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OF

THE FIFTH NATIONAL CONFERENCE ON
CITY PLANNING
PROCEEDINGS

OF THE

FIFTH NATIONAL CONFERENCE

ON

CITY PLANNING

CHICAGO, ILLINOIS

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A CITY PLANNING PROGRAM. FREDERICK LAW OLMSTED, Chairman</td>
<td>1</td>
</tr>
<tr>
<td>Executive Committee, Brookline, Mass.</td>
<td></td>
</tr>
<tr>
<td>CITY PLANNING PROGRESS. FLAVEL SHURTLEFF, Esq., Secretary of the</td>
<td>17</td>
</tr>
<tr>
<td>Conference, Boston</td>
<td></td>
</tr>
<tr>
<td>OTHER ITEMS OF CITY PLANNING PROGRESS</td>
<td>24</td>
</tr>
<tr>
<td>CITY PLANNING IN MONTREAL. HON. ARSENE LAVALLÉ, Mayor of Montreal</td>
<td>27</td>
</tr>
<tr>
<td>THE CITY SCIENTIFIC. GEORGE B. FORD, Member American Institute</td>
<td>31</td>
</tr>
<tr>
<td>of Architects, New York City</td>
<td></td>
</tr>
<tr>
<td>A SURVEY OF THE LEGAL STATUS OF A SPECIFIC CITY IN RELATION TO</td>
<td>46</td>
</tr>
<tr>
<td>CITY PLANNING. EDWARD M. BASSETT., Esq., of the New York Bar</td>
<td></td>
</tr>
<tr>
<td>THE NEW ALBERTA, CANADA, TOWN PLANNING ACT. HON. JAMES W.</td>
<td>68</td>
</tr>
<tr>
<td>DAVIDSON, President Calgary City Planning Commission</td>
<td></td>
</tr>
<tr>
<td>THE ORGANIZATION AND FUNCTIONS OF A CITY PLANNING COMMISSION.</td>
<td>73</td>
</tr>
<tr>
<td>HON. WILLIAM A. MAGEE, Mayor of Pittsburgh</td>
<td></td>
</tr>
<tr>
<td>SOME ASPECTS OF CITY PLANNING WITH REFERENCE TO THE CHICAGO CITY</td>
<td>93</td>
</tr>
<tr>
<td>PLAN. EDWARD H. BENNETT, Architect, Chicago</td>
<td></td>
</tr>
<tr>
<td>TRANSPORTATION AND CITY PLANNING</td>
<td>105</td>
</tr>
<tr>
<td>INTRODUCTION. BION J. ARNOLD, Chicago</td>
<td></td>
</tr>
<tr>
<td>PAPER. MILO R. MALTBI, Public Service Commission, New York City</td>
<td>107</td>
</tr>
<tr>
<td>Actual Distribution of the Cost of Kansas City Parks and Boulevards</td>
<td>138</td>
</tr>
<tr>
<td>INTRODUCTION. F. L. OLMS TED</td>
<td></td>
</tr>
<tr>
<td>PAPER. GEORGE E. KESSLER, Landscape Architect, St. Louis</td>
<td>140</td>
</tr>
<tr>
<td>Discussion</td>
<td>147</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

**THE CITY PLANNING STUDY**

- Data for Proposed Study ........................................ 163
- Report of Committee ............................................. 168
- Statistical Statement ........................................... 185
- Discussion ................................................................ 189
- Detailed Comment by Committee ............................... 198
- List of Participants .............................................. 210

**REMARKS AT THE DINNER**

- HOWARD ELTING, Toastmaster. President, Chicago Association of Commerce ........................................ 215
- HON. LAWSON PURDY, President, Department of Taxes and Assessments, New York City .................. 217
- HON. CHARLES H. WACKER, President, Chicago Plan Commission .................................................. 222

**REPORT OF COMMITTEES** ........................................... 247

**PROPOSED LEGISLATION** ............................................ 248

**RESOLUTIONS** ............................................................. 261

**ORGANIZATION OF CONFERENCE** ............................... 265

**TOPICAL INDEX** .......................................................... 269
A CITY PLANNING PROGRAM

Frederick Law Olmsted
Brookline

The Executive Committee has placed upon me the duty of submitting to this Conference an outline of a city planning program, intended, with such amendments as shall be brought forth by discussion, to serve as a practical guide for local efforts in advancement of the city planning movement. Various features, forming parts of such a general program, will be taken up in detail at later sessions. I begin by assuming on the part of this Conference a general understanding of what city planning is, and a general acceptance of the desirability of having a city plan, and will take up at once the question of the method of going about it.

There are three logical divisions of any city planning movement: first, the winning of public support; second, the planning itself; and, third, the translation of plans into facts.

In every locality it is wise, and in a real democracy it is necessary, to begin by winning public support before making considerable public expenditures either in preparing plans or in executing them. And for that reason there is, perhaps, more pressing need for agreement as to the best methods of developing a wise and effective public opinion in regard to city planning than as to the steps which are made possible only by such public support. It is not to be supposed, however, because the education of the public must begin before the other steps, that it can cease when the other steps begin, or even that it can be
very far advanced without the object lessons afforded by practical accomplishments in planning and in putting plans to practical use.

The three divisions of our program are concurrent; they advance or fail together; and I believe it will give a clearer conception of the subject if we begin, not with a discussion of the first steps to be taken in arousing an indifferent public to the importance of comprehensive planning, but with a description of the conditions to which we hope our program may lead us—the sum, as it were, of all preceding steps in the program.

Let us first get before our eyes the clearest image we can of city planning as a successful going concern, fully established in the framework of municipal government, accepted and supported by public opinion as firmly as the public school system or the fire department. After thus getting a clear view of our objective, let us reconnoiter the intervening obstacles and endeavor to agree upon the most promising courses to pursue toward the goal.

Do not get the idea that I am to set before you this evening as the aim we have in view an inspiring vision of the well-planned city of the future, efficient, healthful and beautiful. Such visions must be set before those who need to be convinced that city planning is worth while, and all of us need the inspiration of such a vision at times. But, as practical idealists, what we are concerned with tonight are, first, the complex but humdrum human mechanism by which in every city such visions are to be more and more fully realized; and, second, the steps by which we hope to get this mechanism into successful operation and to keep it working.

Looking forward, say, fifty years, let us imagine the status of city planning in a fairly well-conducted American city.

There will be some official body charged with the prime responsibility for the custody, interpretation and amendment of the city plan. It is immaterial for our present
purpose to inquire whether this responsibility will be centered primarily in an individual official, in a board or commission of individuals chosen solely for that purpose, in an ex-officio board made up of the heads of certain city departments, or in some more complex organization. Whether the official head is single or multiple, there will be a staff of assistants, and we may call the body as a whole the City Plan Office.

In its function as custodian of the city plan, this office will have accumulated very extensive archives. These records will relate to the entire physical environment of the people — not merely to the visible aspect of the streets, of the public squares and parks and of the public buildings, but to the locations, grades and other essential facts about all the sewers, conduits, pipes and subways beneath the surface of the streets; all the poles and wires and other objects above the surface; all railways and other special means of public transportation; all catchment areas and waterways, from those which furnish the city water supply, and from the smallest gutters that take the first rush of storm water discharge, through reservoirs and ponds, sewers, ditches and canals, to rivers of the greatest flood capacity in the region; and, finally, to every piece of land, and every building and improvement thereon, both public and private.

