, where the Presbyterian Hospital now stands.

The extensive acreage of the two town companies must have seemed almost ridiculously pretentious at the time. although in the light of the later development and growth of Denver the original townsites are insignificant enough, as will be seen on the accompanying map.

One other townsite was also staked out in 1858. In December of that year the elder Larimer and D. C. Collier, waded the half-frozen Platte river, and marked out a claim for the town of Highland on the bluffs to the west. This project was shortly abandoned, however, and left for later developers.

Despite the bitter rivalry between Denver City and Auraria, it was not long until the two towns were merged. An election was held on April 3, 1860, at which it was voted to join the two under the name of Denver City, and the two divisions became known as East and West Denver.

With the picture in mind of how the diagonal street layout of the downtown section was imposed, it is not difficult to see what happened later.

In the succeeding years government surveys of the country were made. Following this, in 1864, Thomas Skerritt, who had a farm on the land where Englewood now is, plowed a road on the half-section line from his home to Cherry Creek. This was the beginning of Broadway.

When the diagonal streets were extended to the foot of Capitol Hill, and it became profitable to subdivide the land beyond, it became apparent that it was impractical to extend the downtown street layout on the angle over the hill. In consequence, the streets of the residential section were laid out in conformity with the surveyed section lines and the original Broadway line of Skerritt was continued northward, meeting the downtown diagonals. Again accidental factors largely dictated the civic design.

The actual comprehension of these early men as to the real problems of planning a city seems to have been scanty.

For instance, we find that as early as 1889 the deficiencies of the original city were apparent to another historian, Frank Hall, who, in his "History of Colorado," says:

"Now that we need them, now that the city has grown far beyond the anticipation and predictions of its founders, we are lost in amazement at the greediness or want of foresight which induced the platting of two great towns without the slightest provision for resorts (parks) which every community should have and which, when supplied, are unmixed blessings."

Again Hall says:

"Thus we find, after an experience of nearly thirty years, many deficiencies in our municipal system that should have been supplied in the formative stages."

The record of the geographical growth of Denver in after years has been largely one of the platting of outlying territory and the gradual extension of the city limits as population expansion indicated. These various extensions are shown on the accompanying map, with their dates.

It will be seen that no annexations have taken place since 1902, at which time the limits were squared out materially. What the future may be in this respect is difficult to forecast. Recent efforts to annex Englewood failed. However, it seems logical that the city limits will be squared out at the southeastern and southwestern corners and undoubtedly other suburban territory will be added as the population spread into surrounding territory warrants.

IV. Analysis of Traffic Census

The most comprehensive traffic count to date was made simultaneously at some 250 points about the city on August 10, 1929.

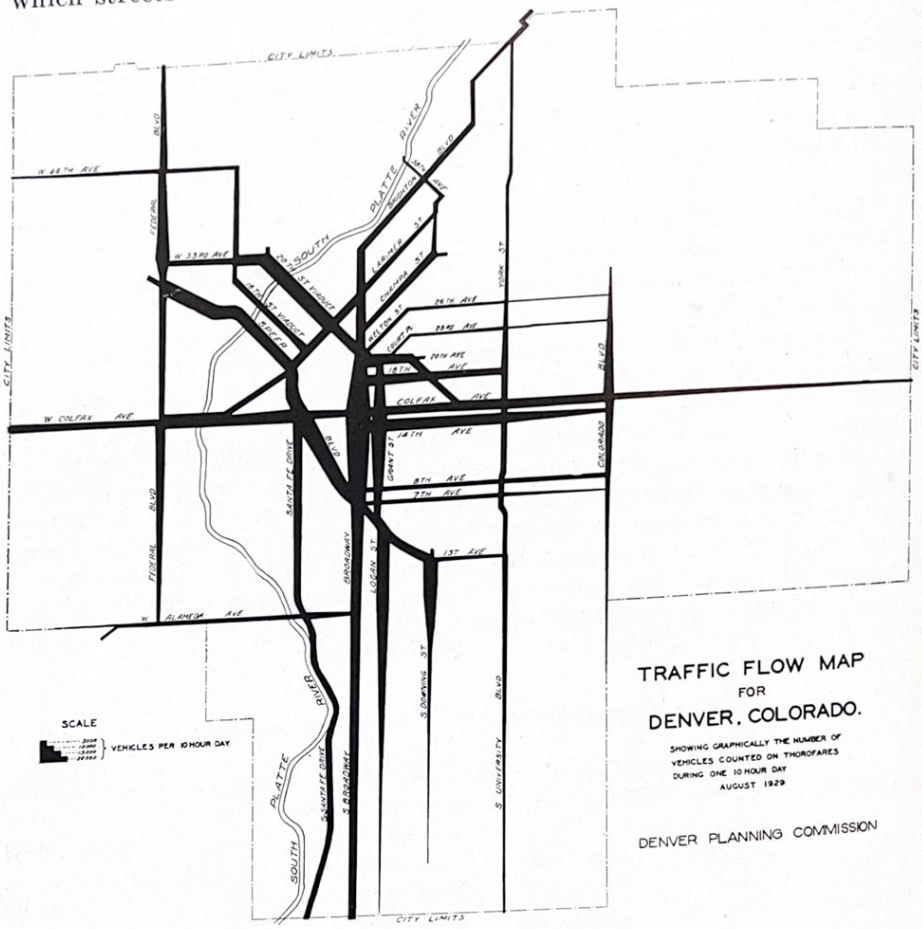
The count was made for each hour between 8 a. m. and 6 p. m., and was taken separately for passenger automobiles, trucks, street cars, horse-drawn vehicles and cycles. It gives a satisfactory view of average summer traffic. The count being made on a Saturday, the late afternoon hours do not indicate as many vehicles on radial streets from the center of town as would be found in midweek. A Sunday count would show comparatively little traffic in the downtown district, but a considerable increase on the routes leading from the city.

Previous counts were made in the downtown section and vicinity in 1923 and a more extended count in 1926. Detailed information regard-

ing existing traffic is essential in the design of future streets and should in the future be checked up at intervals of every two or three years. Generally speaking, the travel on arterial streets will increase up to their capacity in direct proportion to the increase in automobile registration.

The hourly variation in traffic is considerable. The maximum hour is 135 per cent of the average hourly count for the ten-hour day. In the center of the city the maximum hour is usually around midday; at points somewhat away from the business center, between 4 p. m. and 6 p. m.

Traffic figures have a vital meaning when coupled with a reasonably accurate estimate of street capacity. It is then possible to see at once which streets are filled to capacity or approaching this point.



In arriving at a fair estimate of capacity for different streets, data has been utilized from other cities where exhaustive surveys and studies of traffic have been made. This data checks very closely with our local information, as will be shown in the close correspondence between estimated capacity for certain of our streets and actual counts on the streets

at a time when they are known to be carrying all the vehicles which can move effectively over them.

All estimates are based on a certain number of lines or "lanes" of vehicles in motion. After allowing space for vehicles parked at the curbs. Our streets have roadways wide enough for only two or three moving lanes, with such exceptions as Broadway (4 lanes), Arapahoe street (4 lanes), a portion of Colfax Avenue (5 lanes). The streets with 48-foot roadways have been rated at three lanes, although at intersections four lanes may line up while waiting for a traffic signal. (In practice it is not possible to have four lanes in motion at ordinary driving speeds throughout the length of such streets. Any odd number of lanes is, of course, undesirable, as it means one lane moving along the center of the roadway—a frequent practice on the streets and dangerous to vehicles in the opposite direction.)

Streets at present designated as right-of-way streets, where traffic is controlled by signal only at intersections a considerable distance apart, are given a rated capacity of 750 vehicles per lane per hour. Streets without electric car tracks, where there is the usual interruption from cross traffic, are rated at 700 vehicles per lane per hour. Similar streets with car tracks are rated at 600 vehicles per lane per hour. These figures take account of the fact that it is not possible to use every moving lane to its fullest capacity, due to vehicles approaching or leaving the curb when parking, shifting position from one lane to another, etc.

It has been found that the maximum number of motor cars can be satisfactorily handled on the average city street at a speed of about fifteen miles per hour. At speeds of twenty miles and more per hour, the distance between vehicles in the line must be so greatly increased for safety in stopping that a smaller number of vehicles can pass a given point in a measured period of time. It should be noted that driving in a street filled to capacity is not particularly pleasant, and on an avenue or parkway where pleasure driving is an important consideration such congestion is undesirable. Furthermore, on right-of-way streets the object is to enable traffic to move rapidly, and at speeds greater than can be obtained when the street is carrying its maximum volume.

Table No. III, Appendix, shows a comparison of present traffic with estimated street capacities.

The estimated present capacity of Colfax Avenue at Broadway cannot be realized because of the interference of the large number of street cars turning into and off Broadway at this point, and similarly the actual capacity of Broadway at Colfax Avenue is less than rated because of the left-hand turns of the incoming Broadway street cars.

The present traffic on Speer Boulevard at Broadway is still considerably less than this street's capacity, which fact suggests that the proposed grade separation at this point is not yet an urgent matter.

Because of local conditions, Santa Fe Drive has been given an arbitrary rating in capacity.

Note should be made of the close correspondence between the actual maximum hourly count and the theoretical capacity in the case of Logan Street, Federal Boulevard and 16th Street. Federal Boulevard and

16th Street were undoubtedly carrying all the traffic which could be expected of them at the hour of the count. In the case of Logan Street, the absence of parked cars south of the Cherry Creek bridge makes more of the roadway available for moving cars; this fact, which is reflected in the actual count, is, of course, not a permanent condition.

The low count on California Street in comparison to its capacity is probably due to the prevalence of double line parking, an abuse characteristic of other downtown cross streets.

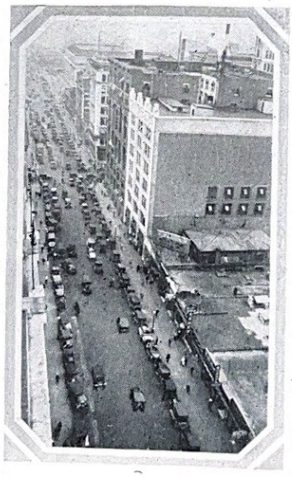
The rated capacity of the three viaducts would be reduced from 2,100 per hour to perhaps 1,700 if vehicles are to maintain their customary speed.

A capitulation of the fifteen heaviest traffic streets in Denver is given in Table IV, Appendix, which shows that these streets carried a total of 175,372 vehicles on the day of the count.

The total traffic movement in much larger cities than Denver is, of course, very much greater. However, the intensity of vehicular movement on the fifteen streets with the heaviest traffic is demonstrated in comparison with traffic counts in other cities. In Detroit in 1925 the fifteen streets of heaviest traffic leading from the center carried 177,694 vehicles in twelve hours; at a distance of three miles from the center fifteen streets carried 202,026 vehicles. In New York in 1923 fifteen avenues in the center of Manhattan carried 170,956 vehicles in twelve hours. At that time the traffic count on Fifth avenue was 21,872 for a twelve-hour period. Denver's maximum count is on Broadway, 17,841 for a ten-hour period.

V. Major Streets

Every city in America is facing a problem of serious magnitude in street congestion, which, at its worst, amounts to virtual strangulation of traffic. Denver is no exception, the only difference being in degree, since traffic arteries have not yet been critically clogged.



DOWNTOWN CONGESTION

Every city and every citizen suffers from this growing tyranny of congestion, which, like a progressive disease, retards their activities, and in its acute stages produces paralysis. It levies its tax on business man and worker; it increases the price of every commodity which is hauled through the streets; it impairs the efficiency of the entire community by the theft of valuable time; it mars our pleasures; and it impairs our health by placing an additional strain on the already over-taut nerves of city dwellers. The sum of these depredations by congestion, if it were possible of computation, would reach an almost unbelievable total. Fortunately, Denver is not so inten-

sively built up that relief measures are prohibitive in cost, and if we meet our problem squarely it is still possible to make proper provision for the future.

Congestion is, none the less, becoming increasingly burdensome. This is apparent to anyone who moves on the streets. Likewise, it is axiomatic that the time for remedies is before any ailment reaches chronic stages.

Fundamental causes for the mounting congestion are found in two sources. The first is steady growth of population coupled with increasing per capita ownership of automobiles. Second is a defective street layout. In its simplest terms, our difficulty is that we are trying to force too many automobiles through streets adequate to carry the ox-carts, covered wagons and hand barrows of an earlier day, but ill-designed for streams of hurrying motor cars.

Denver has now approximately 80,000 motor vehicles—one for each four persons. That is a greater number than there were in the entire state in 1917, when Colorado's registration was 71,355.

While the tremendous advances in automobile ownership which took place in the early part of this decade have passed, for the last four years the city has settled down to a fairly steady increase in motor vehicle registration amounting to 4.5 per cent annually. We are adding from three to four thousand cars to our total each year. This annual increase is more than the number for which there is parking space on the streets of the downtown district at any given time.

If the assumption be made that this rate of increase will continue, we would shortly find ourselves with one automobile for every three persons. Los Angeles is said now to have a greater proportion than this. By 1950, with a population of 520,000, our present ratio of automobiles would give us 130,000 machines; or the probable ratio of one car to three persons would mean 173,000 cars.

The situation in Denver is complicated by the heavy tourist influx in the summer. Some other cities may have a lessening of traffic in summer vacation periods. Denver's traffic peak is in August, when motorists from every state and from the rest of Colorado gather here.

It is impossible to estimate accurately the number of visiting cars. As an index it may be cited, however, that a traffic count on August 10, 1929, showed that cars from other states comprised 20 per cent of the traffic of the six main highways into the city. It is probable that as many as ten or fifteen thousand tourist cars are on Denver streets at the height of the summer season.

Admittedly this is a transitory situation which does not maintain throughout the year, but it must be remembered that we cannot merely prepare for average traffic. We must meet the peak loads on the streets, just as a public utility company must be prepared at all times for the maximum demand for electricity and gas.

Only a few street improvements of first magnitude have been carried out in the history of the city. These would include the opening of 23rd, 24th and 26th Streets, between Curtis and Larimer Streets; open-

ing of Speer Boulevard; the extension of Broadway; opening and widening of Wewatta Street to form Brighton Road opening; Santa Fe Drive south of Alameda Avenue; widening 46th Avenue; construction of the several viaducts over the Platte River valley; and a number of parkways and boulevards in the east and south sections of the city. Examination of the city engineer's records shows in addition a great many minor connections in the original street platting, which have been carried out from year to year.

Scores of independent subdividers, working individually without co-ordination or comprehensive plans, created most of our street defects. One of the most distressing defects resultant from this situation is to be found in the jogs at street intersections in all parts of the city. Those on the streets intersecting Colfax east of Clarkson are perhaps the most familiar, although there are examples at every hand. The subdividers frequently made no effort to see that their streets conformed with adjoining ones. Every jog constitutes a serious traffic impediment and an added danger point.

The varying widths of many important streets in the residential section constitute another serious defect. Street after street is to be found with as many as a half dozen widths in its length across the city. At one point it may be a wide and feasible traffic way and within a few blocks be choked down to a width which utterly unfits it for carrying a heavy traffic burden.

Still another difficulty is the lack of distinction between minor streets and those necessary broad thoroughfares on which the bulk of the traffic may move directly and rapidly through the city.

While we can hardly criticize the early subdividers because they lacked the prophetic vision to foresee the modern motor age, we nevertheless have a valid indictment against their failure to follow a decently comprehensive plan of street layout.

One accidental factor in our original layout has proven beneficial rather than detrimental. That is the cross-grained layout of the central business streets, which now appears as the most fortuitous element in the original design. It has made possible, in the development of the present plan, an arrangement of by-pass routes around the downtown congested area, whereby through traffic may be so routed as to avoid intermingling with the local traffic.

The serious problems produced by our unsystematic methods of street layout in early days force the conclusion that the only successful approach to the problem is a broad and comprehensive viewpoint.