Among the older documents of the office will be found certain reports and plans prepared during the first quarter of the nineteenth century by various committees and commissions, both volunteer and official. These old reports will be interesting historically as the first serious efforts toward the envisaging of the multifarious problems involved in the future physical growth and physical improvement of the city as a single complex whole, toward the collating of the most promising solutions proposed for a great many of these diverse problems, and toward the welding of these pieces of plan into a harmonious, self-consistent general scheme by a process of mutual adjustment, elimination and
supplemental planning. It is probable that many of the projects outlined in the early reports will have been carried into execution; that some will still remain upon the tablets of the city as worthy plans, not to be abandoned even though long postponed; that some will have been proven by the lapse of time to be impracticable or unwise and will therefore have been deleted from the current record of things to be provided for; and, finally, still others will be looked on as the scarce recognizable germs from which time and thought and growing knowledge will have developed strangely different schemes, already in course of execution or holding a conspicuous place in the public mind. Probably one of these early reports on the city plan—which made the strongest and most lasting popular impression—will have acquired a considerable prestige; will be frequently appealed to as giving endorsement "in principle" for all sorts of projects, good, bad and indifferent, and will be used also as a wet blanket for suppressing all sorts of new projects (also good, bad and indifferent) which did not happen to be included in it.

The printed page of these old reports and the drawings which accompanied them will have taken their place in the archives along with hundreds and thousands of later reports and drawings, dealing with all sorts of phases of the physical growth of the city: such of the ideas embodied in this mass of records as have the vitality to survive will have become constituent parts of the real city plan, either as accomplished facts or as potential facts duly regarded in making the innumerable daily decisions that comprise the bulk of municipal administration.

In a place full of progressive and active-minded people the number of ideas proposed for physical changes in the city will have been almost countless in the course of fifty years, and the number of these ideas which will have won their way to acceptance as worthy of execution is bound to be very great. Some of them, coming in conflict with ideas embodied in the earlier efforts at city planning and being
regarded as the more important, will have displaced these earlier ideas or compelled sufficient modification of them to remove the conflict.

We thus conceive a city plan as a live thing, as a growing and gradually changing aggregation of accepted ideas or projects for physical changes in the city, all consistent with each other, and each surviving, by virtue of its own inherent merit and by virtue of its harmonizing with the rest. If we adopt this conception of the city plan, it will be apparent that the archives of the City Plan Office, in its capacity as custodian of the plan, will contain an enormous mass of records of ideas which will not have survived, or will have survived only by undergoing radical modifications set forth in other and later records. The records of these superannuated and discarded ideas cannot wisely be cast aside, because many of them will have lost their place in the accepted plan by a narrow margin and are liable to be given new vitality and value by unforeseen events or maturer judgments in the future. The ideas will have been as diverse in their origin as the elements of a vigorous democracy; some put forth by volunteer committees and civic organizations, some by official plan commissions, others by private citizens, by newspapers, by politicians in search of an issue, by visiting strangers, and a steady grist will have been ground out by the departmental employees of the city in the regular performance of their duties. The forms in which they will be expressed and recorded will be as various as the graphic arts — from the most sketchy memorandum to the most fully elaborated design, set forth by means of the written and printed page, the plan and map, the picture and the model. Records of all the ideas deemed worthy of really serious consideration as parts of the city plan will be embodied in the archives of the City Plan Office, and one of its most important functions as custodian will be to maintain a system of classification, filing and indexing that will make these records useful; so that every new project coming up for approval and adop-
tion as a part of the general city plan, and every proposal for actual immediate execution, may quickly be brought into comparison with every previously accepted project with which it might conceivably be in conflict.

Logically, the first records of a City Plan Office will be surveys of the past and present conditions, topographical, social, economic and legal. It is impossible and unnecessary to make any record of the complex facts of a city absolutely complete or absolutely accurate for any given moment, and such a record begins to get out of date as soon as it is made. Therefore the City Plan Office will merely attempt to include in its survey as many of the most important facts, with as great a degree of accuracy and as nearly up to date, as the available means permit.

Improvements and changes, as they pass from the state of expectation to the state of fulfillment, will be stricken off the list of plans and appear upon the surveys. Other changes, unplanned and unexpected, will occur, and must be entered on the surveys as new facts to be reckoned with. If they disturb the harmony of the whole scheme by being inconsistent with some feature of the plans, so much the worse for the feature in question. It is the business of the City Plan Office to discover such inconsistencies and provide for their elimination, either by getting the plan altered to fit the new fact or by getting the fact altered to fit the plan.

And just as the records of projected changes will constantly be growing more fully elaborated in detail as well as growing in numbers to include new projects, so the survey record will gradually be made more and more complete and accurate at the same time that it is being kept up to date.

In its second function, as interpreter of the city plan, the Office will be charged with the duty of reporting upon every project under discussion, as to whether it is or is not harmonious with the whole aggregation of accepted and approved projects forming the general plan; and, in case
it is not, pointing out the discrepancies and suggesting how to overcome them, either by abandonment of the current project, or by altering it, or by altering the previously approved plans with which it happens to conflict.

In its third function, as amender of the city plan, its main duty will be to recognize the march of unforeseen events, whether fortunate or unfortunate; to compare the hard facts and obvious tendencies of the times with the forecasts and suppositions forming the basis of every feature of the plan, and, if clearly necessary, alter the plan to square with the new conditions. One class of hard facts to be thus recognized will doubtless be the occasional disregard of the plan by the executive authorities of the city and the consequent establishment of permanent improvements interfering with the execution of some previously approved but still dormant part of the aggregate city plan.

In any live city there are certain current projects which are really taken into account by the people who settle what happens today and tomorrow and which therefore constitute the real city plan. These projects grow and change, and if the nominal and official city plan does not, with due conservatism and deliberation, adopt and keep pace with these changes, it must soon become of no more value than the paper on which it is recorded.

The enormous importance of such a City Plan Office as we have been discussing, with its elaborate, active and obviously costly human machinery for systematically recording these live ideas which form the real city plan, for interpreting them and for deliberately amending them, lies in the fact that without such machinery these functions are performed unsystematically, intermittently and very imperfectly by people whose principal interests and duties lie in other directions. Without it the actual set of ideas and purposes concerning probable future improvements and conditions which are really kept in mind in such a way as to have practical influence upon current decisions, is
dependent upon the memory and personal equation of scores of different individuals, no one of whom has opportunities to be cognizant of the whole field or to keep in touch with all the other people. There is always some sort of a real city plan in every growing community; but the favored projects which for the time being compose it are apt to be vaguely defined, full of mutual contractions, and changeable with the changes of personnel and with the vagaries of individual memory and predilection. A strong personality, occupying for several years an influential position, such as that of mayor, or city engineer, or local party boss, or an unusually persistent and effective group of citizens interested in the subject, may by appropriate political activity keep a self-consistent set of projects to the fore long enough to give a considerable stability and unity to the purposes governing the city’s development during the period in question; but all such purely personal efforts are spasmodic in relation to the whole history of the city itself. They will always be needed as a supplementary motive power, but for continuity of effect we must look to some such flywheel as I have described the City Plan Office to be. This office supplies a mechanical and universal memory which can insure that a project once adopted shall not be abandoned through mere oversight. It will have the defects as well as the advantages connoted by the word *bureaucracy*. It is apparent that one of its duties should be to exercise a strong initiative in extending and improving the plan confided to it. It should be constantly studying the future in a manner which will disclose important contingencies that have not been adequately provided for in the projects already adopted into the city plan; and as it becomes aware of these contingencies it should take the initiative in securing plans for meeting them, calling upon the appropriate city departments to devise the proper plans in consultation with the City Plan Office, and securing the advice of outside experts when needful. I conceive that it will be in respect to this matter of exercising an active
initiative in looking ahead for trouble not actually forced upon it, that any permanent official City Plan Office will be weakest, and here chiefly that it must forever be supplemented by volunteer efforts, spurred on by the criticism of dissatisfied enthusiasts, and occasionally lifted from its accustomed moorings by a wave of popular interest in the subject that will put new men into office. Unofficial busy-bodies must be relied upon to disturb the peaceful routine of the office, and to see to it that sufficient spasmodic creative energy and imaginative power are put forth to keep the plan well ahead of the march of events.