A multiplicity of factors affect the design of a major street plan. We must consider the need of circulation between all districts in the city; the locating of natural and artificial obstacles such as streams, hills, rail-

road tracks, large industrial plants, parks and other large open spaces; the amount and kind of future traffic in various districts which will be produced by the operation of the zoning law; specific objective points of traffic where easy access is necessary, such as freight and passenger railway stations, airports and athletic stadia; the location of schools, since it is unwise to have thoroughfares adjoining them; the location of the most important highways leading from the city; and, finally, we must have readily available data on the details of the existing street improvements and the volume of traffic now using these streets, as shown by traffic counts.

Inspection of the map of the major street plan shows near the center of the city the downtown business district. Stretching out from this hub, like spokes, are the radial routes over which traffic moves directly and rapidly to and from the business district.

Directly encircling the hub are the by-pass streets which enable traffic to avoid the central section and continue across the city. Other through routes facilitate direct cross-town traffic from north to south, or east to west, or serve as diagonal short-cuts. As part of this scheme are those streets, either radial or cross-town routes, which lead directly to the territory beyond the city. Certain streets perform several of these functions. As an instance, Broadway as it exists today is a radial line. It is also a most important connection into suburban territory, and that portion of it which skirts the central business section serves as a by-pass line. With its proposed extension to the north it will become one of our chief cross-town thoroughfares.

Outside of the central district, the average street is of sufficient width for all local purposes. It is those streets which for good reason now are used as thoroughfares, or which lend themselves to development as such, which must be considered. As far as possible existing streets have been utilized in this plan. Some will serve without change. Others will require only widening of the roadway or trimming of a corner to eliminate a small jog. On some, however, the street itself needs widening and in a few instances it has been found necessary to advocate the opening of new streets.

In this connection the distinction between a roadway widening and a street widening must be clear. The roadway is that part of a street between the two curbs. The street is the entire space between property lines. A roadway widening merely necessitates setting back the curbs, whereas a street widening requires acquisition of private property.

While there are 1,030 miles of streets in Denver, this plan concerns only 185 miles, or 18 per cent of the total.

In presenting this plan, the Denver Planning Commission is convinced sound principles and real vision have been applied in its production. It must be realized that the present capacity of our streets is considerably dependent upon traffic regulation and that the creation of an ideal street system would still necessitate intelligent traffic handling.

Further, it must be distinctly understood that this plan contemplates a long-time program for street improvements. It is not the intention to advocate tremendous immediate expenditures. The order in

which the various improvements shall be undertaken will depend somewhat on circumstances, but the Commission does advocate the adoption of a financial plan for carrying out the schemes consistently, and that the year to year expenditures for street improvements follow the plan. Many American cities can show remarkable accomplishments over the past ten or fifteen years in revamping their street layout to meet changed conditions.

1. CENTRAL BUSINESS DISTRICT

The streets between Broadway and Larimer Street, and between 13th and 19th Streets, comprising the principal downtown section, are uniformly 80 feet in width. Because of the intensive development with large buildings, street widening, though desirable, would be prohibitive in cost. Here, however, traffic movement would be improved by widening the present 48-foot roadways to 56 feet, a dimension which will better accommodate a line of parked cars at each curb, and two moving lines of cars in each direction. This leaves space for 12-foot sidewalks. At the present time 15th and 16th Streets have 50-foot roadways, and the Arapahoe Street roadway has recently been widened to 56 feet in accordance with this general recommendation.

On certain of these streets, notably 15th, 16th and 17th Streets, the need for wide sidewalks is so great that it would be inadvisable to reduce their width to obtain wider roadways, and because of the great number of street cars on the streets, a great increase of motor vehicles would only add to the confusion. Removal of street car lines from 16th Street is a question which should be considered in the future, substituting therefor a motor coach line for local use along the street.

ARAPAHOE STREET

In widening roadways of the downtown strets, the improvement should be carried at least as far as Broadway to the east, Speer Boulevard to the west, and to the railroad tracks or viaduct to the north. Because of their function in the major street system, the most important streets for roadway widening are Welton, California, Arapahoe (already completed), 14th and 18th Sts.

2. TRAFFICWAY AROUND CENTRAL DISTRICT

For the relief of downtown street congestion a belt line of wide streets is proposed to form a circuit about the business district. Such a by-pass line will serve as a carrier for cross-city traffic and thus relieve the inner streets of this unnecessary burden, and also as a distributing street for traffic which destination is inside the belt. For this purpose streets have been selected which either have exceptional width or which may be widened at a justifiable cost. The traffic way would consist of the following:

Larimer or Market Street from Twentieth Street to Speer Boulevard

Speer Boulevard from Larimer Street to Colfax Avenue

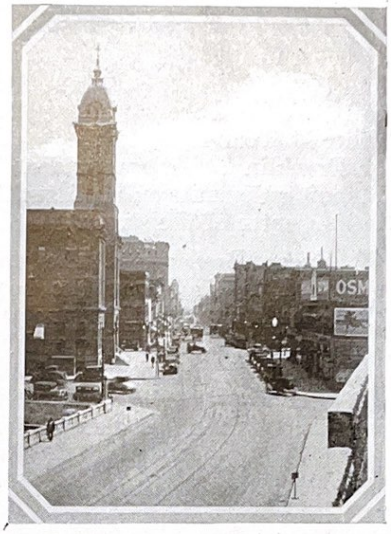
Colfax Avenue from Speer Boulevard to Broadway

Broadway from Colfax Avenue to Twentieth Street

Each of these streets extends directly into or has easy connections with outlying districts which contribute the bulk of downtown traffic.

Broadway and Colfax Avenue, each 100-foot streets, will carry eight lines of traffic by widening the roadways to 72 feet (Broadway now having 60 feet and Colfax Avenue 48 feet).

Either Larimer or Market Street should be widened from 80 to 108 feet, by setting back the fronts of buildings on one side of the street. Because of the value of the present improvements, and the fact that land values are not increasing here, this would perhaps be the last section of the "belt" to be improved.



LARIMER STREET

Twentieth street should be widened from 80 to 130 feet by taking 50 feet or two lot on the west side of the street. This will provide a 56-foot central roadway for through traffic separated by narrow "islands" from a 20-foot roadway on either side for local traffic. The low valuation of existing improvements on the street make the project feasible now, but with the inevitable spread of the business district the opportunity will be lost within a few years.

Speer Boulevard should be widened 16 feet on the east side. This street is almost unique in the existing street plan of the city, and serves so successfully as a by-pass street and a diagonal short-cut that it already is filled to capacity at the rush hour. (See Traffic Count, August, 1929.) Here, as a protective measure, action should be taken at once to require new structures to be set back 16 feet to the future street line. The space gained would eventually be added to the roadway, which should be widened from the present 40 feet to 56 feet. This improvement should be carried eastward to Broadway.

The west side of Speer Boulevard should be opened between Colfax Avenue and Larimer Street, and a portion of Cherry Creek bridged over between Market and Larimer Streets. This would enable the south bound traffic from the 14th Street viaduct to make an easy connection from Market and 14th Street diagonally across the creek to the end of West Speer Boulevard at Larimer Street, thence continue along the west side of the creek.

3. PRINCIPAL RADIAL STREETS

In the street plan, no item is of greater importance than direct routes of adequate width from the business center to every outlying district and to suburban territory. Near the business district nearly all radial streets assume the importance of thoroughfares. Farther out the distance between radials naturally becomes greater, a half mile, or, in sparsely settled districts, a mile is not too great.

The following radial streets are considered in order, taking first East Colfax Avenue and proceeding clockwise on the city plan:

East Colfax Avenue: Formerly a principal residence street, now in large part zoned for business, and the principal artery through the Capitol Hill apartment house district, it continues as U. S. Highway No. 40 through the adjoining town of Aurora toward Kansas City. It has a width of 100 feet except for a critical half mile between Grant and Downing Streets, where it is 80 feet. Here it should be widened to 100 feet and the roadway between Broadway and Colorado Boulevard widened from 48 to 72 feet. (Recently a portion of the roadway east of Franklin Street was widened to 66 feet on recommendation of the Planning Commission until such time as the street car tracks are moved to the center of the street.)

Speer Boulevard: The proposed widening of Speer Boulevard eastward to Broadway has been described. Beyond Broadway this street leads into First Avenue at Downing Street. This section of First Avenue, between Downing and York Streets, should be widened from 60 to 80 feet when development of the district east of York Street takes place, and an extension of Speer Boulevard would then be made following Cherry Creek, as planned for the East Denver Park District.

Broadway Southward: This 100-foot artery extends unbroken through all of South Denver and the adjoining town of Englewood. It serves the largest shopping center outside the central business district, and is frequently filled to capacity. The 60-foot roadway should be widened to 72 feet from the Civic Center to Alameda Avenue in the near future, and later to the city limits.

Santa Fe Drive: From Colfax Avenue and Speer Boulevard, this street makes direct connection southward to the heavily traveled Colorado Springs highway, where its width of 60 feet could only be increased at disproportionate expense. Between Third and Alameda Avenues, a widening to 80 feet is recommended. At this point it becomes a 100-foot thoroughfare along the Platte River, as far as Mississippi Avenue. Thence to the city limits it should be widened from 60 to at least 80 feet. Kalamath Street may be used as a relief street parallel to Santa Fe, between Third and Colfax Avenues, and much of the through travel diverted to it. The grade crossing of the Rio Grande and Santa Fe railroad lines should be eliminated at an early date.

New Southwest Radial Thoroughfare: Beginning at the intersection of Cherokee Street and 14th Avenue, at the site of the new City Hall, a new street with a minimum of 80 feet is proposed to the

southwest, which would cross Cherry Creek at 12th Avenue and continue to a point just south of the Rio Grande R. R. shops, where a short viaduct would span the tracks; thence to the existing bridge over the Platte River on Third Avenue; thence to connect with Alameda Avenue, approximately at Bryant Street. This projected street line traverses open ground for a large part of the distance, and for the rest meets inexpensive improvements. It would be of the utmost usefulness in providing a direct route from all points east and north of the Civic Center toward Barnum and the Morrison Road, where new suburbs are springing up. It is well known that within the city limits development of this southwest sector has long been retarded because of inadequate street approaches. Traveling toward the Civic Center on this street, an impressive view of the new City Hall would be obtained.

West Colfax Avenue: Between the Civic Center and Speer Boulevard, Colfax Avenue has been considered as part of the by-pass trafficway. West of Speer Boulevard it continues as an important artery, with its viaduct over the railroad yards and industrial district, and its extension as U. S. Highway No. 40 traverses a suburban farm district and becomes the principal approach to the Denver Mountain Parks. Between Federal and Sheridan Boulevards the roadway should be widened to 56 feet.

North Speer Boulevard: Leading northwest from the old City Hall via the 14th Street viaduct, this artery continues unbroken to Irving Street, where it stops abruptly. This part of the city is at present laboring under an inadequate street system. It is proposed to extend Speer Boulevard as a 100-foot street diagonally from Irving Street to meet 46th Avenue at the southwest corner of Berkeley Park. A slightly meandering line may be followed to avoid some of the improved property which will in no wise impair the efficiency of the street. This important traffic line will then extend entirely across the city from southeast to northwest. At West 38th Avenue it makes direct connections for the middle Golden Road, at West 44th Avenue for the north Golden Road, and, at the city limits on Sheridan Boulevard for the Arvada Road.

Twentieth Street Extension: Recent traffic counts show that the Twentieth Street viaduct is now filled to capacity at rush hours. At its northern terminus at 33rd and Osage Street, this stream of traffic meets the narrow streets of North Denver, and must laboriously climb to the hill on 33rd Avenue or filter through the local streets northward. From the end of the viaduct is is proposed to extend Twentieth Street, 100 feet wide, to Federal Boulevard at West 46 Avenue. The usefulness of such a street would compare with that of the existing line of North Speer Boulevard between the 14th Street

viaduct and Federal Boulevard, but its alignment and grade would be somewhat better.

Broadway, North: After a long controversy, Broadway has been extended across the angling streets of the downtown section to Walnut Street, where the viaduct carries the traffic northeastward into the Brighton Road. This is an invaluable thoroughfare and it should be carried directly to the north, opening the street to 42nd Avenue, thence widening the existing street from 60 to 100 feet to the city limits at 52nd Avenue. A viaduct will be required over the Burlington R. R. and a bridge over the river. Broadway at the city limits now connects with a county road through good farm land, which leads toward Johnstown. Outside the city, a highway should be built parallel to the Colorado and Southern R. R., connecting Broadway with the state highway on the line of Federal Boulevard. The project would thus provide another outlet and a most direct one to the cities of northern Colorado. From the Civic Center to 20th Street the present 60-foot roadway should be widened in the near future, and as traffic requires, from that point northward.

Larimer Street: Much of the through traffic, formerly on Larimer Street beyond Broadway, is now carried by the Brighton Road. Larimer, however, is the longest street northeastward from the lower business district and will pick up additional travel when the connection is made from Walnut Street into 39th Avenue, as recommended, and also if widened as part of the by-pass trafficway between Speer Boulevard and Broadway. The roadway east of Broadway eventually should be widened to 56 feet.

Arapahoe, Champa, California and Welton Streets, though shorter than Larimer Street, serve as radials in the same direction. The rate of development of the northeast sections of the city will determine the possible need for roadway widening on these streets between 20th Street and Downing Street.

East 18th and East 17th Avenues: From Broadway eastward, 18th Avenue leads through the north end of the Capitol Hill section, where old residences are fast making way for an intensive development of apartment houses and local business centers. At York Street, around the corner of City Park, the through mixed traffic may be carried into 17th Avenue as far as Colorado Boulevard, thence 17th Avenue becomes a parkway. At Quebec Street, 17th Avenue narrows to a 60-foot street. It is recommended in the park plans that 17th Avenue be widened to 100 feet between Quebec and Valentia Streets, and that a short diagonal street be cut from Valentia Street to the intersection of Zenia Street with Colfax Avenue. This would provide a direct and attractive route for passenger vehicles entering the city on Highway No. 40. Between Broadway and York Street the present inadequate roadway of 18th Avenue should be widened to 50 feet, which will leave untouched most of the valuable street trees.

4. NORTH AND SOUTH THOROUGHFARES

Sheridan Boulevard: This street, on the extreme edge of town,

is the only thoroughfare in its district running the length of the city. As the west side of the street lies in Jefferson County, the question of its improvement and desirable widening should be considered by the city and county jointly, when further studies are made for the territory adjacent to the city.

Tennyson Street and Lowell Boulevard: These two streets are marginal streets alongside Berkeley and Rocky Mountain Lake Parks. As secondary thoroughfares they carry more traffic than local streets, but the expense of widening would not be justified on the basis of traffic requirements which can be predicted at this time.

Federal Boulevard: This is the principal cross-city route west of the Platte River. At present it is practically the only outlet to Boulder, Longmont, Fort Collins, etc. It connects north Denver with the Barnum district and meets the Morrison and Fort Logan roads. Between Fourth and Eighth Avenues, now 60 to 70 feet in width, it should be widened to 90 feet, and between 46th and 49th Avenues, to 100 feet. Widening of the roadway to 56 feet is urgently needed, between Speer Boulevard and the north city limits, and will later be required from Speer Boulevard south.

Tejon and Umatilla Streets: Tejon is one of the existing thoroughfares of North Denver. It is well improved and is the principal approach to the 16th Street viaduct. North of its intersection with West 30th Avenue, a short cut should be made through a shallow block, now vacant, to Umatilla Street to make an effective connection with North Speer Boulevard.

Bryant, Water, Platte and Navajo Streets: These several streets should be linked together to form a continuous thoroughfare west of the Platte River. It would be of particular service as a trucking street on the river level through the industrial district. Starting north from West Colfax Avenue under the viaduct, Bryant Street is followed to West 20th Avenue; thence a new connection should be cut to Crescent Drive, between West 21st and West 22nd Avenues. Here Crescent Drive should be widened from 40 to 80 feet to Water Street (the west side of the street being unoccupied); thence Water Street is used, making a new connection with Platte Street south of the 14th Street viaduct. Platte Street is followed to 19th Street, connecting here with a bridge and with Navajo Street.