But no amount of spasmodically applied imaginative power and sound judgment in planning will be of much avail if the resulting conclusions are not brought to bear with a monotonous regularity of routine upon all the daily and weekly municipal operations to which they are related. That is the job of "the man who does the work for which he draws the pay" — the job of the employees of the City Plan Office in collaboration with all the executive departments.

It is here that we see the third division of the subject conspicuously in progress — the translation of plans into facts. From the point of view of city planning this means primarily that things discordant with the plan shall not be permitted to happen by indirection, that every project shall be made to fit into the general plan before it can become a fact. Initiative in execution must come from outside the City Plan Office, whether originating with the executive officials, the city council or private citizens.

Here, then, we look forward fifty years, on the one hand to a well-organized staff of city employees devoted permanently and exclusively to the job of recording, indexing and interpreting the multifarious fragments of the city survey and the city plan; to the job of scrutinizing and comparing with that plan all sorts of projects arising from all sorts of sources, and of calling attention to conflicts and inconsistencies requiring adjustment; to the job of
watching for and calling attention to defects in the city plan and to contingencies for which it does not provide; and to the job of making such amendments in the plan as may be authorized by the deliberate authority in control of the office. On the other hand, we look forward to an indefinite continuance of somewhat spasmodic, unofficial activity on the part of interested private citizens and organizations directed to some or all of the following ends, with a relative intensity depending entirely on temporary and local circumstances:

(1) Inducing a proper activity in systematic far-sighted planning on the part of the appropriate administrative officers of the city, by persuasion, education, stimulation or otherwise;

(2) Getting the needful legislative authority and appropriations to permit these activities;

(3) Bringing the pressure of public opinion to bear toward either or both of the above ends by the innumerable devices for informing and arousing the public mind.

It is obvious that our program of action in this city planning movement is bound to lack the inspiring, dramatic quality of advancing in orderly succession, one complete step following another, to a definite climax of accomplishment. There is no particular place of beginning, and certainly no end in sight, for we are concerned with a continuous vital process of the social organism which we call a city. The same ground must be traversed again and again. But the line of movement is not a circle. It is a hopefully rising spiral.

So long as you are headed the right way and don’t stand still, it does n’t make much difference where you begin to push first. After you have gone a few laps around the course in any given locality, you will begin to see where the greatest resistance lies and where the available forces can be most effectively applied toward getting things moving with you.

Now, in order to give you something that will at least
look like the program I was asked to put before you, I will attempt to summarize in logical order the principal classes of work that must be done in the advancement of a city plan, disregarding for the present the manner in which that work is shared between volunteer and official bodies, and also disregarding the campaign devices by which the activity can best be brought about. Of the latter I shall say merely a few words in closing, to pave the way for the detailed discussion of these practical first steps at a later session.

A knowledge of the facts is the first requirement, and the basis for a city plan must be a city survey covering information as to four classes of fact: the first of these are the facts of the physical environment of the people of the city; second are the social facts concerning the people themselves and the reactions between them and their physical environment; third are the economic and financial facts as to the resources of the community and the possible means of bringing those resources to bear upon public improvements; and fourth are the facts as to the legal and administrative conditions which must be reckoned with in any attempt to control the physical environment.

The most important form of records as to the past and present physical environment are graphic records, mainly in the form of maps and plans. The first step is to compile the available existing records in possession of various official bodies, municipal, state and national; the most fruitful sources usually being the engineering bureau or bureaus of the city and of the county, the assessors, the registry of deeds, the U. S. Geological Survey, and the U. S. Coast and Geodetic Survey. Other important sources for such data are the public service corporations, especially the railway, electric light and telephone companies, which not infrequently prepare for their own use better maps of a city than the public officials have at their command. Insurance maps are often useful and much more closely up to date in some respects than the public records. Occa-
sionally private surveyors or map publishers as a matter of commercial enterprise have compiled maps of considerable value. In most American cities it will be found that the best of the existing maps and plans are very defective, both as to the accuracy of the general map framework (technically known as the horizontal and vertical control) and also as to the completeness and reliability of the detail. It is necessary to make the best of what there is at the start and arrange for systematically improving the records in both of these respects as fast as practicable.

The group of data roughly covered by the term Social Survey begins with the records of population, obtainable from census returns, national, state and municipal, including the distribution of the population by local subdivisions so far as shown by the records, and the changes which have taken place from period to period. Where the distribution by local subdivisions has not been systematically regarded in the general census returns of successive periods, an approximate distribution can sometimes be made by comparison with local voting lists, tax lists and school census lists; and further analysis of the population by nationality and otherwise is often very enlightening. A study of the relation of the people to their environment involves a series of special investigations. These vary in their relative importance according to local conditions, and many of them have usually been considerably advanced before any systematic grouping of the results into a City Survey is undertaken. One of the most important deals with the housing situation, a fit subject for an entire paper in itself. In regard to this the publications of the National Housing Association are most helpful. Intimately allied to this in character and importance is a survey of the physical conditions under which the principal industries of the community are pursued, dealing with the distribution and character of factories and industrial plants. Different in character technically, but closely related to the housing and industrial surveys, is a survey of the transportation
conditions. This includes not only the street railways and other local means of passenger transit, together with the passenger terminals for long distance travel, but also the freight facilities. Other special surveys relate to the social efficiency of the fixed physical equipment for water supply, for the disposal of wastes, for storm-water discharge including provision for flood dangers if any, for public recreation through parks and playgrounds and otherwise, for public education and for other municipal functions.

Every one of these lines of investigation, but especially those dealing with transportation and housing, will throw light upon the qualities and defects of the street plan, and in connection with every one of them it is important to consider what English town planners embrace under the convenient word *amenity*. Amenity embraces all those qualities in the physical environment which tend to make it pleasant and agreeable.

Some sort of economic and financial survey of a community's present and prospective resources is essential as a basis for a useful city plan, even if it does not go beyond a rough consideration of the extent and rate of possible expenditure for public improvements. But really it ought to be much more searching. It ought among other things to analyze the basis of the community's prosperity with a view to shaping the city plan toward the enhancement of its natural opportunities.