A River Bank Thoroughfare in South Denver: Between Alameda and Colfax Avenues a new thoroughfare is proposed along or near the east bank of the Platte River, utilizing in part existing streets. Its feasibility would be contingent on moving the Santa Fe R. R. somewhat to the east near the Rio Grande tracks, which is advocated to simplify the grade crossing elimination at Santa Fe and Kalamath Streets. Between Eighth and Colfax Avenues, Zuni Street, as part of this artery, should be widened to 80 feet and opened between 12th and 13th Avenues; similarly Yuma Street should be widened between 5th and 7th Avenues.

Seventh Street: From Colfax Avenue northward, Seventh Street is an important industrial street. At Platte Street it connects with

Zuni Street, which meets North Speer Boulevard. Zuni Street, in the block between Platte Street and West 26th Avenue, should be widened from 40 to 80 feet to eliminate this bottleneck.

Osage Street: In the opposite direction, from the foot of the Colfax Avenue viaduct, Osage Street serves southbound industrial traffic. However, it dead-ends near Tenth Avenue, and from this point should be opened, parallel to the railroad tracks to Eighth Avenue.

Acoma and Bannock Streets: Between the Civic Center and Speer Boulevard, both these streets are important outlets from the business center. South of Speer Boulevard an effective thoroughfare may be obtained by carrying the through traffic on Acoma Street to Ellsworth Avenue, where the streets jog, and here cutting a corner to meet Bannock Street, which is followed to Alameda Avenue.

Lincoln Street: As additional relief to Broadway, near the center of town, Lincoln Street should have the roadway between 20th Street and Speer Boulevard widened to 56 feet. Lincoln Street has a width of 90 feet, though the roadway is but 35 and 36 feet along this distance.

Grant Street: From 20th Avenue to Speer Boulevard, this is an important link in through-town travel, and relieves Logan north of Speer Boulevard. It will require a bridge over Cherry Creek. Grant Street is 90 feet wide, excepting the one block between Speer Boulevard and 6th Avenue. This one block should be widened immediately from 66 to 90 feet, on the west side of the street, where the land is now vacant. From 6th to 8th Avenues, the roadway should be widened to 48 feet to correspond with the width north of 8th Avenue.

Logan Street: North of Speer Boulevard, the through travel will use Grant Street instead of Logan as it now does; but Logan will continue to draw a heavy local traffic, due to its churches, hotels and apartment houses. The present 30-foot roadway should be widened to 36 feet, it now being inadequate for the load imposed on it.

South of Speer Boulevard, Logan Street is a very valuable thoroughfare to South Denver. The variations in its width, from 60 to 129 feet, illustrate the necessity of comprehensive planning and correcting this condition as far as practicable. Between Speer Boulevard and Bayaud, Logan Street should be widened from 66 to 80 feet. From Virginia to Iowa Street, widen roadway to 54 feet. From Evans Avenue to Yale Street, widen the street from 60 and 65 feet to 84 feet to correspond with existing width north of Evans.

Downing Street: The present width of this street also varies greatly; the section immediately north of Colfax Avenue is 94 feet; south of Colfax, 60 feet. It is of special importance in the city plan, being midway between Broadway and York Street, and is the first street east of Broadway which extends north as far as Walnut Street, due to the interposition of the downtown street system at an angle. To the south it by-passes Washington Park and may be extended byond the city limits to Hampden Avenue in Englewood. North of

Colfax Avenue, the roadway should be widened to 56 feet. Between Colfax and 3rd Avenue the street should be widened from 60 to 80 feet, and between Jewell and Yale Avenues, from 63 to 80 feet.

Gilpin Street: Gilpin Street serves as a link in the Brighton road from 46th Avenue north to the Chicago, Burlington & Quincy Railroad tracks. For this reason this section of the street should be widened from 66 to 80 feet.

York Street and University Boulevard: This existing thoroughfare traverses the entire city, with a width varying from 60 to 100 feet. It is suggested it be given the one name "University Avenue." As an important artery it by-passes City Park and connects at the north with the Brighton Road. To the south is passes the University of Denver campus and is the principal approach to the country clubs and suburban development a few miles south of the city limits.

Between Yale and Iliff Avenues, University Boulevard should be widened from 80 to 100 feet, and between Cedar and Sixth Avenues, now varying widths, widened to 80 feet. Between 6th and 9th Avenues, York Street should be widened from 60 to 70 feet, with a 40-foot roadway to preserve trees. Between 14th and 21st Avenues, widen roadway to 52 feet. Between 40th and 52nd Avenues, widen the street from 60 to 80 feet.

Steele and St. Paul Streets: While distinctly a secondary line, a traffic way of considerable value may be had by following St. Paul Street from the south city limits to Mexico Street, thence cutting a corner to lead into Steele Street. It will follow Steele Street to Mississippi, thence using Bonnie Brae Boulevard, a diagonal street, to join University Boulevard at Exposition Street. The street widths are satisfactory except one block between Iliff and Warren, which should be widened from 55 to 70 feet.

Colorado Boulevard: Already an arterial street through its middle section, this street in the future will have much the same importance as York and University Streets. Alongside City Park, it has the advantage of little cross traffic. It should be extended north to meet the Brighton Road at Sand Creek. The south end of the street is on the city line—a three-mile stretch between Alameda and Yale Avenues. Here the street should be widened to 100 feet. If possible, this should be done in co-operation with the county authorities. The roadway between 17th and 23rd Avenues, which carries street car tracks, should be widened to 56 feet.

5. EAST AND WEST THOROUGHFARES

45th and 46th Avenues: This is the farthest north of the continuous routes and the only available east and west through line in a large territory, owing to the interposition of the diagonal layout of the street system from the central business district northeast. Some years ago, 46th Avenue was widened to 100 feet between Colorado Boulevard and the Platte River. It has a width of more than 100 feet between Federal and Lowell Boulevards.

From the west end of the new 46th Avenue bridge, Washington Street is used to make connection with 45th Avenue; and 45th Avenue

followed to the Colorado & Southern right-of-way. Thence a short diagonal is extended parallel to the railroad, to West 44th Avenue. Here is proposed a viaduct on the line of 44th Avenue to cross the railroad and an industrial plant. From Quivas Street and West 44th Avenue, a new connection extends to Zuni Street and West 46th Avenue. Thence West 46th Avenue is followed to the city line.

Between Tennyson and Lowell, widen 46th Avenue, now 65 and 70 feet, to 100 feet; and between Federal Boulevard and Zuni Street, widen from 66 to 100 feet. Open and widen 45th Avenue from 60 to 80 feet between the C. & S. R. R. and Washington Street and similarly widen Washington Street to 80 feet between 45th and 46th. East of Colorado Boulevard, East 46th Avenue should be widened from 60 to 100 feet and extended through unplatted land to the eastern city limits.

West 44th Avenue: This street is important in being the extension to town of the North Golden Road, and serving the farm district west of the city. Between Lowell and Sheridan Boulevards, now varying widths, widen to 80 feet, and between Federal and Lowell Boulevards, widen roadway to 56 feet. Between Tejon and Inca Streets, now varying widths, widen to 80 feet; here much of the bordering land is not yet platted.

East 39th Avenue, East 42nd Avenue, and County Road: If linked together these streets will provide a needed arterial route in the northeast part of the city. From the 38th Street subway it leads east on 39th Avenue to York Street; thence diagonal connection to 42nd Avenue; on 42nd Avenue to Colorado Boulevard; thence a short connection to the old county road parallel to the Union Pacific R. R.; and on this road eastward to the city limits. This thoroughfare will be needed in the future development of a large area zoned for industries, connecting this territory with the central industrial district via Larimer Street, and with the Globeville district via the 38th Street subway and Washington Street. Thirty-ninth Avenue should be extended through one block westward from Lafayette to Walnut Streets; it should be widened and opened from 68 to 80 feet, from Lafayette to York Streets. At York Street, a new street should be cut diagonally to 42nd and Clayton Streets, and 42nd Avenue widened from 60 to 80 feet eastward to Colorado Boulevard. The County Road should be widened from 60 to 100 feet.

West 38th Avenue: This street is the direct extension of the Middle Golden Road, and like West 44th Avenue, serves a farming district out of town. Between Sheridan Boulevard and Vrain Street, widen roadway to 56 feet; between Vrain and Lowell Boulevard, widen the street from 60 to 80 feet. On both West 38th and West 44th Avenues, it may be advisable to omit from the widening those local business centers where recent improvements would make the change in street width unduly costly. At such points the roadways should be widened as far as practicable. Thirty-eighth Avenue should be extended eastward from Elati Street across the proposed extension of Broadway to the Brighton Road.

West 32nd Avenue: From North Speer Boulevard westward, this is a well improved street. Widening the roadway of the short streets arounds the west and north sides of Highland Park to 36 feet will make an effective connection with West 33rd Avenue at Federal Boulevard.

West 26th Avenue: Through traffic uses this street between the 14th Street viaduct and Edgewater, west of the city. It should be widened from 60 to 80 feet between Zuni Street and Platte Street, and between Tennyson Street and Sheridan Boulevard. A direct connection should be made from Platte Street to the viaduct on this line of 26th Avenue.

East 32nd Avenue: This street is an excellent artery connecting East Denver and the municipal airport with the central business district via Champa Street. Its western extremity deadends at Downing Street. This should be corrected by extending it through a small triangular point of the block to make a direct connection with Champa Street. East of Colorado Boulevard, the street is 120 feet wide. The roadway should be widened to 56 feet throughout.

East 26th Avenue: From the northern Park Hill district, this is the most practical line to the center of town. It connects with Welton Street, by-passes City Park and extends into the country beyond the city line. East of Colorado Boulevard, it has the width of 100 feet. Between Welton and York Streets, the roadway should be widened to 56 feet.

East 23rd Avenue: As a direct lead from the heart of Park Hill to the business district, this street is heavily traveled. It passes through City Park south of the golf links and through the local business center of Park Hill. To make a satisfactory connection downtown, it should be opened from Court Place to Welton Street.

East 14th Avenue: Supplementing Colfax Avenue, this street is already used as a thoroughfare, and, because of traffic congestion at Broadway and Colfax, many vehicles will continue to use 14th Avenue as a lead to the business district, passing around the south side of the Civic Center. The many apartment houses and churches on 14th Avenue contribute to its traffic. Between Broadway and Washington Street, widen the roadway to 56 feet, and between Washington and Josephine Street, widen the roadway to 44 feet, to preserve the street trees.

Sixth and Eighth Avenues: The large section of town between Colfax and Alameda Avenues at present has no through east and west streets. Cheesman Park is one considerable barrier, and west of Broadway, the Rio Grande shops make a cross-town route difficult. The route herewith described seems to be the most feasible. It will give the Barnum district a much-needed approach from the city, connect Barnum with West Denver, and serve as a cross-town line of prime importance. West of the city limits, Sixth Avenue becomes a county road. From the city limits, Sixth Avenue is followed to King Street; a jog, in the middle of the block between Lowell and King Street, should be eliminated. Thence King Street is followed to West 8th Avenue; thence on West 8th Avenue to a proposed viaduct over

the railroad tracks and around the Rio Grande shops to Mariposa Street. Continue on 8th Avenue over the new bridge at Bannock Street and east to Monaco Street. Sixth Avenue should be widened from 60 to 80 feet between Sheridan Boulevard and King Street. Eighth Avenue between Federal Boulevard and Raritan Street, now of varying width, should be widened to 80 feet and the short viaduct constructed on Eighth Avenue over the railroad. The Rio Grande railroad has offered serious objection to this viaduct because of its interference with their shop buildings, but no alternative location appears satisfactory to the city. Between Colorado Boulevard and Monaco Street, East 8th Avenue, now 56 to 70 feet in width, should be widened to 80 feet and the jog eliminated at Colorado Boulevard.

First and Third Avenues: As a second east and west thoroughfare in the district between Colfax Avenue and Alameda Avenue, 1st and 3rd Avenues may be connected. By using the new 3rd Avenue bridge over the Platte River, this route connects the south part of the Barnum district with the South Denver business section at 1st Avenue and Broadway, and with the Country Club and Harman residence sections. It follows West 1st Avenue from the west city limits to Raleigh Street, where it would meet the proposed Weir Gulch thoroughfare. This would carry past the south side of the proposed extension of Barnum Park, on 3rd Avenue. Third Avenue should be opened to a width of 80 feet between Clay and Umatilla Streets, and the jog eliminated at Federal Boulevard. Santa Fe is used to 1st Avenue, thence east on 1st Avenue to Colorado Boulevard.

From Santa Fe Drive to Downing, widen the roadway of 1st Avenue to 50 feet, and from Downing to York, widen the street to 80 feet as described in the extension of Speer Boulevard. Extend 1st Avenue from York to Steele Street 80 feet wide through unplatted land.

Alameda Avenue: In the future development of the city, this street is one of the most important east and west arteries. It traverses the city, picking up the travel from the end of Morrison Road, and extends east of the city line to Fairmount Cemetery and beyond. Its width varies greatly, and in part it is on the south city line. The Alameda Subway and Platte River bridge are excellent improvements. A bridge over Cherry Creek is needed.

Between Tejon and King Streets, Alameda Avenue should be widened from 60 to 100 feet. Between Logan and University Streets, widen from 60 to 80 feet; and between University Street and Steele Street it should be opened to 80 feet. From Cherry Creek (Cook Street) to Colorado Boulevard widen from 75 to 100 feet. From Colorado Boulevard to Birch Street open to a width of 100 feet; and from Birch Street to Yosemite (city limits) widen from 60 to 100 feet, as provided in the park plans. The several jogs in alignment of Alameda Avenue east of University Street should be corrected when widening the street.

Mississippi and Louisiana Avenues: Washington Park is a barrier to east and west streets in this part of South Denver. The line

of Mississippi Avenue is established east from Federal Boulevard with a bridge over the Platte River. Where Mississippi meets the proposed street along the C. & S. R. R. right-of-way, this new street is used to make a diagonal connection from Mississippi to Louisiana Avenue. Louisiana Avenue then is followed to Steele Street, by-passing Washington Park on the south. Between Huron and Kalamath Streets, Mississippi should be widened from 60 to 80 feet.

Florida, Iowa and Mexico Avenues: Florida Avenue extends west of the city limits to connect with Federal Boulevard. Inside the city limits, it by-passes Overland Park. At the intersection with Santa Fe Drive, through traffic must jog south a block to reach the Iowa Avenue subway. This offset should be minimized by constructing a curving drive through the southeast corner of Overland Park. Thence Iowa Avenue is followed eastward to Humboldt Street to meet the proposed street parallel to the C. & S. R. R., thence on this street to Mexico Avenue and east on Mexico to Colorado Boulevard.