The devising and the gradual execution of any city plan must be done under complicated limitations and administrative conditions imposed by law. Some of these either cannot be or ought not to be altered and must be closely regarded, while others stand needlessly in the way of progress and call for alteration. The legal and administrative survey therefore forms the fourth essential branch of this preliminary work.

Upon the basis of as good a survey of the whole situation as the circumstances permit, the next step is to forecast the probable future growth and to define the more important
problems to be met in planning its control, and the third step is to seek out tentative solutions of these problems. Both in recognizing the existence of the problems and in devising plans for meeting them an enormous amount of work will have been done in every city in a more or less fragmentary way, and the chief function of city planning in this connection is to compile the results of this work, to search out and define important problems that have been overlooked through lack of system and to get the proper people at work devising tentative solutions for each of these problems. The fourth step is to collate and compare all the serious projects, to pass judgment upon them, and by a process of selection, elimination and mutual adjustment, to weld them into a self-consistent and sensible general plan of procedure to be put into execution as opportunity permits.

The realization of a city plan must come about through three distinct methods, each complementary to the others. Much can be accomplished through the voluntary action of individuals, inspired by the ideals of the plan and impelled by the force of public sentiment. Indeed many of the aims of city planning are attainable only if such a spirit of idealism is widely felt as a moving force in the community. The second method is compulsion, by means of the police power, a force which is of the utmost value in dealing with recalcitrant citizens, but which can under no circumstances do more than fix a minimum standard already outstripped by the ideals of the community. The third and most conspicuous method is through the expenditure of public funds raised by taxation, for the acquirement of lands and rights in land and for the construction of public improvements. Even in this hasty summary I ought to emphasize two important divisions of this third method, namely, on the one hand expenditures covered by the regular annual tax-levy, with or without the intervention of bond issues for the convenient distribution of an irregular rate of expenditure over a period of years, and on the other hand
expenditures met by transferring to the public coffers some or all of the increment in land values resulting specifically from the expenditures in question, either by means of special assessments or by means of the so-called excess condemnation method, both of which will be discussed at our coming sessions.

I have said that opportunity must control the procedure in putting a plan into execution. Even more so must it control a plan of campaign for the winning of public support at any stage in the development of the city planning movement. Like all such movements it will begin with a small group of people sufficiently interested to work for results. Upon the relations of these people to the municipal government will largely turn the question of whether the business of city planning develops from the start as a normal and integral branch of the official tree, more or less stimulated and fostered by friendly gardeners, or whether it is started as an independent growth in wholly different soil. In the latter case it must, sooner or later, be grafted on to the official tree; and although the word “graft” here may not be symbolic of corruption, the process is bound to involve serious difficulties. Since the problem is not merely to make a plan but to cultivate the habit of planning and of following a plan, the people who most need the training and enthusiasm that come with propagandist effort are the permanent officials themselves. If they can be stirred up to take a leading part in the movement, it is an immense gain. But whether the action is official or unofficial the early activities are mainly educational, and among the most effective educational devices are the preparation and publication of what may be called a study for a city plan, something which indicates what city planning means by presenting, however sketchily, all the principal aspects of a city plan, a survey of conditions, a statement of problems, a presentation of solutions and an explanation of their adjustment to each other so as to form a consistent whole.

[15]
CITY PLANNING CONFERENCE

Such a study for a city plan may be as elaborate as the great "Plan for Chicago" or it may be the first tentative leaflet of an impecunious small town committee: in every case the purpose to be kept in view in its preparation is twofold — partly to contribute to the perfecting of the plan itself and partly to produce an educative impression in the quarters where it will do the most good. The character of the study, the nature of the matter which is to be published and the manner of putting it forth must be decided partly by the available means, partly by the actual needs, of the city in respect to organized planning, and largely by a decision as to whom it is best to begin by educating and what ideas it is best to bring home to them. With clear views upon these points the problem becomes largely one of using wisely the universal channels for the transmission of ideas, the newspapers, books, pamphlets, lectures and the personal influence of man on man.

We could come to no better place than Chicago to learn how every means can best be used in a broad campaign of education in city planning. Upon this, as upon every phase of the subject over which I have traveled so hastily, we may expect real enlightenment at the coming sessions of this Conference.
I intend to enjoy the full benefit of the careful phrasing of my subject. It is described as a somewhat statistical statement. Whether the framers of the program had in mind to protect you from a too wearisome recital, or whether they recognized the difficulty of securing exactness of statistics in a report on city planning progress, is immaterial so long as you let me insist on emphasizing the word "somewhat."

About three months ago I attempted a census of city planning activity by sending a circular letter on the letter head of the Conference to the mayors and active civic organizations, including trade organizations, of every city in the United States over 10,000. The response was very general, and for the most part the inquiries were interpreted in accordance with my meaning. There was something of triumph for city planning in this, for it showed that city planning meant something to the cities in the United States above 10,000 in population. These replies form the basis of my report. Any feeling I may have had of its completeness was entirely disabused when I learned over a month after the returns were all in, that a city of 100,000 which I had not put on the city planning map was doing very effective city planning, though under a slightly different name. Ever since my coming to Chicago, only a few days ago, I have been told several new items of city planning progress. I am glad if the planning idea is spreading so rapidly that to chronicle its progress would be a weekly task, and with more assurance offer you an outline of city planning progress, which I beg you will fill in.
CITY PLANNING CONFERENCE

During the last year there has been a real advance in several fields of city planning activity. The Dallas News, the pioneer newspaper in this country to devote regularly considerable space for creating city planning sentiment, is no longer alone. The Philadelphia Public Ledger has every Tuesday two sheets, at least, of city planning news, edited by Mr. Crawford, a member of the Executive Committee of this Conference. In the administrative field the year has seen the creation of city planning commissions in four cities; in the legislative field it has seen the adoption in several States of acts calculated to facilitate planning, and, finally, there has begun an era of accomplishment of monumental plans, nowhere more notably than here in Chicago.

If the evolutionary theory were followed in city planning, first there would be talk about it, then an organization would be formed and perhaps a plan secured, and then the plan might get carried out. This is not the true story of city planning in many cities. Some have an official plan commission without any plan, and some have a plan which no longer has a sponsor, the particular spasm which brought the plan into being having died out. But I have adopted the logical order from talk to accomplishment in classifying city planning cities, starting with those cities where education has been crystallized into a definite organization.

CITIES WITH ORGANIZATIONS TO PROMOTE PLANNING

<table>
<thead>
<tr>
<th>New York</th>
<th>Dallas</th>
<th>Fall River, Mass.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston</td>
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Most recent organizations are shown in italics.
### CITIES WHICH HAVE PLANS

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### CIVIC CENTER PLANS

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Most recent plans are shown in italics.

The setting down of cities in any specific class makes apparent instantly the difficulty of tabulation. I have included in the second class only cities which have secured so-called comprehensive plans covering in more or less detail all the physical features of a city growth, and yet the comprehensive plans of some cities are not nearly as well considered as partial plans of cities which have been left in the first class. In the absence of standards classification is, at best, arbitrary and unsatisfactory.

### CITY PLANNING COMMISSIONS

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<tr>
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<td>Pittsburg</td>
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CITY PLANNING CONFERENCE

CITY PLANNING COMMISSIONS — Continued

Philadelphia 1911 Ordinance
Salem, Mass. 1911 Ordinance
Lincoln, Neb. 1911 Ordinance
Trenton, N. J. 1912 Act
Cincinnati 1913 Ordinance
Scranton, Pa. 1913 Act
Schenectady 1913 Ordinance
Paducah 1913 Ordinance

CANADIAN CITY PLANNING COMMISSIONS

Calgary Regina Saskatoon
Winnipeg Edmonton Lethbridge

The Pennsylvania and New Jersey cities may take advantage of legislation applicable to all cities of the first class in New Jersey and to cities of the second class in Pennsylvania. A later session of the Conference will bring out the wide differences between the commissions already established, as well in their organizations and functions as in their activity and effectiveness. In one or two instances plan commissions have hardly justified their existence, owing either to the circumstances of their origin or their very limited power, but during the last year most plan commissions have worked out of the experimental stage and found a very definite job, which they are attacking skillfully.

SUMMARY

CITY PLANNING CITIES IN UNITED STATES

Cities over 300,000 14 out of 16
Cities over 200,000 11 out of 12
Cities over 100,000 12 out of 21
Cities over 50,000 11 out of 57
Cities and towns below 50,000 from 30 to 40

The almost universal acceptance of the planning principle by the largest cities in the United States is significant, but it is to be regretted that the small, growing cities, which should receive most benefit from the city planning principle, have not more generally accepted it.
CITY PLANNING CONFERENCE

NOTABLE ACCOMPLISHMENT IN THE PAST YEAR

Chicago.—The legal obstacles to the carrying out of two of the chief features of the Burnham Plan have been overcome. The Commissioner's report on the Twelfth Street widening has been filed, and the condemnation of the properties is delayed only by a distressing financial situation in Chicago, which the present legislature is expected to relieve. The ordinance is prepared for the completion of the "Boulevard Link," which contemplates the widening of Michigan Avenue, north of East Randolph Street, and the public hearing for this improvement is scheduled for May 15. This project has taken more than a year and a half to perfect; its description will require 50 pages of council proceedings and 95 plans.

Philadelphia.—The acquisition of 175 parcels of property in connection with Fairmount Parkway, the diagonal which is to be cut through from the City Hall to Fairmount Park, at only ten per cent increase over the assessed valuation. This means that more than one-half the land within the lines of the proposed thoroughfare west of Logan Square is now controlled by the city, and the construction of the improvement is assured.

Boston.—The extension of Arlington Street across Boylston to the area left vacant by the abandonment of the Boston and Providence Terminal Railway, at a cost of $660,380, to which the New York, New Haven and Hartford Railway contributed $250,000. The volume of daily traffic on this extension leaves no doubt of the wisdom of the improvement. The widening of Pleasant Street, talked of for twenty years, is being done at an estimated cost of $690,565, of which $150,000 will be assessed against abutting property for the benefit resulting from the improvement. A crooked street, practically unusable as a thoroughfare, varying from 30 to 40 feet in width, will be straightened into an adequate thoroughfare of about 70 feet connecting the southern part of the city with what is
destined to be an important focal point. The region served by this street fits the description of a "blighted district" which was the subject of one of the papers at the last Conference, and yet less than 300 yards away are some of the most valuable properties in the city.

*Cleveland.* — Considerable progress toward the completion of the civic center group and mall. Two of the buildings, the Federal and County Buildings, have been completed for some time, and during the last year the foundations of the City Hall have been laid, the bonds have been authorized for the Public Library, and the legal difficulties in connection with the city's control over the proposed site for the new terminal station on the lake front have been cleared up. It is estimated that the buildings, either constructed or authorized, will cost over $15,000,000, and the land already acquired for the construction of the mall, 1,907 feet long and 570 feet wide, has cost $1,570,000.

*Denver.* — The acquisition of all the land for a civic center and completion of the park system at a cost of $2,696,600. Plans for the construction of both the civic center and park system are now being prepared.

*Des Moines.* — Only one building in its civic center remains to be constructed.

*Hamilton, O.* — The adoption of an official plan for a civic center and the carrying of a bond issue which insures the construction of two of the public buildings.

*Akron, O.* — The carrying of a bond issue which will construct the second building of its civic center.

*St. John, N. B.* — A city of 45,000. Wholesale reconstruction and modernization of the city, including the improvement of its harbors, and the construction of terminals and docks. The work now under construction will cost $36,000,000, and other work soon to be commenced will increase the total to $56,000,000.
CITY PLANNING CONFERENCE

City Planning Legislation of 1913

Administrative Measures


Increasing the power of the Philadelphia Art Jury so that its approval is necessary for the selection of sites of public buildings. Bill No. 456.

Massachusetts. — Making mandatory the establishment of local planning boards in cities and towns above 10,000 population. Chap. 494.

New Jersey. — Authorizing cities of the first class to appoint planning commissions. Chap. 72.

California. — San Francisco charter amendment No. 37 providing for the establishment of a plan commission.

Alberta, Can. — Town planning act, approved March 25, 1913.

Saskatchewan, Can. — Regulations for land subdivision, approved March 17, 1913.

Acts Concerned with Land Acquisition


Massachusetts. — Speedy trial for condemnation cases. Chap. 68.

Assessed valuation may be offered as evidence of market value in condemnation cases. Chap. 401.


Wisconsin. — Excess condemnation constitutional amendment adopted by the people.
CITY PLANNING CONFERENCE

New York. — Excess condemnation constitutional amendment ready for submission to the people.

Improvement in condemnation procedure in several States, notably Maryland, Kansas, Missouri.

OTHER ITEMS OF CITY PLANNING PROGRESS

Edward M. Bassett, Esq., New York City:

The spreading out of Greater New York by a comprehensive rapid transit plan will help to do away with the congestion in Manhattan Island. Although it is considered that the narrowness of Manhattan is responsible for skyscrapers, investigations of the Height of Buildings Commission show that only a small part of even the lower part of the island is used intensively. Land at comparatively low values can be purchased within two or three blocks of the tallest skyscrapers. No limitations have been placed on the height of business and factory buildings. New York has undoubtedly reached the time when some limit should be imposed under the exercise of the police powers of the city on the height of buildings in Greater New York, so that the use of the street and the advantages of natural light and air can be equitably divided among all the owners of land. Such a limitation would tend to spread out business centers and would probably not affect business injuriously. The Height of Buildings Commission was appointed by the Board of Estimate this spring to investigate this subject, and an appropriation of $15,000 was made for carrying on the work. It is hoped that by the 15th of October of this year a report on at least the fundamentals of this great subject will be made to the Board of Estimate, and that a beginning will be made in enforcing a legal limitation. Under the present charter of the city of New York, the Board of Aldermen is empowered to pass ordinances limiting the height of buildings subject to the approval of the Board of Estimate.

[24]
E. P. Goodrich, New York City:

Seventh Avenue is to be cut directly through old Greenwich village to the width of 100 feet, and to the length of about half a mile. This will result in a very considerable increase in real estate values and will be a great improvement from the traffic and other points of view. At the same time the south end of that thoroughfare, Varick Street, is to be widened to 100 feet.

A civic center also is now in process of creation in Manhattan, occupying a territory north of the Municipal Building, now nearly completed, and the Hall of Records. A part of this space is to be occupied by one building which will cost about ten million dollars, namely, the new court house. The project was launched last week to change the location of this court house, moving its site so as to include and make necessary the purchase of about two millions more of real estate; making available on all sides of the circular court house, or practically all sides, lands to be used eventually for other civic buildings, federal, state and municipal, so that Manhattan will have a civic center which will be unique in many characteristics.