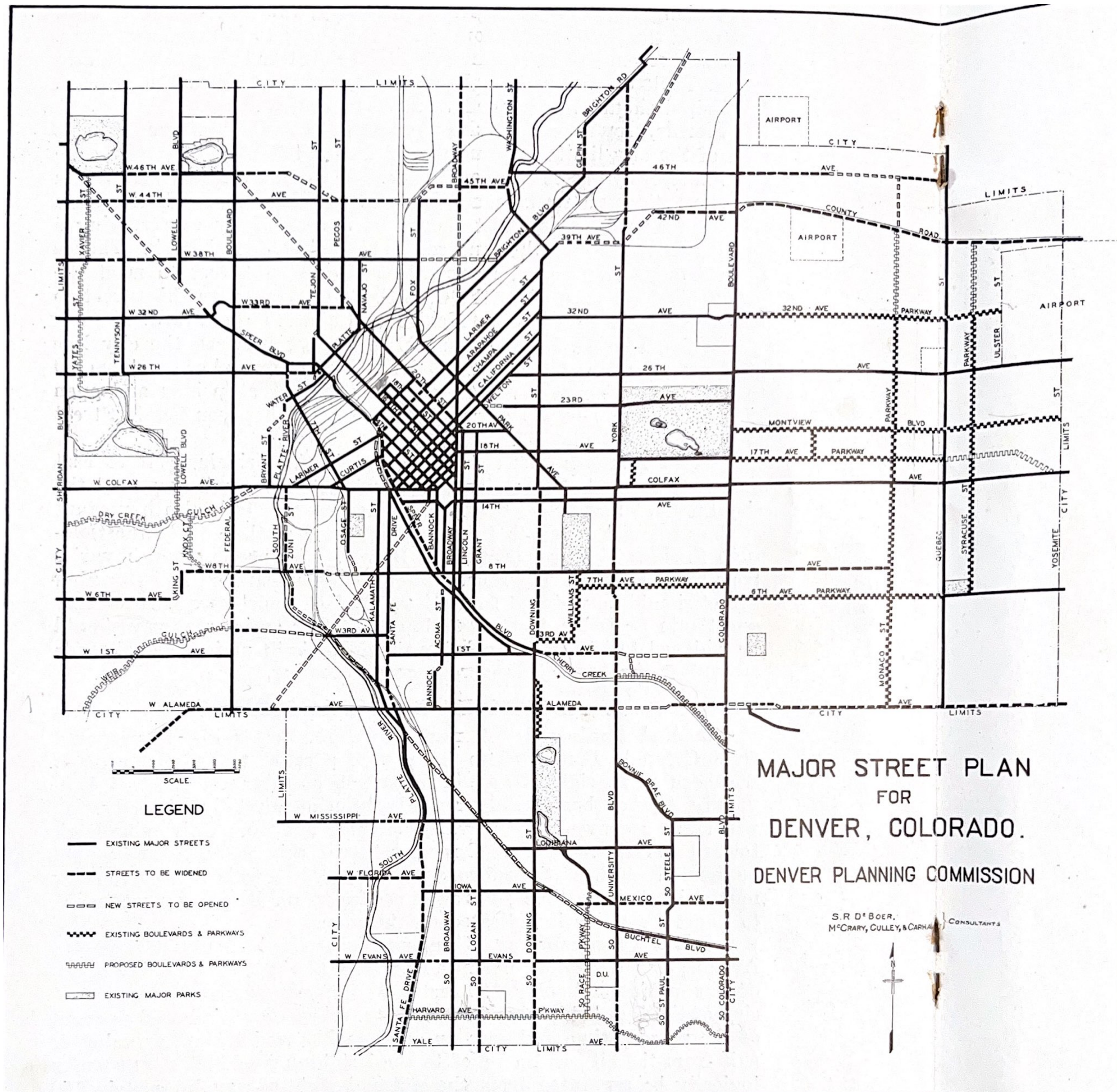
Widen Florida Avenue from 60 to 80 feet between the city line at Pecos Street and Santa Fe Drive. Widen Iowa Avenue from 60 to 80 feet between Acoma Street and Logan Street; widen and open Mexico Avenue, now varying widths, to 80 feet, between Gilpin Street and Colorado Boulevard.

Evans Avenue: This thoroughfare is the principal street east and west through University Park, and extends a mile west of the city limits at Pecos Street to Federal Boulevard. It is also important as the principal approach from the south end of the city to the Colorado Springs highway (Santa Fe Drive). The present width varies from 60 to 110 feet. The short section between Clarkson and Downing Street should be widened from 64 to 100 feet, and between Broadway and Santa Fe Drive, from 60 to 100 feet. The entire roadway should be widened to 56 feet. A subway should be built under the railroads to replace the present dangerous grade crossing.

6. ADDITIONAL DIAGONAL STREETS

Buchtel Boulevard: A new street, 100 feet wide, is proposed from Colorado Boulevard to Broadway, parallel to the Colorado & Southern R. R. right-of-way. The portion of this street east of University Avenue has already recently been acquired by the city. It will make a convenient and valuable short cut from University Park toward the city. East of Downing Street this thoroughfare would be located south of the railroad and west of Downing Street on the north side. A possible future connection from Broadway westward to Santa Fe Drive is indicated on the plan.

D L D Thoroughfare: Commencing at Gaylord Street and 46th Avenue, and extending northeast parallel to the Union Pacific right-of-way, a diagonal street 100 feet wide is proposed as a direct extension of the D L D highway into the city. The ground is largely vacant at the present time and such an artery will provide another valuable exit from the city and a relief to the Brighton road. This street may logically be separated from the railroad right-of-way by a strip 150 feet wide, which would be left available for industrial development.



MAJOR STREET PLAN
FOR
DENVER, COLORADO.
DENVER PLANNING COMMISSION
S. R. De Boer,
McCrary, Culley, & Carha... Consultants
SCALE
LEGEND
EXISTING MAJOR STREETS
STREETS TO BE WIDENED
NEW STREETS TO BE OPENED
EXISTING BOULEVARDS & PARKWAYS
PROPOSED BOULEVARDS & PARKWAYS
EXISTING MAJOR PARKS

Park Avenue and 23rd Street: Park Avenue is in effect an extension of 23rd Street across the rectangular platting of the territory between 20th and Colfax Avenues. With the 23rd Street viaduct, soon to be rebuilt, a direct route is provided from Colfax Avenue to the industrial section of North Denver. The roadway of Park Avenue is now inadequate and should be widened from 33 to 56 feet. Twentieth Avenue, the important connection between Twentieth Street and Park Avenue, which was recently widened to 60 feet, will undoubtedly require additional widening in the future to at least 80 feet.

7. BOULEVARDS AND PARKWAYS

No description of the Major Street Plan would be complete without some reference to the part played in the city's traffic by parkways and boulevards. Major streets are used by both commercial vehicles and passenger cars, whereas parkways and boulevards, on which trucking is properly prohibited, serve not only as park-to-park connections, but also as carriers of a large amount of fast light traffic between residence and business sections, and of crosstown or circumferential traffic. Hence on the map of the Major Street Plan are shown those existing and proposed boulevards and parkways which supplement the major thoroughfares, also two proposed parkways which are not included in the recommendations for extension of the park system within the city. These are the Weir Gulch and Dry Creek Parkways. Their usefulness would largely depend on their extension into suburban territory west of the city, and connection with the Morrison and Mount Vernon approaches to the Mountain Park system. The Weir Gulch line would extend into West Third Avenue, near Federal Boulevard, and the Dry Creek line would meet Federal Boulevard at West 13th Avenue, with a suggested branch viaduct from this point to the Colfax Avenue viaduct. The overcrowded condition of the present highways now leading to the Mountain Parks is evidence of the need for such routes.

Approved by the Major Street Plan Committee:

F. W. Chamberlin, *Chairman;*
W. N. W. Blayney,
H. Brown Cannon,
E. S. Kassler.

I approve of the foregoing report except the widening of roadways, with which I am not in sympathy because of the present method of assessing the cost on the abutting property.

Horace W. Bennett.

Approved by the Executive Committee of The Denver Planning Commission:

John S. Flower, *President.*

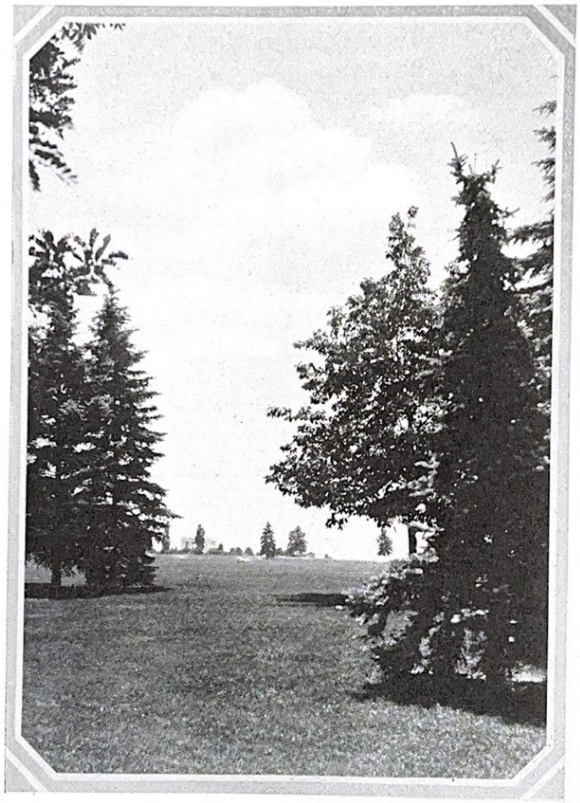
Approved by The Denver Planning Commission, Nov. 26, 1929.

VI. Parks and Boulevards

Extensions of our present park system within the city are of prime necessity if this city is to fulfill its destiny in the years to come.

The park system as it exists today has served us well but with constant population growth its adequacy will be more than doubtful. Denver has maintained a reputation for the beauty of its parks of which it has been justly proud.

As a tourist center it has set a high standard and as the leading city of a tremendous area of mountain and plains states it must continue to do so. There is probably no other single municipal function that has aided Denver's growth so much as its park system. Our vast contributory territory expects us to set an example of civic beauty; for a health center, open spaces in the civic design are absolutely essential. Further, the existence of generous areas of charming parks does more than anything else to impress the visitors who throng here every year with the desirability of Denver as a home city. As the capitol city of Colorado, an additional requirement is imposed on us to build the city so attractively that the entire state may be proud.



IDEAL PARK DEVELOPMENT

All of these reasons for making Denver a beautiful and attractive city are secondary to the main reason, which is that the proper sort of a park system makes the city more liveable, adding vastly to the health, happiness and enjoyment of the citizens.

Denver possesses large areas of mountain park lands and these constitute an almost unique municipal asset. Certainly their value must not be under rated. They have done much toward establishing the city as a tourist center. But for all their natural lovliness and their recreational possibilities, they cannot possibly replace the city parks, which provide open air for

crowded areas, recreational places in home districts and in addition contribute much to the beauty of the city.

Further, it is improbable that we will long continue to believe that crawling over fifty or seventy-five miles of mountain roads, bumper to bumper in a stream of cars, constitutes real recreation. Even at the present time it is doubtful if Denver uses the mountain parks as much as do our tourist visitors. All of which tends to force the conclusion that Denver must continue to make adequate provision for city parks.

If we are to extend our park system materially the park lands must be acquired while open spaces, fitted for park development, are available. In this connection reference to the population study of Denver will show that the growth forecast in numerous districts of the city will shortly cause the disappearance of open spaces in many outlying sections as they have now disappeared in the central portion of the city. Therefore the problem of additional park land must be met very shortly or the opportunity will pass away for ever. Particularly is this true in the Park Hill, Montclair and South Denver and Barnum districts, where the development at the present time is very rapid.

Expansion of park systems is being carried on by cities throughout the country and in this respect Denver is lagging behind at the present time.

Reference to Table No. I, Appendix, will show a comparison between the Denver city park acreage and that of other cities in its class, compiled from the latest statistics of the U. S. Department of Labor.

This table reveals that Denver in 1926 had one acre of park land for 193 persons, while the average of the cities listed was one acre for 173 persons.

The following cities had a better park provision on this basis:

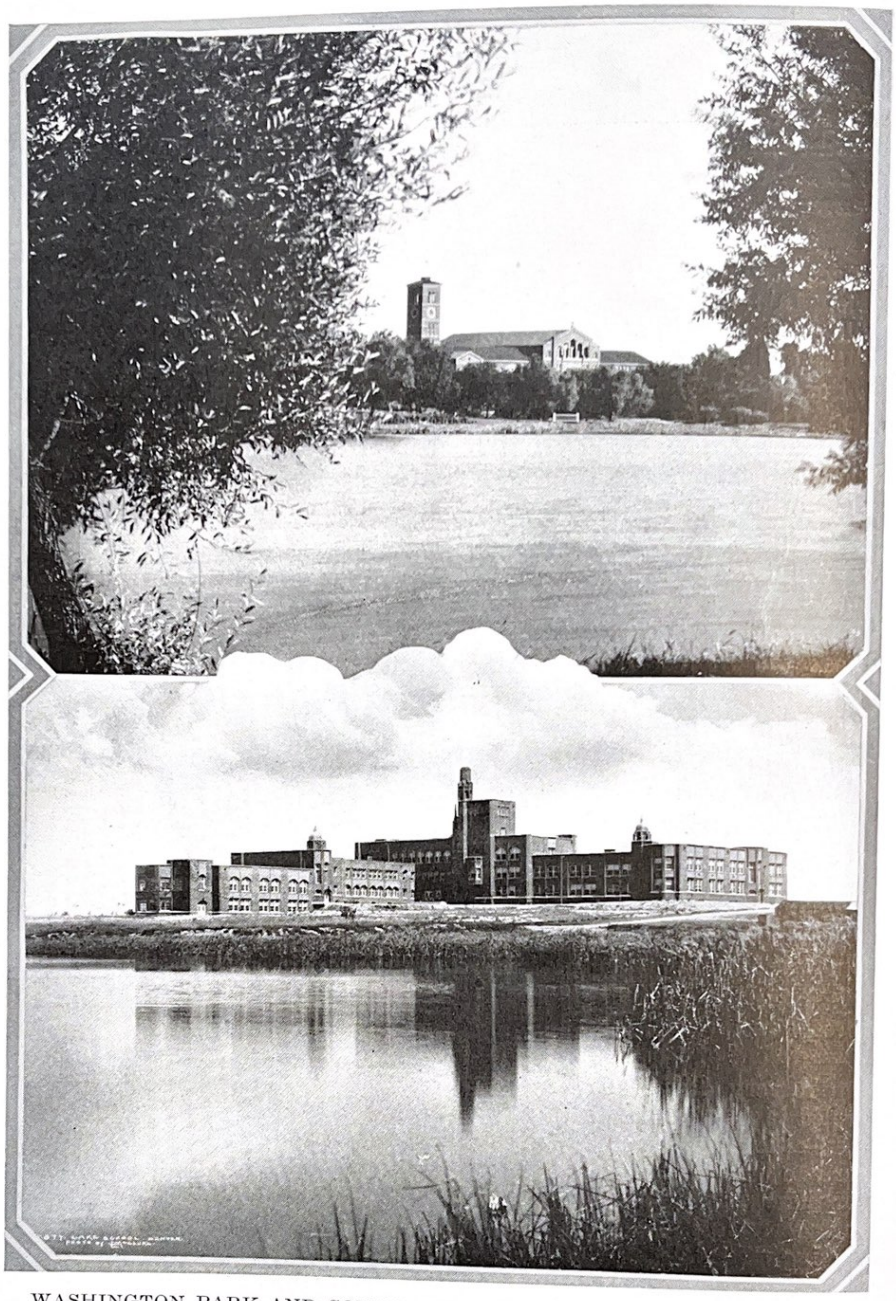
Rochester, Indianapolis, Portland, Kansas City, Minneapolis, Washington, Cincinnati, Seattle and St. Paul.

In 1929, with an estimated population of 320,000, the Denver ratio is now reduced to one acre to 201 persons.

Table No. VII, Appendix, shows the percentage of increase in park acreage in the larger cities between 1916 and 1926, compiled from U. S. Department of Labor statistics.

A very definite trend toward the increase of park acreage is revealed in these tabulations. While the population increase in the seventeen cities of Denver's class has amounted to 20 per cent, the park acreage has increased 33 per cent. This has increased the park acreage for these cities to a point where Denver, which at the beginning had an acreage ratio which was approximately the average, even in 1926, was lagging materially behind.

The ideal ratio which is advocated by the Playground and Recreation Association of America is one acre of park land to each one hundred people. Even the more conservative city planners urge one acre to each 150 people. These are, of course, ideals which in practice may be considerably modified by such factors as the open character of a



WASHINGTON PARK AND SOUTH DENVER HIGH SCHOOL COMPLEMENT EACH OTHER'S BEAUTY AND THE SAME TYPE OF DEVELOPMENT CAN BE PRODUCED IN THE PROPOSED SLOAN'S LAKE PARK.

town, the expense of maintenance of parks or readily accessible outlying park areas, such as our mountain parks. However, considering all such modifying factors for Denver it does not seem unreasonable that we should at least maintain the present ratio of one acre for each 201 people.

To maintain even the present ratio in 1950, Denver must have 2,587 acres of park land. This means that during the next two decades approximately 1,000 acres should be added to the system.

The necessary extension of the park system, keeping pace with the growth of the city, can be obtained in two ways—one is to purchase most of the land needed as soon as possible, the other to purchase land when it becomes urgently needed. It is evident that at the present time many sections of the city are steadily filling up, so that available vacant areas are constantly becoming more scarce and expensive. If purchase of the park land is long postponed, it will become increasingly expensive and eventually prohibitive, and proper distribution of the separate units will be impossible. It would seem then the course of wisdom to make considerable park purchases in the near future while park sites are still vacant, at points where they will give maximum service.

Despite the fact that virtually every family in Denver has some sort of a motor vehicle for use in getting into the open country, our municipal parks are extensively used at the present time, and will be used more with the development of a comprehensive recreational program. The average summer Sunday finds throngs in the parks which use their facilities to capacity. City Park at times of the band concerts has crowds running into the tens of thousands, and on one Sunday in October the visitors to the City Park Zoo were estimated at 12,000. Berkeley and Washington Parks are in like case. The City Park golf course is used by about 80,000 players annually.

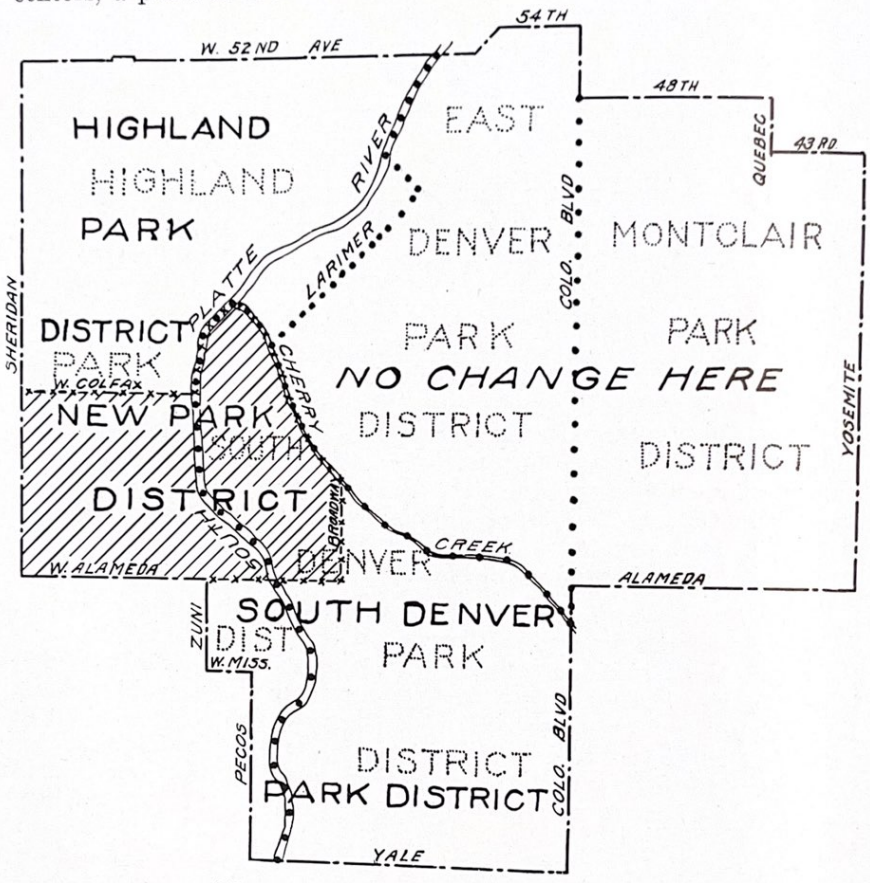
The character of the parks has been changed by motorization. At one time parkways were designed to discharge their traffic into the park. As a result many city parks today are extremely crowded by traffic, which has no place there, and are not fulfilling the purpose for which they were created. Modern park planning calls for a reduction in the number of park roadways and the diversion of through traffic. Through traffic should be carried by the park boundary streets where it will meet intersecting traffic only at park entrances.

Considerable road elimination in the parks has been carried out by our park department. On the major street plan, the boundary streets of City Park, Washington Park and Berkeley Park have been designated for through traffic. Through these measures it is hoped to restore to the park landscapes the quiet, beauty, and recreational value they had at one time.

A type of park which answers most of the needs of the present day is one that is large enough to contain many facilities for active recreation as well as a naturalistic landscape development with a bit

of woodland, open meadow, a sheet of water, flower garden and the like, but still does not compare in size with some of the mammoth parks of other days. The automobile has modified the necessity for the exceedingly large type of park within the city limits. It may well be located in the adjacent country or the mountains where land is cheaper.

Together with the lessening need for parks of vast area has come the realization that the small one-block park is not an efficient unit in the park system, except as a breathing place in densely populated centers, a plaza in the business district, or a minor play center. The



PROPOSED PARK DISTRICT CHANGES

present-day tendency is toward more parks of moderate size or a combined park and playfield, and so distributed as to be readily accessible to everyone.

The city charter has divided the city of Denver into four park districts. The Highlands Park District extends from the extreme southern city limits to Globeville, and from the Platte River to the western city limits, including also the area between Larimer Street

and the Platte River, Cherry Creek and Thirty-eighth Street. The South Denver District is bounded by Cherry Creek, the Platte River and the southern and eastern city limits. Boundaries of the East Denver District are Cherry Creek, Larimer Street, the Platte River, north of Thirty-eighth Street, the northern city limits and Colorado Boulevard. The Montclair District includes all land east of Colorado Boulevard to the city limits.

This districting is arbitrary, as it throws together sections of the city which have little community interest with each other. Particularly is this true of the Highlands District, which takes in the portion of the city west of Overland Park as well as the Barnum, West Colfax and Berkeley sections. Obviously it is difficult to develop a program which is acceptable to all of these sections. If possible, in the future it would be advisable to re-district the city through the passage of a charter amendment.

The following rearrangment is suggested:

A. Highlands District:—North of Colfax Avenue and west of the Platte River to the city limits.

B. South Denver District:—From the following line south to the city limits: Cherry Creek from Colorado Boulevard to Broadway; Broadway to Alameda Avenue; Alameda Avenue from Broadway to west city limits.

C. East Denver District:—Bounded by Cherry Creek; the Platte River, north city limits and Colorado Boulevard.

D. Montclair as at present.

E. A new district bounded by West Colfax Avenue, the Platte River north to Cherry Creek; Cherry Creek, Broadway, Alameda Avenue and Sheridan Boulevard.

The present park districts and the proposed new districts are shown on the accompanying map.

A change in the districts, which are prescribed by the charter, can only be made by popular vote. Park areas now owned by the city are held by the existing districts.

The park extensions outlined in this plan are based on the present park districts. They include the following additions:

Highlands District	300.9 acres
South Denver District	252.1 acres
Montclair District	272.1 acres
East Denver District	87.9 acres
Total	913.0 acres

These additions would increase Denver's total city parks acreage from the present figure of 1,557 acres to 2,470 acres.

In some cases, due to the irregular shapes of the proposed tracts, exact description has been difficult. In these instances the reader is requested to refer to the large park map.

The recommended acquisitions for the various districts follow:

HIGHLANDS PARK DISTRICT

a. Valverde Park, a tract of 72.3 acres, located along the west bank of the Platte River from West Tennessee Avenue to West Bayaud Avenue, as shown on the map. This piece of bottom land, with fine trees, its natural beauty and its frontage on the river, can be transformed into a park at relatively slight cost. It will serve the Valverde district, and will include a major playground and a proposed nine-hold golf course. Part of the land is now owned by the water board.

b. Barnum Park extension, a tract of 44.3 acres between Federal Boulevard, Irving Street and West 8th and 3rd Avenues, as shown on the map. This area includes the bottom of Wier gulch. A park is badly needed in this district. Wier gulch has a steady stream of water which can be dammed to form a lake. The land above the lake site is sloping and can be treated very attractively. A major play center is proposed in this park. The terrain is unfavorable to residential development, and could only be reclaimed at considerable expense for piping the stream, but this very condition makes the land unusually adaptable for park purposes.

c. Sloan's Lake Park extension, a tract of 91.4 acres, which squares out the present park area west to Sheridan Boulevard. Most of this extension covers the portion of the lake not now owned by the city. These two lakes have the finest possibilities for the making of a large park with facilities for swimming, skating and boating. Until the city owns the entire body of water it is impractical to develop this park. The park is to contain a major recreation center.

d. Rocky Mountain Lake Park extension, tracts of land totalling 21.9 acres, as shown on the map. The land to be acquired includes the three corners of the present park which should have been purchased originally for proper development of the park. It has been proposed that this park, together with Berkeley Park, the low land between the two parks and Inspiration Point west of Berkeley park, should be jointly developed as a botanical garden. Denver is the center of a large region of unusual climatic conditions such as high altitude, bright sunlight and low rainfall. On this account horticulture varies widely from other territories. Horticultural crops of particularly high quality may be grown here. A botanical garden would experiment with the best varieties of flowers, shrubs and trees for this area. Such a garden would be of real benefit to the region as well as constituting a park of different character and beauty.

e. Park connection between Rocky Mountain Lake and Berkeley Parks, requiring 10.0 acres. This is planned for an open waterway to deliver the water to the first lake from the latter. At present this water is carried in a pipe which is in such condition it will soon need renewing. Rather than build a new pipeline it is recommended suffi-

cient land be acquired for an open channel which will be treated as a small creek bed. After this connection is made the irrigation of the two parks can be partly done with lake water.

f. Chaffee Park extension, a tract of 5.4 acres. A small triangular park is proposed at West 44th Avenue and Tejon Street as shown on the map.

g. Globeville Park, a tract of 30.3 acres. To make a park of sufficient size for a central playfield and landscaped area, it is proposed to acquire the area between North Broadway, West 45th Avenue, and the C. & S. Railroad.

h. Boulevard connections. As a part of the park plans a boulevard around the city is projected. This boulevard is partly existent in the East Denver and Montclair districts. East 46th Avenue and Monaco Parkway are links already created.

It is proposed to continue the 46th Avenue line over the new bridge across the Platte river, through Globeville, by widening West 45th Avenue to 80 feet; thence over the railroads diagonally to West 44th Avenue by a bridge and along West Forty-fourth Avenue to Pecos Street, widening the avenue to 100 feet.

From Pecos the line runs diagonally along the proposed park to West 46th Avenue and Zuni Street with a width of 100 feet; thence along West 46th Avenue to Federal Boulevard, widening on the north side to 100 feet; from Federal Boulevard the line runs along Rocky Mountain Lake and Berkeley Lake Parks. On King Street a widening of 100 feet is proposed between Rocky Mountain Lake Park and Regis College.

At Xavier Street and West 46th Avenue the circle boulevard is planned to swing southward along Xavier Street to West 37th Avenue, and thence along Yates Street to West Byron Place. It is proposed to widen Yates Street to 80 feet and cut off the corners at the points where the street has jogs. The boulevard continues from Byron Place around Sloan's Lake to Lowell Boulevard. Here it is necessary to acquire a block between West 17th and 18th Avenues and part of a block on Raleigh Street as shown on the map.

The line continues south on Lowell Boulevard to West 13th Avenue. Lowell is 80 feet in width and requires no widening. At West 13th Avenue the line goes to Knox Court and over the Dry Creek bridge on this street and thence south, widening Knox Court to 80 feet to West 9th Avenue, and from this point diagonally to the proposed Barnum park and to Federal Boulevard. The ground to be acquired for the creation of this boulevard totals 35.3 acres.

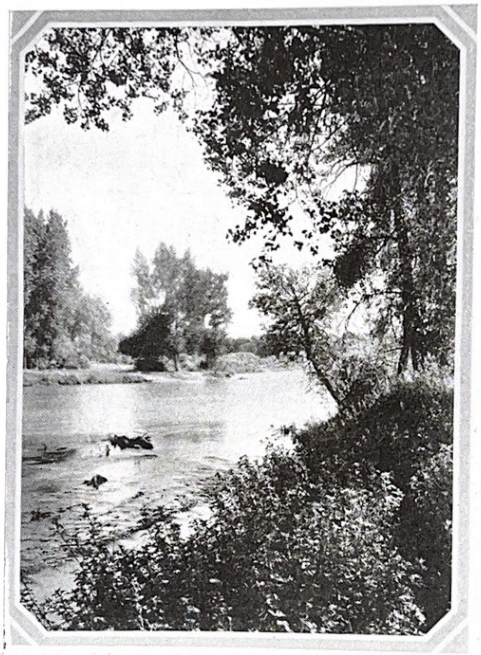
SOUTH DENVER DISTRICT

a. Park between East Mexico and Jewell Avenues, South St. Paul and Monroe Streets, of 34.0 acres. This is a piece of sloping land cut by a gulch on Mexico Avenue. There is no park in this section

at present, and the residential area is rapidly building up. The land is vacant, but is not likely to remain so long. One of the major recreation centers, provided for in the recreational plan, is to be located here.

b. Park between South Steele and Madison Streets, East Kentucky and Tennessee Avenues, a tract of 13.5 acres. This adjoins the proposed high school in this section. A major recreational center is recommended for this park. Wherever it has been possible, schools and neighborhood parks have been combined so that it will be practical to use the school building in the recreational program and also to add to the charm of the setting of the building.

c. Extension of Speer Boulevard from University Boulevard to South Colorado Boulevard, requiring 45.6 acres. It is proposed to create a park strip of 500 feet width following the course of Cherry Creek, with 300 feet of this strip located in this district. The creek bed would be given a different treatment than it has to the west of the country club, with lower retaining walls.