Frank B. Williams, Esq., New York City:

There is one matter in New York City which has progressed so far that I think it should be mentioned here; and that is the contract which the city of New York is negotiating with the New York Central Railroad. As you know, the New York Central enters the city on the west side; one approach of the road goes along the bank of the Hudson River down to 60th Street, and from 60th Street on the surface through the streets of the city away down to almost the extreme end of the St. John’s Park yard. If this contract should be carried through, the tracks of the New York Central will be changed in two places in the northern part of the city, going in tunnels to preserve the water front in one case and in the other
to preserve the beautiful parks. Where the railroad goes between the Hudson River and Riverside Park, from 129th Street to 72d Street, the railroad tracks are at present exposed, and under this proposed contract will be roofed over and become a part of the park.

Andrew Wright Crawford, Esq., Philadelphia, Pa.:
The act of this year’s Pennsylvania legislature creating a Suburban Planning Commission for the area within twenty-five miles of the limits of Philadelphia gives to one board recommendatory jurisdiction over one hundred and thirty-one governmental units. Although this power is only recommendatory, the legislation establishes what seems to me to be a very important precedent.

Walter E. Kruesi, Schenectady, N. Y.:
During the last year a city plan for Schenectady has been prepared without express desire on the part of the people but as one of the policies of the administration to better the condition of the city. The plan has been submitted to the people in the form of a circular and has received the indorsement of every organization in the city that took any action whatever. Part of the bond issue for carrying out the plan will be voted on this month.

We shall begin with several radial and local parks; one in particular is a valley running right through the heart of the city, a natural parkway, which would make the worst kind of a slum if not soon redeemed for park purposes. The river front will be made a feature of civic beauty.

The plan includes some very much needed street extensions, recreation grounds and the improvement and enlargement of the school buildings, which are at present 22 per cent behind our needs. We shall have a minimum of 40 square feet of playground for each child at every school.
CITY PLANNING IN MONTREAL

HON. ARSÉNE LAVALLÉ
Mayor of Montreal

City planning is a matter which has been only recently occupying the public mind in Montreal, and, although a matter of this importance should have been dealt with years ago, we are still to determine a general lay-out for our city upon which we may labor for years to come.

Our position in Montreal is a peculiar one, and it may be interesting to give you a few facts which will prove to you that the problem of city planning in Montreal may be fraught with difficulties which, of course, will have to be overcome.

Montreal is built on an island of the same name. The island is over thirty miles long, and is in the form of a triangle, with its longest base toward the north, and the distance from this base to the southerly apex, where the old center of the city is located, is about ten miles. The total area of the island is about 150 square miles, and out of this the area now enclosed within our city limits is about forty-one square miles, not including the cities of Westmount, Maisonneuve and Outremont, which are actually surrounded by the city of Montreal and form part and parcel of the same but are not yet incorporated with the greater municipality. The population of the city, including the three municipalities just mentioned, is over 700,000, and the growth is at such a rate that we will undoubtedly have a million people in about five years more.

The beginnings of the city were in a space about a mile wide, between the River front and the base of Mount Royal.
Here, until two or three decades ago, were densely packed the industrial center, the business and shipping center, and the residential districts, all in close proximity to each other but each remaining within limits more or less sharply defined. Development at first was gradual, but in recent years has been so rapid that the city now extends about thirteen miles along the river front, and its broadest part transversely extends to the base of the island, which at this point is about eight miles, so that the city, which was formerly said to nestle snugly between the River St. Lawrence and Mount Royal, now stretches along the river front, entirely surrounds the mountain, and is rapidly extending its residence streets up to the slopes of the latter.

So great and so rapid has been this outspreading that even our most public-spirited citizens have scarcely been able to realize that it is high time that a definite and harmonious plan of extensions should be adopted. Indeed we already find that, to the east, the north and the west, mills, factories, railway freight terminals and warehouses are pushing forward indiscriminately, and becoming unpleasantly intermingled with many of our most desirable residence districts, making it difficult to design and control a proper scheme of highways, boulevards, parks, business thoroughfares, and local transportation systems.

Gradually, however, enlightened public opinion has been striving to come to the rescue, with the result that last year we obtained through the provincial legislature the establishment of a parks and highway commission, whose jurisdiction, for reasons which will be quite obvious to the members of this Association, embraces the whole of the Island of Montreal, and we are fortunate in having for Chairman of this Commission one of the foremost citizens of the Dominion of Canada.

The city is fortunate in having reserved many years ago an area of about four square miles on the top of Mount Royal, which forms a splendid natural park; besides this we have a fair number of parks, squares and breathing
spaces throughout the city. But the problems confronting the parks and highways commission are great, and very intricate. For example: the trains of seven or eight great railway systems enter the city by six main lines, with several loop-line connections, and penetrate to several separate terminals more or less scattered through the densely settled portions; this, of course, is not unusual in large commercial centers in America, but these railway lines enter from nearly all possible directions, and have their large freight yards and shops clustered about the outskirts of the city in various localities. These, and the presence of the Lachine Canal for a distance of five miles within the city, constitute an unusually serious restricting factor in planning the newer parts of the city.

In addition to this, the remaining areas are being rapidly cut up into streets, to connect with old original highways, which may have been logical enough in their general location half a century ago, but which now bear a very imperfect relation to the requirements of the community.

Further, we have a fairly extensive surface tramways system, which up to a few years ago was one of the best on the continent, but which owing to the vast change in local conditions is becoming inadequate, and will no doubt in a very few years be superseded by a system of subways or other means of rapid transit, and of course the location and extent of the main arteries of the latter will have to be very carefully determined by a tribunal having a broad outlook, and with profoundly accurate knowledge of the requirements, not only of the heart of the metropolis itself, but of the outlying districts, keeping in view a general design which will admit of the inevitable future expansion without seriously expensive alterations.

I think, under the circumstances, that the position I should assume is that of supplicant asking for information, on behalf of Montreal, as to the advisability of proceeding in this direction.

There must be some delegates here who have found them-
selves in the same situation when the question of city planning had reached the embryonic stage and where conditions were about similar to what they are in Montreal.

Of course, as they will infer from my remarks, our city in ten years has stepped into the twenty-sixth place in the world's list of great cities and the percentage of increase has, with three exceptions, been more than double that of any other city in the western hemisphere.

Montreal is a port, nay, the Port of Canada— the landing and distributing port for immigrants and freight that flow into Canada in constantly increasing streams.

Montreal is moreover the financial, commercial and industrial hub of the dominion, where, attracted by its greatness, the capital, enterprise and energies of the discerning the world over find every advantage.

For these reasons Montreal is today one of the most congested cities in the North American Continent and it has more people to the acre than even New York—a city geographically restricted and nearly eight times its size,—but the decentralization of the population is being surely but slowly effected and the huge areas surrounding the city have been more and more exploited for the wider distribution of an immense population.