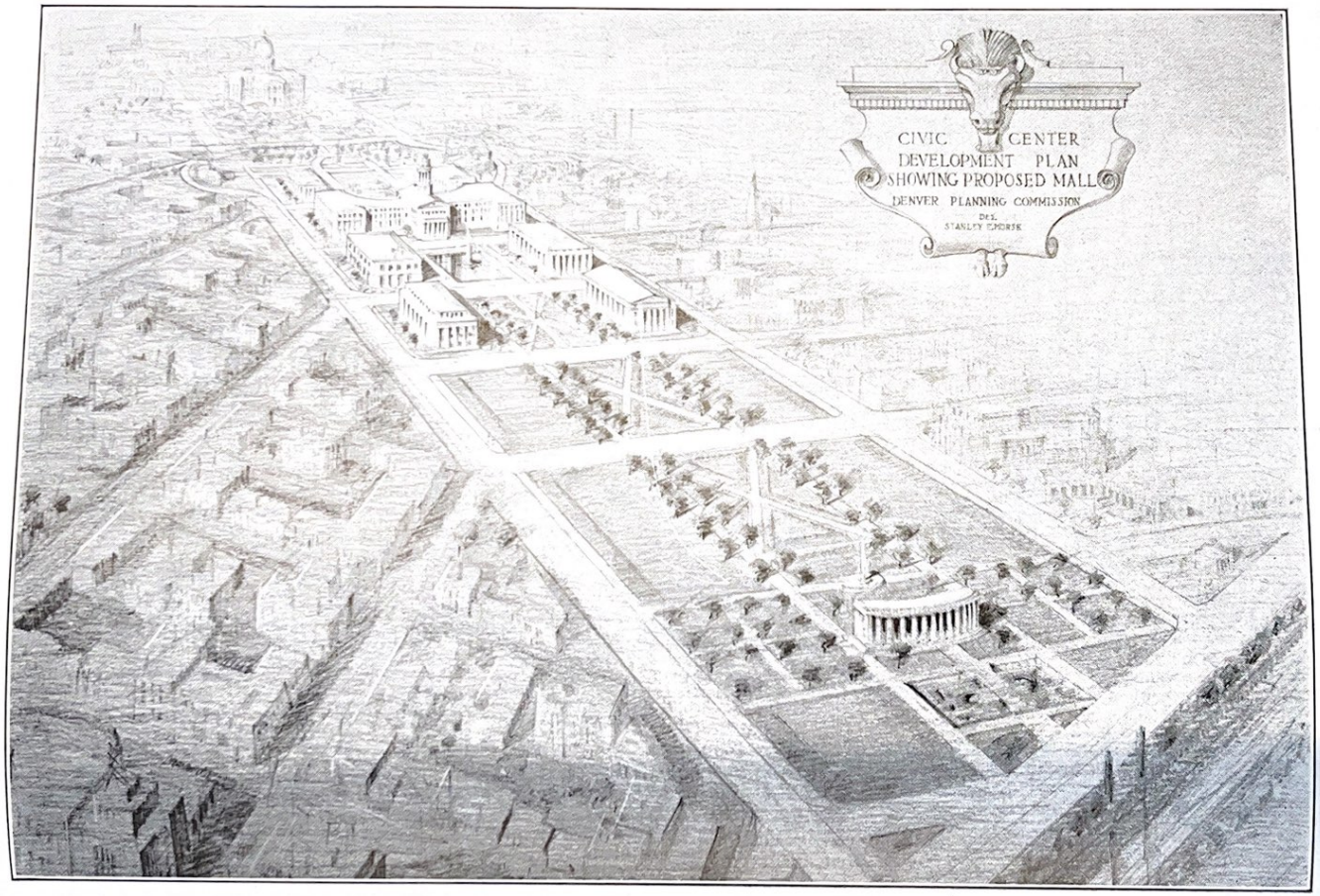


PROPOSED RIVER PARK LAND

d. Park between West 3rd Avenue, the Platte River and Lipan Street, a tract of 32.8 acres. This will give a river park for the densely inhabited district west of Broadway in the vicinity of West 1st Avenue. The site is on one of the two old Archer Lake beds and is partially owned by the Denver Water Board. It is proposed to develop a lake for swimming in this park and also a major recreational center.

e. River Park between Harvard and Yale Avenues along the Platte river and bounded on the east by the line of South Huron Street, an area of 12.2 acres. This strip is necessary to carry the river road to the city limits.

f. Harvard Avenue Parkway, requiring 53 acres. This is the South Denver link in the circular boulevard system. Between the Platte river and South Sherman Street this line is of such character that the eventual necessary widening should be carried out as a future major street project. To the eastward it passes Rosedale Park, and follows the city ditch with a small park in the horseshoe formed by this ditch between South Clarkson and Humboldt Streets. From Humboldt


CIVIC CENTER
DEVELOPMENT PLAN
SHOWING PROPOSED MALL
DENVER PLANNING COMMISSION
DES.
STANLEY ENDERSE

Street it follows the brook to South Colorado Boulevard, with another small park between South Adams and Monroe Streets, East Harvard and Vassar Avenues. From Colorado Boulevard it is proposed to link this parkway with Monaco Parkway by a diagonal line through Arapahoe county.

g. Denver University connection, requiring 14 acres. It is proposed to connect the Denver University campus with Harvard Parkway by a parkway development on South Race Street. This will necessitate the acquisition of a half-block width along the west side of Race Street from Harvard Parkway to East Iowa Avenue, where it connects with Grasmere Parkway.

h. Buchtel Boulevard, requiring 22 acres. This diagonal following the Colorado and Southern right-of-way across the south end of the district is described in the major street plan.

EAST DENVER DISTRICT

a. Recreation center in Capitol Hill district, a tract of 2.4 acres. This section is becoming very densely populated and has very inadequate play facilities, as shown in the recreation report. The original site selected for this playground was between East 10th and 11th Avenues, Lincoln and Sherman Streets, but apartment houses are now being constructed on this block. The southern portion of the block between East 12th and 13th Avenues, Clarkson and Emerson Streets, adjoining the Morey Junior High School playground is now recommended.

b. Speer Boulevard extension, requiring 29.9 acres. This is a 200-foot strip between University and Colorado boulevards, completing the project described in the South Denver district.

c. Golf course, 50 acre tract. The present municipal golf course is leased from the State Land Board. The acquisition of the area bounded by York Street, Colorado Boulevard, East 23rd and 26th Avenues is essential. This purchase should also include a fractional block between York Street and the golf course proper, platted as Block 6, McCullough's Addition, covering approximately six city lots.

d. Art Museum Site, a tract of 2.1 acres. This is the block immediately south of the Civic Center, bounded by Acoma and Bannock Streets, West 13th and 14th Avenues. The need for a proper central building to house the art collections of Denver is pressing. It is proposed that the city should furnish this site fronting on the center, and that the money for the building be raised by private subscription.

e. Civic Center Mall, requiring 3.5 acres. This contemplates the taking of a 200-foot strip through the middle of the blocks to the west of the new municipal building, from Cherokee Street to Speer Boulevard. Creation of this mall would not only create a fine vista for the west facade of the building, but would permit the remaining strips on

each side of the mall to be used for future public building sites. The United States mint now occupies one of these adjoining sites.

MONTCLAIR DISTRICT

a. Mountain View Park extension, a tract of 55.2 acres. This is the area bounded by South Colorado Boulevard, East Alameda Avenue, South Birch Street, East 1st Avenue, South Ash Street and East Ellsworth Avenue, as shown on the map. This park will preserve a very fine mountain view and with the existing park will make a total of 77.7 acres, a portion of which will be devoted to a major district playground.

b. College Hill Park extension, a tract of 67.2 acres which with the present park will total 85.9 acres. The proposed acquisition is bounded by the north line of the present park, Quebec Street, Richthofen Place and Syracuse Parkway. Here again a magnificent mountain view to the westward can be preserved. The school board has acquired three blocks of ground west of Quebec Street. The combination of school and park will make a recreation center possible here.

c. New park, a tract of 36.24 acres bounded by Montview Boulevard, Syracuse Parkway, East 23rd Avenue, and Quebec Street. This park will connect with the Colorado Women's College campus at Quebec Street and Montview Boulevard. It will contain a major recreation center.

d. New park, a tract of 48.2 acres, bounded by East 32nd Avenue, Monaco Parkway, East 29th Avenue, and Ivy Street. This park will serve the rapidly expanding eastern section of Park Hill.

e. Recreation Center, a tract of eight acres, bounded by East 9th and 11th Avenues, Holly and Grape Streets. This will be in conjunction with a proposed school adjoining it.

f. East Alameda Avenue widening, requiring 18.8 acres. To link up with the East Denver district boulevards this project is proposed. It would connect with the Speer Boulevard extension. The street should be widened to 100 feet from Colorado Boulevard to the east city limits.

g. Seventeenth Avenue Parkway extension, requiring 7.52 acres. From Quebec to Wabash Streets this parkway should be widened to 100 feet. From Wabash it should be carried through on a diagonal to Colfax thus making possible a fine approach line to the city of real beauty.

h. Monaco Parkway extension, requiring 4.2 acres. This contemplates the cutting through of this parkway from its present end at East 32nd Avenue to the Union Pacific railroad line.

i. Road along Union Pacific railroad line, from Colorado Boulevard to Syracuse Parkway, requiring 16.48 acres. This is an existing county road which should be widened to 100 feet.

j. Syracuse Parkway extension, requiring 3.6 acres. This would link the present end of this parkway at East 32nd Avenue to the proposed railroad boulevard line, on a width of 100 feet.

k. Richthofen Place extension, requiring 1.28 acres. This proposal contemplates the continuation of Richthofen Place from Oneida to Quebec Street where it would connect with the proposed park.

NORTH DENVER PARK DISTRICT
FREDERICK R. ROSS, *Ch.*
F. E. MOUNTJOY
HARRY W. HUMPHREYS
F. B. HARTMAN
A. E. UPTON
A. A. BLAKLEY

SOUTH DENVER PARK DISTRICT
ISAAC J. KEATOR, *Ch.*
WILLIAM G. SCHWEIGERT
E. W. ROBINSON
HORACE W. BENNETT
JOHN EVANS
ELMER H. PETERSON
F. J. CHAMBERLIN

EAST DENVER PARK DISTRICT
W. F. ROBINSON, *Ch.*
HORACE W. BENNETT
F. J. CHAMBERLIN
JOHN EVANS
CASS E. HERRINGTON
CHARLES A. JOHNSON
E. S. KASSLER
A. E. UPTON
CHARLES MACA. WILLCOX
I. J. KEATOR
A. A. FISHER

MONTCLAIR PARK DISTRICT
GEORGE E. CRANMER, *Ch.*
H. BROWN CANNON
CHARLES A. JOHNSON
GEORGE R. DAY
H. D. COCHRAN
ARMIN G. BARTELDES

Approved by the Executive Committee of The Denver Planning Commission:

JOHN S. FLOWER, *President.*

Approved by The Denver Planning Commission, Nov. 26, 1929.

VII. Recreation Facilities

Recreation in its broadest aspects is today recognized by the American public as a municipal function of tremendous value. This value can be demonstrated on the basis of physical, moral and economic benefits.

Less than 20 cities had recreation programs in 1906. In 1928 more than 900 cities were carrying on these activities.

In 535 of these cities the total daily attendance reported was 1,220,609 with an approximate expenditure of 7 cents a child daily.

Only 300 cities over 8,000 population in the United States did not report recreation activities.

These figures demonstrate the extent American cities are turning to public recreation. This is explicable on the facts that the playgrounds are proving themselves to be tremendous deterrents to juvenile delinquency; builders of better citizenry; a factor of great im-

portance in decreasing accidents to children, and a contributory force in the general betterment of community health and morale.

The economic value of such programs is demonstrable when one item alone is considered. The care of one delinquent costs the community approximately $600 a year. The supervised playgrounds throughout the country cost approximately $25 annually for each child served. When playgrounds are found to reduce delinquency from 50 to 90 per cent, it would seem good business for the municipality to spend its money for sound prevention rather than doubtful cure.

The experience of Chambers of Commerce in many parts of the United States has shown that enlightened industrial and manufacturing concerns are not only carrying out recreation programs of their own but are locating their plants where municipal recreation programs give their employes opportunity for relaxation and play, so that a number of cities are reaping actual dividends in increased payrolls and valuation.

So definite are these various benefits that the United States Chamber of Commerce, an organization of hard-headed and practical business men, is actively sponsoring recreation programs throughout the country.

It is hardly necessary to call attention to the child's need for play, nor to speak of the demands for recreation from all age groups. Children play, regardless of municipal efforts, and older people seek amusement where they may find it, in theaters, dance halls or similar places. The problem of the community is to create facilities for recreation which are safe and constructively beneficial, in order that children and adults will be healthier and happier, living more complete and well-rounded lives.

To a degree recreation is a new problem for our cities. It did not exist a few decades ago when the children could still play with relative safety in the streets and the adults had fewer leisure hours for recreation. The greater complexity of our present-day, machine civilization with its intensely developed urban areas has robbed the children of their space for play while it has been giving the adults more time, and as it has been necessary to accompany this change with more thorough education, it now becomes essential to provide comprehensive and systematic recreational opportunities.

In the past large areas were set aside for parks. The underlying principle of the park acquisition was that such spaces were needed for beauty spots; for making more attractive cities, and for what may be termed "passive recreation."

The crying need for open spaces for active play and recreation has made it necessary to use some of the park spaces for

this purpose and we see a change in park function. The purely ornamental park has given way to a combination of ornamental and active play space. This change has enormously increased the utility of parks. The need for play space is not overcome by the use of the parks alone, however; nor would it be wise to do away with all the meadow and forest areas to make way for active play space. The inspiring features of beautiful parks are still much needed.

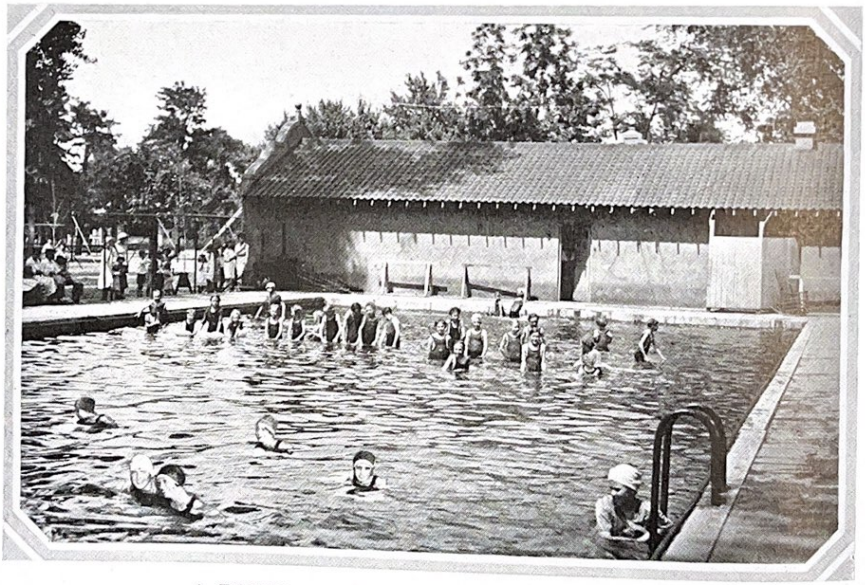
The requirements for active play space do not call for very large tracts, but rather for a considerable number of small ones. To satisfy the full needs of a community it is necessary not only to use all park spaces that are available, but also schoolgrounds and in addition to create special places dedicated to recreation.

TYPES OF RECREATION

Recreation covers a wide field. Between the lively play of a child, which is all motion, and the passive contemplation of a flower or a painting by an adult, there are many phases.

Among the active types are the play of children on swings and slides, running, dancing, group games, kite flying and the like; next come the more strenuous games of youth and early maturity such as tennis, volley ball, basket ball, football, baseball, skating, swimming, hockey, hiking, golf, horseback riding, dancing, and many others.

Under the passive types we place reading, singing, listening to poetry or drama, viewing art or nature, games like cards, chess or checkers, automobiling, and the attendance at games or contests in which others participate.



A POPULAR OUTDOOR SWIMMING POOL

Particular stress is laid here on the relation between recreation and art. Many of the passive phases of recreation point to the use of art. Music, literature, painting, sculpture and architecture are all media through which real recreation of the highest type may be obtained. It seems absolutely logical then that the artistic activities of a city should be tied into the recreational program.

Distinction must be made here between the teaching of art and the mere enjoyment of art. The effort to teach art and to produce artists is an educational endeavor that does not belong under recreation; but to let the pupils of a playground do some drawing and painting so they will better learn to enjoy art is a recreational effort. In other words, playgrounds should not become art schools, but rather should be places where in proper rooms objects of art are exhibited and artistic activities carried out. Nor should the buildings become art galleries in the broad sense.

In the major centers described in the next pages it is proposed to include in the building facilities a room for art exhibits, drama, poetry, etc. This room in some cases may be only the reading room of the branch library. It need not contain more than one painting or a piece of sculpture at a time, but the exhibit should be of real merit.

Most of the activities have a certain age to which they appeal most and for this reason this plan is designed to furnish recreational facilities for the following age groups:

(a) The small child. For this group must be provided sand boxes, swings, seesaws, slides and similar equipment and open space for play and group games.

(b) The child of the upper grades and junior high school for which must be available swings, slides, outdoor gymnastics, swimming, skating, games.

(c) The athletic group composed of high school and college students, and young men and women for which space and equipment must be available for athletics, such as baseball, football, tennis, basketball, volleyball, swimming, skating, hiking, golf and gymnastics.

(d) The mature group for which must be available facilities for horseshoes, croquet, bowling, golf, horseback riding, etc.

At the same time provision must be made for cultural activities on the part of all the groups. These activities may be divided under the four following heads:

1. Music. Mass singing, chorus, orchestra, bands, enjoyment of music.

2. Art. Enjoyment of art. Painting, sculpture, architecture.

3. Literature. Story-telling, reading, dramatics, public speaking, pageantry.

4. Handcrafts. Drawing, painting, sewing, crocheting, etc.

COMMUNITY PROVISION OF RECREATION

Recreation is furnished at the present time either by the municipality or by private companies. The work done by cities has in nearly all cases been of an upbuilding nature. This can not be said about commercialized play. Private enterprise as it has manifested itself in recreation has turned to amusement parks, movies, theatre, commercialized football and baseball and similar activities. These are, of course, promoted mainly from a standpoint of making money and not of benefiting the patrons.

Churches and similar organizations have done wonderful work in recreation and their efforts in many cases are as well or better organized than municipal work. In the growth of a city, however, a private organization may become crowded and be transferred to another location, leaving the first location without facilities, or in the development of the organization a time may come when it is not financially able to continue.

The recreational activities of a city should be in the hands of the people themselves, directed by the municipal and school authorities.

In many cases the recreational work and educational work of a community are hard to separate. For that reason the two should be intimately connected. The same intimate connection exists between recreational work and park work, and it is hoped will exist between the recreational work and art and library work of the city in time to come.

The municipality, in other words, is the logical agency to promote a complete recreational plan and it must do this through the agencies of its school board, park board, library board and art association.

SPACE FOR PLAY IN THE CITY PLAN

During 1928, the playground division of the Board of Education made an attendance study at the playgrounds, relating to the distances which children would walk from their homes to the grounds.

The total attendance at 21 playgrounds considered was 4,477. Of this number 3,181 came from a distance of less than ¼ of a mile; 682 traveled less than ½ a mile; and 614 came from a greater distance. Translated into percentages, these figures showed that 71 per cent of the children were in the ¼-mile radius; 15 per cent in the ½-mile radius; and 14 per cent outside the latter radius.

Leaving city park playground out of consideration, since no children live in the immediate vicinity, we find that three-fourths of all the children using playgrounds live within the ¼-mile radius. This forces the conclusion that for small children, playgrounds must be within easy walking distance, apparently less than ¼ of a mile away.

Theoretically, the city faces the problem of providing equally well for all children. This, then, necessitates a large number of grounds.

These areas, however, can be small. In most cases they can be established on vacant lots and there is no reason why in certain sec-

tions that are used but little should not be closed and turned into play areas.

The city has many spaces available for these small playgrounds. They can be located in parks, on schoolgrounds, and whatever city land is available.

Where special areas are to be acquired they can usually be found as vacant lots. The purchase of these tracts is not essential until the district fills up.

In the plan for undeveloped areas, Denver should insist, however, that in the new subdivisions provision is made for their playgrounds by donation or at least by selling them at the original cost of land.

The play space for every ¼-mile radius must not be thought of as a space for complete playground equipment. It is rather a place to play, a safe place as distinguished from the street.

In a circle of these small playgrounds a larger one is proposed, that will need more land and more equipment. With a main playground in every large district it is not necessary to have the other playgrounds very large.

EXISTING RECREATIONAL FACILITIES

At the present time, Denver has, within its boundaries, 44 parks, covering an area of 1,557 acres. In these parks are located 18 playgrounds, equipped for summer use only. In addition to these park playgrounds, the city has 84 schoolgrounds. Of these 64 are existing and 20 proposed.

In this inventory mention must be made of the facilities for swimming in Washington and Berkeley Lakes and for skating on the various park lakes. The municipal golf course, the horseshoe pitching courts, the zoo, the museum of natural history and the conservatory form unusual recreation units in City Park. The bowling field in Washington Park must also be classified as a thus far unusual activity.

The schools, library and art agencies are at present engaged in much cultural recreational work, with the display of pictures and sculpture, story-telling, handcraft work and other forms of "teaching through play."

In the early summer of 1928, counts were made of the number of children visiting playgrounds. The daily average number was found to be 5,223. This was less than eight per cent of the total school enrollment. It then appears the present playgrounds are not giving maximum service.

In this survey it was found that 2,554 children, or one-half of the total, were in attendance at

THE ZOO IS POPULAR

Berkeley Park, City Park, Washington Park, Lincoln Park, Globeville and Curtis playgrounds. The other half was divided over 23 playgrounds. This leads to the conclusion that children will go to playgrounds that appeal to them, either through special equipment such as swimming pools, or special programs, leadership or attractive surroundings.

The attendance for the season was 1,394 per 1,000 population. Detroit, for a 12-month period, had an attendance of 7,888 per 1,000 population, and for June, July and August, 4,509 per 1,000 population.

Of the total attendance in Denver, 58 per cent was on school playgrounds. Five playgrounds, North Side, Berkeley, City Park, Lincoln Park and Washington Park, had 48 per cent of the total attendance. The total number of instructors was 43, of whom 10 cared for the five heavily attended grounds. The Lincoln Park pool had an attendance of 18,641, which explains partly the heavy attendance on this playground.

Denver's park playgrounds at present are open only during the summer months and its school playgrounds in many cases are closed in summer. This means that the existing facilities are by no means giving the maximum returns. A twelve-month season for playgrounds is one of the recommendations of this report.

THE PROPOSED PLAN

To co-ordinate the efforts of the various public agencies now providing municipal recreation and to show a way toward systematic provision of recreation is the essence of this plan. These agencies are the school board, the park board, the library board and the art association. A place to play within the reach of every small child and an equipped playground in every district is its ultimate goal. It may not be possible to reach this goal for many years; temporary measures may be necessary to arrive at a partial success; many years may pass before its fulfillment, but every step in recreational development should be made toward this goal.

Under the plan all the mentioned public agencies should concentrate their neighborhood activities at major district recreational centers. For this purpose the city of Denver has been divided into 33 districts, each with a theoretical radius of ¾-mile, but in reality bounded by natural lines, such as railways, traffic thoroughfares, rivers, as far as possible. Each district has a completely equipped playground as its center of activities. Around this center are grouped a number of smaller play spaces that are subsidiary to the center and are controlled from it. In the creation of the districts, care has been taken that racial groups are kept to themselves as nearly as possible.

The major recreational center has been located in the part of the district wherever it was practical to do so. Many of the existing playgrounds can be used for the basis of these centers. The further equipment of them should be done on a basis of a continued increase of facilities as funds become available rather than an immediate rearrangement at great expense.

Each center must be equipped for play, sports and cultural activities. It is preferable to have all this on one tract of land, but where existing school buildings and grounds, and park facilities are separated, the center can be divided into two or more units.

The ideal center will provide the following facilities:

(a) Small children's corner, with sand boxes, swings, slides, toboggan hills, apparatus, merry-go-rounds and outdoor gymnasia.

(b) Open spaces for indoor baseball, volleyball and basketball.

(c) Wading pool.

(d) Outdoor swimming pool, also to be used for skating.

(e) Tennis courts.

(f) Baseball and football fields.

(g) Horseshoe pitching courts, handball courts, bowling field, croquet court, etc.

(h) Open lawns where story-telling can be done.

The entire layout must be carefully screened from city streets and noise. The playgrounds should have beautiful surroundings and well-arranged flower gardens.

The building equipment must include:

(a) Gymnasium for indoor play to be used by young and old at regulated intervals.

(b) Indoor swimming pool.

(c) A branch library in a separate wing.

(d) Rooms for story-telling and handwork.

(e) Rooms for art exhibits, music, reading of poetry and literature, and for dramatic activities.

The major center is to be in charge of a capable general supervisor who not only directs all activities, but also informs the people of the district as to the program that is being carried out, arousing and holding the interest of all groups.

Under the district supervisor will be assistants who not only aid in the program at the major center, but also provide traveling, part-time supervision of the auxiliary grounds. The assistants are sent out to cover the smaller grounds at regular times, supervising the play and outlining further programs.

The question of supervision of the playgrounds has been one of the most perplexing.

The provision of ground is not so difficult, since the city owns almost all the sites required, as is seen below, but the question of supervision was a trying one. As a result, the traveling supervision system was worked out. Experience may prove it is impractical and some change may be necessary, but at the present time it appears to be the most logical.

GROUND NEEDED

For the major centers no great amount of ground has to be pur-

chased. Most of them are located in parks already owned by the city, and the balance, with the exception of a new center on Capitol Hill, are located in park extensions that are needed for park use as well as playground purposes. A special playground is badly needed in the Capitol Hill apartment house section, as shown in the plan.

Of the 33 major playgrounds, 23 are located in existing parks. These are Berkeley Park, Highland Park, North Side Playground, Jefferson Park, Rude Park, Lincoln Park, Curtis Park, Globeville Playground, Elyria Playground, City Park, Alamo Placita, Washington Park, Barnum Park, Platte Park, Overland Park, Rosedale Park, University Park, Chaffee Park, Sloan's Lake Park, City Nursery, north of City Park, Montclair and Mountain View Park.

Among these, the following will be changed by acquisition of new park grounds, but can be established in the present areas: Barnum Park, Chaffee Park and Mountain View Park.

The following seven are located in proposed new parks: Capitol Hill center, Valverde, east of State Hospital, north of University Park, east of Bonnie Brae, Platte River at Third Avenue, east of Park Hill.

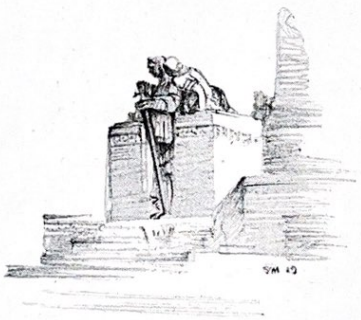
The following two are located on existing or proposed school grounds: William Smiley Junior High School and West Barnum proposed school.

One major center, south of Phipps Sanitarium, is not included in park or school plans, but will not be needed before 1950.

EQUIPMENT

It is proposed to make use of existing building equipment and facilities as much as possible. Auditoria of libraries and of schools are to be used for art exhibits and gymnasia of schools near the major centers for athletics. Where existing grounds are not sufficiently large to include athletic fields they are found on nearby school grounds.

As funds become available, special buildings should be erected at Berkeley Park, North Side center, Rude Park (place on Federal Boulevard), Lincoln Park, Curtis, Globeville center, City Park, Washington Park (use pavillion), Barnum Park (use existing building), University Park, Chaffee Park, Sloan's Lake Park, City Nursery, Capitol Hill center.



Initiation of the program should not wait on the new buildings, however.

Indoor swimming pools and gymnasia are proposed in the schools of the districts. Outdoor pools are proposed in the parks. A specially large beach, with bathouse, is proposed at Sloan's Lake. Provision for treatment of water in outdoor pools to create more sanitary conditions is recommended.

The following general locations for golf courses are recommended:

Alameda and Colorado Boulevard and Overland Park. Final locations for these courses have not been decided upon and the ground is therefore not included in the recommended acquisitions.

At present the city has 13 libraries. It is recommended that library facilities be added to the following recreational centers: North Side, Globeville, Barnum Park, University Park, Chaffee Park, Sloan's Lake Park, City Nursery, Curtis, and between 1935 and 1950 to Mountain View Park, east of Park Hill, and south of Phipps Sanitarium. For libraries immediately needed temporary use can be made of existing equipment.

AUXILIARY PLAYGROUNDS

Provision is made for 202 auxiliary playgrounds, of which 30 are on existing parks, 13 on proposed park extensions, one is on the grounds of Clayton School, 85 are on school grounds and 73 must be acquired specially. Of these last, 21 should be established in the next few years and the rest can be acquired as the districts in which they are located build up. Only in those districts where there is an immediate danger of all vacant land being built on is it necessary to make acquisitions now.

The areas of these auxiliaries can be small, but in no case should this be under 1 acre, or ¼ of a city block.

Needs of these small playgrounds are very simple. The first thing to be done is to see that all grounds now owned, where density of population indicates a need, are equipped. A systematic provision for equipment should then be carried out yearly.

At present, the 27 summer playgrounds have 43 instructors, with a total attendance of 466,156. Of these, five playgrounds with 10 instructors, have an attendance of 212,155.

Twenty of the proposed major recreational centers should be put into operation as soon as possible. Each one should have one supervisor and two instructors, one of these supervising the auxiliary grounds. This would necessitate 60 full-time instructors and supervisors.

The additional staff will not be needed until the system has been worked out and put into effect. It can be started in two or three centers and gradually expanded.

It is recommended that Berkeley Park, Rude Park and Lincoln Park be given full-time supervision in connection with the schools, and that these centers be first organized. Elyria playground has a full-time instructor now and his authority could be extended over the whole of that district.

MANAGEMENT

The completion of this program involves the authority of the Board of Education, the Commissioner of Parks, the Library Board, all of which are official arms of the municipality, and the Art Association. One representative of each of these agencies, with perhaps additional citizen members, could be formed into a commission of recreation. This commission of recreation should act as an advisory board in supervising the program and co-ordinating the various agencies.

LIST OF MAJOR CENTERS

A recapitulation of the major recreational centers, approximately in the order of their importance, follows:

1. Berkeley Park.

Present equipment—Outdoor playground, skating, beach and bathhouse, library, tennis courts, park and flower gardens.

Present instructors—Two on playgrounds and two guards at beach.

Needed equipment—Cultural building and indoor pool. For ballgrounds use Alcott schoolgrounds, for indoor gymnasium use Berkeley school.

Proposed auxiliaries—Seven, of which two are in existing parks, two in proposed parks and three on schoolgrounds.

2. Highland Park.

Present equipment—Outdoor playground, tennis courts, library, park and flower gardens.

Present instructors—One.

Needed equipment—Cultural building, outdoor swimming pool. For athletic fields, indoor gymnasium and swimming pool use North High school and Skinner Junior High school.

Proposed auxiliaries—Eight, of which five are on school grounds and three on special sites which should be acquired immediately.

3. North Side Playground (Argo).

Present equipment—Outdoor playground and ballground.

Present instructors—One.

Needed equipment—Building for library, indoor gymnasium, swimming pool and cultural rooms. For outdoor pool use Chaffee Park extension. Present area includes only one block of ground. If conditions become crowded, remove ball grounds to proposed school site at West Forty-first Avenue and Mariposa Street.

Proposed auxiliaries—Five, of which three are schoolgrounds and two are to be acquired specially.

4. Jefferson Park.

Present equipment—Outdoor playground, park and flower gardens.

Present instructors—Two.

Needed equipment—Outdoor pool. The district is small. For cultural activities and indoor gymnasium Highland Park and North High school can be used.

Proposed auxiliaries—Four, of which one is on a schoolground and three are to be acquired specially.

5. Rude Park.

Present equipment—Outdoor playground, park, ballfields and community building.

Present instructors—Two.

Needed equipment—Outdoor pool. For indoor gymnasium and cultural building use Fairview school. If new community building is

built, place it on Federal Boulevard and include swimming pool and art display room in it.

Proposed auxiliaries—Seven, of which three are in schoolgrounds, one in existing park and three to be acquired specially.

6. Lincoln Park.

Present equipment—Playgrounds, outdoor pool, tennis courts, ballgrounds, park, flower gardens, skating at Sunken Gardens and Neighborhood House.

Present instructors—Two and two guards at pool.

Needed equipment—Building for indoor gymnasium, indoor pool and small art rooms. For additional athletic fields use West High school.

Proposed auxiliaries—Five, of which all are on schoolgrounds.

7. Curtis Playground.

Present equipment—Playground, tennis courts, ballground, park.

Present instructors—Two.

Needed equipment—Outdoor and indoor swimming pools, indoor gymnasium, library and art rooms.

Proposed Auxiliaries—Nine, of which six are on schoolgrounds and three in existing parks.

8. Globeville Playground.

Present equipment—Playground, community house and library.

Present instructors—Two.

Needed equipment—Outdoor and indoor swimming pools, rooms for cultural activities in library.

Proposed auxiliaries—Three, all being on schoolgrounds.

On the acquisition of the new park at Forty-fifth Avenue and Broadway, move the play center to this park. Use school building for indoor gymnasium. This will make an auxiliary out of the present play center.