Montreal is fitting itself to hold its position as Canada's greatest city, and for this reason it behooves us to look forward in order to fully determine a plan of extension, and this explains my natural request that some of the gentlemen here assembled who have had similar experiences make known to us their views in order that we may be sure that we are proceeding in the right direction.
THE CITY SCIENTIFIC

GEORGE B. FORD

New York City

Except on the aesthetic side, city planning is rapidly becoming as definite a science as pure engineering. The best plans for the development of a city can be determined upon in advance as clearly as can the plans for a bridge or for a reservoir. It is solely a matter of proceeding logically from the known to the unknown. In city planning there is, above all, the necessity for a careful analysis of the conditions. The requirements must be first definitely determined upon. Then these should be separated into several classes according to their urgency, ranging from the immediate and the imperative through the desirable to the more remotely advantageous. Working in this way, one soon discovers that in almost every case there is one, and only one, logical and convincing solution of the problems involved.

From recent experience in city planning, I am fully convinced that the sort of facts we want to hunt for and the method of bringing down our game can actually be standardized, and it is one of my minor ambitions to change this hitherto rather capricious procedure into that highly respectable thing known as an exact science.

Before elaborating my point, let me sound a note of warning, since in certain cities science in city planning has been decidedly overdone. The reaction from the "city beautiful" has swung the pendulum too far the other way, and the work has been put entirely in the charge of engineers who, while they have achieved excellent results from a scientific standpoint, have failed to appreciate the vital im-

[31]
CITY PLANNING CONFERENCE

importance of the social and æsthetic sides of the problem. In doing so they have attained results fully as unfortunate in their way as have those city planners who have approached the subject only from the standpoint of the city beautiful.

It is becoming more and more obvious that the best way to secure a city plan which will be lastingly satisfactory from all points of view and really comprehensive is to put the work in charge of several experts — one an engineer, one an architect, and one, perhaps, a social expert. It is practically a physical impossibility for one man, in one lifetime, to acquire an adequate and impartial appreciation of all these points of view. Realizing their limitations, they should be sufficiently broad-minded to seek first aid from specialists in landscape architecture, housing, recreation, transit, etc. This group of experts must work together from the start and consult continually with regard to each feature and phase of the city plan.

By such coöperation and by the standardized procedure of which I am about to give you a rough outline it is possible to determine within a comparatively short time a plan which is not only the best for to-day, but which is so elastic that any changes during the next fifty or one hundred years can be fitted into it with virtually no loss or alteration.

In emphasizing the scientific side of city planning I do not wish to administer a snub to the æsthetic side. Both phases are necessary to the complete city. The problems of convenience, of health, and of efficiency are matters of science, while the things which foster our own delight in the city and which impress the stranger within our gates come within the range of the æsthetic. The development of both should go on side by side, the practical a little in advance because it most nearly affects our life and well-being. The æsthetic, to stand the test of time, must follow the lines laid down by the practical interests of the community. Psychologically it is quite justifiable that Ameri-
CITY PLANNING CONFERENCE

can city planning began with the "city beautiful." The "city scientific" would never have aroused such enthusiasm. However, after floundering around for a number of years, we have now got our perspective and a sense of the proportion of things, and we know that considerations of health, convenience and efficiency are of fundamental importance.

In the science of city planning the whole city is our laboratory. All its facts and symptoms are more or less under observation, but the expert city planner soon sifts the significant from the less important.

Experience has shown the expert that the significant facts must be collected under the following heads:

- Streets
- Transportation of people
- Transportation of goods
- Factories and warehouses
- Food supply markets
- Water supply and sanitation
- Housing
- Recreation
- Parks, boulevards, street planting
- Architecture
- Laws
- Financing, methods of paying for improvements

All of these, of course, are capable of infinite subdivision.

Within the space allotted to this paper it is manifestly impossible to go into detail, but we will take a few typical subjects to illustrate the scientific method which applies to all.

**Street Widening and Extension**

In any given city, before we begin to gather our data, it is imperative to have clearly in mind the various types of street use. Streets are used by pedestrians, either moving along the sidewalks or crossing the roadways. The road-
ways are used by light horse-drawn vehicles, heavy horse-drawn trucks, light, swift-moving automobiles, heavy, slower-moving automobile trucks, by bicycles and push-carts — which are, in most cases, hardly important enough to count — by street cars, and, in some instances, by motor buses.

We must further determine what is the ideal street arrangement or street cross-section for each of these types under various conditions. Highway engineers are pretty well agreed upon such types. We have our units of sidewalk width of two feet per person, we have our units of roadway width of eight feet per vehicle, and we know that for so many slow-moving vehicles passing a given point in a street per hour we need so many units of width in order to prevent congestion, and that so many swift-moving vehicles demand so many units, that so many heavy trucks demand so many units, and that the varying combinations of these demand a certain definite number of units of width in the street. We know that wherever possible it is desirable to segregate the different types of traffic, and put the swift-moving automobiles on a street by themselves, and the slow heavy trucking on another street by itself and the street cars and ordinary vehicles on still a third street, but where we cannot realize this ideal the more nearly we can approximate it the better.

We are now in a position to gather our data for the particular case with some knowledge of what we are doing and why.

The first tool we need is a set of complete up-to-date surveys and maps of all existing and proposed streets together with their cross-sections and surfacing. We must have, also, contour maps, and if possible, models so that we can visualize grades.

The next tool we need is a set of historical maps of the city made at periods from ten to twenty-five years apart. These will give us a basis for determining the tendencies of growth of the city.
CITY PLANNING CONFERENCE

We should have made further maps showing the distribution of people, both as to where they live and as to where they work; also charts showing how people leave and enter the city by street cars or by trains; also how goods and freight are handled and where.

Next, after these general data it is necessary for us to know the existing use of the streets at all of the critical points in the city, both at street juncture and in the centers of important blocks. Traffic counts should be taken simultaneously by one tabulator to each item of all the different kinds of traffic passing the given point, the pedestrian traffic in each direction on each sidewalk, the light horse-drawn traffic in either direction, the heavy trucking in either direction, the swift-moving automobile traffic in either direction and the street car traffic in either direction. On corners this becomes multiplied several times, so that on important corners it has been found necessary to have as many as thirty-two men at once in order to tabulate simultaneously a correct count of the traffic passing these points. Furthermore, this tabulating should be done on various typical days under different weather and temperature conditions and also on some day of exceptional stress when the movement of large crowds taxes the street to the utmost.

The data secured at all these strategic points should be tabulated under appropriate headings and arranged for immediate comparative reference.

By comparing these figures at any given critical point with the standards and ideals as to street use, we can see at a glance whether or not this street at this point is doing its work efficiently, whether or not it is over- or underburdened. If a given street is working under capacity and a neighboring street is overtaxed, we can study means of diverting some of the traffic from the second street on to the first, either by traffic regulations or by cutting through a diverting channel. As to whether or not cutting through this diverting channel is good economy is a question which we will discuss later.