9. Elyria Playground.

Present equipment—Playground, ballground, tennis courts, indoor pool, community house and library.

Present instructors—Two.

Needed equipment—For indoor gymnasium and swimming pool, Globeville center can be used; arrange for cultural activities in the library.

Proposed Auxiliaries—Two, both on schoolgrounds.

10. City Park Playground.

Present equipment—Playground, ballground, tennis courts, zoo, museum of natural history, conservatory, skating, park and flower gardens.

Present instructors—Two.

Needed equipment—Outdoor swimming pool. For indoor gymnasium and indoor pool use East High school. Arrange for library and art rooms in the present pavilion for summer use.

Proposed auxiliaries—Ten, of which three are on school grounds, six are in City Park, one is on Clayton College grounds and one is to be acquired specially.

11. Alamo Placita.

Present equipment—Playground, tennis courts, park and gardens.

Present instructors—One.

Needed equipment—Outdoor swimming pool. For cultural activities and indoor pool, use adjoining centers; for indoor gymnasium use Byers Junior High school.

Proposed auxiliaries—Five, of which four are on schoolgrounds and one to be acquired specially.

12. Washington Park.

Present equipment—Playground, tennis courts, outdoor pool and beach, ballground at South High school, skating, park and flower gardens.

Present instructors—Two.

Needed equipment—Cultural rooms and library, for which remodeling of present refreshment building might be considered. For gymnasium use South High school. Indoor pool needed in present bathhouse or at South High.

Proposed auxiliaries—Eleven, of which five are on schoolgrounds, three in Washington Park and three to be acquired specially.

13. Barnum Park.

Present equipment—Playground.

Present instructors—Two.

Needed equipment—Extension of park to include outdoor pool and beach, building for indoor gymnasium and pool, ballgrounds, art and library rooms.

Proposed auxiliaries—Nine, of which two are in proposed park, four are on schoolgrounds and three to be acquired specially.

14. Platte Park.

Present equipment—Playground, community house, library, ballgrounds at Grant Junior High school, park and flower gardens.

Present instructors—One.

Needed equipment—Remodel community house or library for cultural activities. For indoor gymnasium use Grant Junior High school. Install outdoor swimming pool.

Proposed auxiliaries — Four, of which three are on school grounds and one to be acquired specially.

15. Overland Park.

Present equipment—Race track.

Needed equipment—Complete athletic field, including outdoor pool and

beach, ballfields, tennis courts, golf course and indoor gymnasium. Remodel existing buildings.

Proposed auxiliaries—Four, of which three are on schoolgrounds and one in proposed park extension.

16. Rosedale Park.

Present equipment—Ballgrounds and play apparatus on schoolground.

Needed equipment—Outdoor pool and beach, tennis courts, indoor gymnasium and art rooms in school building.

Proposed auxiliaries—Five, of which two are on schoolgrounds, one in existing park, one in proposed park and one to be acquired specially.

17. University Park.

Present equipment—Playground, tennis courts, park and gardens.

Needed equipment—Building for library and art display, indoor gymnasium, outdoor and indoor swimming pools. For ballgrounds use schoolgrounds.

Proposed auxiliaries—Five, of which one is on schoolground, two on proposed park extension and two to be acquired specially.

18. Sloan's Lake Park.

Present equipment—Playground, tennis courts, skating, ballgrounds at Lake Junior High school and park.

Needed equipment—Bathhouse with large beach, sailing and rowing facilities, library with rooms for cultural activities. Use Lake Junior High for indoor pool and gymnasium.

Proposed auxiliaries—Nine, of which four are on schoolgrounds, three in existing park, one on proposed park extension and one to be acquired specially.

19. Chaffee Park.

Present equipment—Playground and small park.

Needed equipment—Park extension to include lake for outdoor swimming, bathhouse and indoor pool. For indoor gymnasium and ballgrounds use Smedley school, temporarily. Eventually a special building with an indoor pool, gymnasium and library should be built.

Proposed auxiliaries—Five, of which two are on schoolgrounds and three are to be acquired specially.

20. City Nursery.

Present equipment—None.

Needed equipment—Equip this ground for complete recreational center with all facilities.

Proposed auxiliaries—Eight, of which four are on schoolgraunds, two in existing park and two to be acquired specially.

21. Capitol Hill Playground.

Site to be acquired. Equip for play use with outdoor pool. For library use Central library. For art displays use Chappel House. Use Morey Junior High school for indoor pool and gymnasium.

Proposed auxiliaries—Seven, of which five are on schoolgrounds, one in existing park and one to be acquired specially.

22. Valverde.

Site included in park extension. Will be needed in 1935 and should be fully equipped by that time.

Proposed auxiliaries—Three, of which one is on schoolground, one in existing park and one to be acquired specially.

23. Park Hill.

On site of Smiley Junior High school. Equip fully. Use Park Hill library and arrange for art displays in it.

Proposed auxiliaries—Eight, of which two are on schoolgrounds, one is in existing park and five are to be acquired specially.

24. North of City Park.

On park site. Equip fully by 1935.

Proposed auxiliaries—Five, of which one is on schoolground, one is on park ground and three are to be acquired specially.

25. Montclair.

Present equipment—Playground, tennis courts, community house, branch library, park and flower gardens. New center located in park extension near proposed school.

Needed equipment—Outdoor and indoor pools. Use community house for art display. New center needed by 1935.

Proposed auxiliaries—Seven, of which two are on schoolgrounds, two on park grounds and three to be acquired specially.

26. West Barnum.

On site of proposed West Barnum school. Equip fully by 1935. Use No. 13 for library and art display.

Proposed auxiliaries—Three, all of which must be acquired.

27. Mountain View Park.

Present equipment—Small playground and undeveloped park.

Needed equipment—Outdoor and indoor pools, gymnasium, library and art display rooms and a golf course on the park extension. Equip between 1930 and 1935.

Proposed auxiliaries—Eight, of which two are on schoolgrounds, two in proposed parks and four are to be acquired specially.

28. East of State Hospital.

On proposed school and park site. Equip fully by 1935. For library and art rooms use Center No. 27.

Proposed auxiliaries—Seven, all of which are to be acquired.

29. North of University Park.

On proposed park site. Equip fully by 1935. Use No. 17 for library and art rooms.

Proposed auxiliaries—Four, of which one is on proposed park, one is on schoolground, two are to be acquired specially.

30. East of Bonnie Brae.

On proposed park and school site. Equip fully by 1935. Use No. 12 for library and art rooms.

Proposed auxiliaries—Three, of which one is in park and two are to be acquired specially.

31. Platte River at Third Avenue.

On proposed park site. Equip fully by 1935. Use for outdoor sports mainly.

Proposed auxiliaries—Five, of which two are on schoolgrounds, one in park, one in proposed park and one to be acquired specially.

32. East of Park Hill.

On proposed park site. Equip fully by 1945.

Proposed auxiliaries—Seven, of which two are on schoolgrounds, one in proposed park and four to be acquired specially.

33. South of Phipps Sanitarium.

Equip fully by 1950.

Proposed auxiliaries—Eight, all of which will have to be acquired.

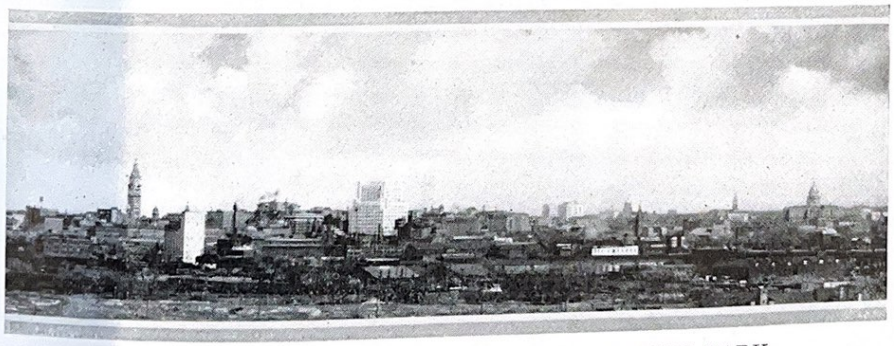
Approved by the Committee on Recreational Facilities:

CHARLES MACA. WILLCOX, *Chairman.*
H. D. COCHRAN,
E. W. ROBINSON,
A. D. LEWIS,
WILLIAM G. SCHWEIGERT.

Approved by the Executive Committee of The Denver Planning Commission:

JOHN S. FLOWER, *President.*

Approved by the Denver Planning Commission, Nov. 26, 1929.



DENVER'S SKYLINE FROM PROPOSED BARNUM PARK

VIII. Appendix

TABLE I.

Comparison of Park Acreage and Population

	1916			1926		
	Population	Park Acreage	Population Per Park Acre	Population	Park Acreage	Population Per Park Acre
Milwaukee	428,062	951.7	449.8	517,000	1.001.2	516.38
Washington	361,329	3,067.4	117.8	528,000	3,424.5	154.18
Cincinnati	406,706	2,500.0	162.7	411,000	2,718.9	151.17
New Orleans	366,484	588.0	623.27	419,000	1,737.2	242.60
Minneapolis	353,460	3,038.1	116.34	434,000	4,737.8	91.60
Kansas City	292,278	1,989.2	146.93	375.000	3,237.7	115.82
Seattle	330,834	1,445.0	228.95	315,312	2,144.6	147.02
Indianapolis	265,578	1,710.8	155.31	367,000	2,566.2	143.01
Rochester	250,747	1,603.3	156.39	321,000	1,771.9	181.21
Portland	271,814	1,117.6	243.21	282,383	2,181.4	129.45
Denver	253,161	1,277.0	198.25	285,000	1,557.4	183.00
Toledo	187,840	1,535.4	122.34	294,000	1,592.7	184.59
Providence	194,027	583.8	332.35	248,791	671.0	370.80
Columbus	209,722	279.4	750.67	285,000	634.0	449.53
Louisville	236,379	1,500.0	157.56	311,000	1,653.3	188.11
St. Paul	241,999	1,990.3	121.59	248,000	1,572.7	157.69
Oakland	194,703	338.9	500.65	261,000	915.9	285.00
Total	4,845,123	25,565.9		5,912,486	34,108.4	

RECAPITULATION

Average number people per park acre, 1916	190
Average number people per park acre, 1926	173
Average population per city, 1916	285,007.2
Average population per city, 1926	341,322.7
Average number park acres per city, 1916	1,503.9
Average number park acres per city, 1926	2,006.3
Percentage of increase in population	22.0%
Percentage of increase in park acreage	33.5%

TABLE II.

Forecast Population Densities in Denver, 1950

	Population per acre
Montclair district	4.5
Park Hill district	7.7
Capitol Hill district	66.5
Seventh Avenue district	21.2
South Denver district	15.8
Berkeley district	16.3
Barnum district	12.3

TABLE III.

Vehicular Traffic on Arterial Streets Compared with Their Capacity

Street	Location	Maximum Hourly Count Aug. 10, 1929		Existing Capacity Per Hour	Capacity Under Proposed Changes
		Peak Hour	No. of Vehicles		
Broadway	Bet. Colfax & 14th Ave.	12-1	1980	2400	3600
16th St.	Bet. Curtis & Champa	10-11	1819	1800	
14th Street	Bet. Welton & California	5-6	1872	2100	2800
14th Street	Bet. Larimer & Market	12-1	1062	1200	*
California St.	Bet. 15th & 16th Sts.	4-5	1049	2100	2800
20th Street	Bet. California & Stout	5-6	1210	2100	4200
Speer Blvd.	Bet. Broadway & Acoma	10-11	1150	1500	3000
Speer Blvd.	Bet. Curtis & Champa	8-9	2154	2250	3000**
Colfax Viaduct	West End	5-6	1503	2100	
14th St. Viaduct	South End	4-5	1517	2100	
20th St. Viaduct	South End	3-4	1456	2100	
Logan Street	So. of Speer Blvd.	5-6	1572	1500	3000
14th Avenue	Bet. B'dway & Lincoln	5-6	999	1400	2800
Colfax Ave.	Bet. B'dway & Lincoln	10-11	858	1800	2400
18th Avenue	East of Park Ave.	4-5	1273	1500	2250
Park Avenue	North of 18th Ave.	8-9	1116	1400	2800
20th Avenue	West of Park Ave.	12-1	1193	2100	
Federal Blvd.	Bet. 33d & 34th Ave.	3-4	1521	1500	3000
W. 33rd Ave.	Bet. Osage & Pecos	5-6	1277	1400	
Santa Fe Drive	Bet. 7th & 8th Ave.	12-1	900	1200	

*A possible street widening depends on the disposition of the old City Hall site.

**The proposed opening of Speer Blvd. on the south side of Cherry Creek will provide an additional 1,400 to the 3,000 on the north side.

TABLE IV.

15 Streets with Heaviest Vehicular Traffic in Ten-Hour Period

Street	Point of Count	Number of Vehicles 8 a. m.-6 p. m.
Broadway	Bet. Colfax & 14th Ave.	17841
Speer Blvd.	Bet. Logan & Grant	14421
14th Street	Bet. Welton & California	13641
Grant Street	Bet. 13th & 14th Avenue	12104
14th St. Viaduct	South End	11917
20th Avenue	Bet. Sherman & Grant	11613
20th St. Viaduct	South End	11198
Downing Street	South of 1st Avenue	10999
W. Colfax Ave.	West of Santa Fe	10944
Colfax Viaduct	West End	10650
No. Speer Blvd.	East of Federal Blvd.	10613
16th Street	Bet. Curtis & Champa	10525
Federal Blvd.	North of 33d Ave.	10084
Logan Street	North of Alameda	9588
18th Avenue	East of Park Ave.	9234
Total		175372

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Total		175372

TABLE V.

Population Densities of Cities

	Population per acre		Population per acre
New York City	29.8	Buffalo	17.2
Baltimore	28.8	Indianapolis	11.8
Newark	26.6	Minneapolis	10.4
Milwaukee	25.8	Cincinnati	8.9
Boston	24.5	Washington, D. C.	8.1
Jersey City	24.3	Portland	7.9
Pittsburgh	21.4	Kansas City	7.6
Detroit	20.5	Denver	6.7
Philadelphia	19.8	Seattle	5.4
Cleveland	19.5	Los Angeles	2.6
Chicago	19.4	New Orleans	2.1
St. Louis	19.0		

TABLE VI.

Population Densities in Denver, 1920

	Population per acre		Population per acre
Civic Center district	37.8	Columbian School dist.	7.3
Curtis Park district	35.9	Sloan's Lake District	6.8
Capitol Hill district	30.6	Argo district	5.4
Downtown district	27.9	South Denver district	5.3
Lincoln Park district	23.1	West Colfax district	5.2
Zuni Street district	20.2	Swansea district	3.2
W. Wash. Park dist.	18.1	Valverde district	2.7
Jefferson Park district	15.9	Barnum district	2.7
City Park district	11.8	E. Wash. Park dist.	2.1
West Denver district	11.2	Park Hill district	1.7
Seventh Ave. dist.	8.8	Mountain View district	.8
Berkeley Park district	7.6	Montclair district	.4

TABLE VII.

Increase of Park Acreage in Large Cities, 1916-1926

City	Percentage of Increase	City	Percentage of Increase
New York	31.8	New Orleans	193.5
Chicago	17.8	Minneapolis	23.0
Philadelphia	41.7	Kansas City, Mo.	62.7
Detroit	311.0	Indianapolis	50.0
Cleveland	2.8	Rochester	10.5
St. Louis	16.5	Portland, Ore.	95.5
Baltimore	25.0	Denver	21.9
Pittsburgh	22.0	Toledo	3.0
Los Angeles	18.2	Providence	15.2
Buffalo	63.4	Columbus	127.0
San Francisco	21.0	Louisville	10.2
Milwaukee	5.5	Oakland	136.0
Washington	16.5	Akron	174.0
Cincinnati	9.0	Atlanta	28.6