[35]
In case a given street is overtaxed and there is no parallel street through which traffic can be readily diverted, then we can study the comparative advantage of widening the existing street or of cutting through a new street to take part of the traffic. In the first place, we should bear in mind that in widening a street there is always a point beyond which a street becomes too wide to be efficient, because the two sides are so widely separated that people hesitate to cross the roadway. Then we must consider carefully the cost of widening the street, including all details, and see if the gain through avoiding congestion of traffic and the gain to business on either side of the street will warrant such widening. To be more explicit, counts should be taken with a view to determining the loss of time to pedestrians and to the various forms of traffic due to congestion and blocks caused by the narrowness of the street. This loss of time multiplied by the money value of the time of the people involved and by the time interest on the capital tied up in vehicles and their loads, will give us a definite figure. The aggregate of these figures for the year will sometimes reach amazing totals. If we then consider what capital on a five-per-cent basis this yearly waste represents, anyone can judge for himself whether or not the saving to the citizens warrants the cost of the improvement. If the cost of widening the street proves to be unwarranted, the next problem is to see whether or not the traffic can be diverted through parallel side streets, and if these are not wide enough whether or not they can be widened to good advantage. If these do not work out, then we should consider the desirability of cutting through new streets or extending existing streets in the neighborhood parallel to the congested street. The same method of testing the desirability of these solutions can be applied in each of these cases.

Every critical street corner must be analyzed to see where traffic goes, what proportion crosses and what proportion turns the corners. If a large percentage turns
a given corner, it is obvious that a cross connection between these streets would relieve that corner. The desirability and value of such a cross relief can be determined in the same scientific manner as street widening.

The same principles apply to streets in all parts of the city, and by considering each over-taxed and each under-used street in relation to others in its neighborhood it is possible to determine the one best solution for the case in hand, whether it be the widening or the extension of existing streets or the cutting through of new streets.

Of course, we must bear in mind, in any given instance, that our best laid plans may be interfered with by some political or local prejudice, and probably a certain amount of compromise will be necessary in order to get results.

Now all of this development of our plans is purely scientific, and the best way of doing it can be as well determined now as through a process of sifting over a long period of years. The aesthetic enters in only to a slight degree. In a case where slight shift in the axis of a new street or the widening of an old street on one side instead of the other would give us a vista of some impressive building, due cognizance should be taken of this provided it does not call for an unwarranted increase in the cost of the improvement and does not otherwise invalidate the practical reasons for the original solution.

The same general principles apply in the case of transit, transportation and sanitation as in the case of street widening. The same scientific investigation, analysis and deduction, and the same definiteness in determining the best solution of the problems is now possible and feasible. If cities have failed to solve these problems, it is because they have not gone at it in this scientific manner.

Housing

Housing can be roughly divided into two main divisions, i.e., improvement of housing in already built-up sections
and the providing for housing in new sections. In either case experience has developed working standards as to sanitation, lighting, air and convenience, and given us the minimum below which it is criminal to go.

The obvious first step in any given city is to make a survey of existing conditions. It is important to have maps showing the distribution of the population locating at a glance the congested districts. Other maps showing the location of each kind of habitation with the increase of that type during each of a number of previous years will determine the tendency of growth both as to direction and as to kind of dwelling. Then a number of typical blocks, including in particular some of the worst, should be investigated with an intensive survey to discover the amount, character and location of housing conditions which fall below our minimum standards.

If with regard to already built-up areas a proposed street improvement can be carried through a slum area without otherwise invalidating its usefulness, it will be of great advantage in the cleaning up of that area.

In the case of congested transit and traffic conditions in the center of the city, the determination of the best way of housing people in suburban areas and the relative distribution of such people with a view to their number per acre in any given district will have a marked influence on the relief of such congestion. Furthermore, the creation of desirable housing areas on the outskirts will tend to pull people away from the congested districts, and these would be accordingly converted into commercial districts with a corresponding effect on the desirable width of streets and sidewalks in these parts of the town.

When it comes to the planning of new areas, the whole problem can be worked out as scientifically as in the case of street widening and extension. Investigation will show just how many people can afford to spend a maximum of ten dollars a month for rent, how many fifteen dollars per month, how many twenty dollars, etc. It will show where
they work and how far they ought to live from their work for the maximum efficiency.

Investigation will also show the cost of land throughout the city and the relative desirability of different sorts of land for housing use. With these figures of cost of land, of the number of workers for a given wage and with figures as to place of work all plotted on the maps of the city, we can determine accurately what type of streets, what type of lot and block unit and what type of house should be built in a given locality in order to be best suited to the needs and means of the normal inhabitant of that locality. For example, on the highest-priced land near the factories, it is possible that tenements are the only economical solution. On land a little further away it is possible that houses in rows are the best solution. On other property the single house or the two-family house will be the best solution according to the habits and demands of the community. For each of these types of house experience has standardized the types of streets, blocks and lot units which from all points of view give the best results. In the case of the tenement it consists of many not too wide streets, running north and south, with the tenements in rows only two rooms deep, with north and south open spaces between them. In the case of the house in rows it consists of a corresponding north and south arrangement, with lots more or less on the Philadelphia type. In the case of the two-family or one-family houses it consists of an arrangement of plots from 50 to 75 feet deep and from 30 to 40 feet wide, with such variety in direction and line of streets as aesthetic social considerations may dictate. In each of these cases, however, the problem as to the width of roadways, sidewalks, grass plots, etc., must be worked out with a view both to present lot cost and to future convertibility when the character of the neighborhood may change.

The best type of plan of street block and lot units for any part of the city can, by this program, be scientifically determined, all with a view to giving the maximum advan-
tage from a housing standpoint. The whole could be done with scientific accuracy except for the variations due to the possibilities of different treatments from an aesthetic standpoint. In suburban areas, particularly in the cases of the one- and two-family houses, there is an infinite variety of artistic schemes possible, all with very little loss of efficiency in plan.

When we come to recreation, we find the problems are similar to those of housing and that they can be solved in the same definite way according to scientific methods.

**Laws and Financing**

Even the law, financing and administration have all been standardized. The Bureau of Municipal Research in New York has, from the experience of cities all over the country, worked out definite methods of handling these to secure the greatest efficiency with the minimum cost.

**Architecture**

Architecture, including landscape architecture, is a most important side of city planning. It has to do with the designing, grouping and setting of public buildings, the designing of bridges and quays and other water-front improvements, the designing and location of public monuments, such as arches, columns, obelisks, fountains, exedras, statuary, etc., and with all street and park features, such as subway and elevated stations, public comfort stations, waiting stations, advertising and other kiosks, lighting telegraph and telephone poles, lighting fixtures, fire alarm and mail boxes, hydrants, water troughs, street names, water towers and gas tanks, and all temporary street architecture for parade or pageantry use. In the same connection we should consider landscape architecture.

In each of these cases experience has become standardized to the extent of having a best arrangement for use and a most economical construction. Otherwise, in contradis-
tinction to all the previously discussed phases of city planning, architecture and landscape architecture are much more matters of taste than they are of science. In the artistic field so much depends on inspiration that the happiest solution of any given problem can never be counted on from any one designer at any given time. For that reason a competition among a limited number of the best designers is often warranted. However, before throwing these matters open to competition, all the facts should be very carefully collected, arranged and presented in a clear and definite form to the competitors. In short, in our city planning work we have not made enough distinction between these two main phases of city planning, the aesthetic and the scientific.

In conclusion I would say that a great deal of our disagreement as to the method of attack and the relative importance of the various problems in connection with city development has resulted from a failure to recognize that we were often arguing about entirely different matters or from an entirely different point of view. One man has been discussing the problem from the practical side and another from the aesthetic side. Now, it is quite feasible for us to get together and to understand each other, provided we recognize that there are these two points of view, and that each is justified in its place, and provided we can agree upon a dividing line between these two phases.

**Discussion**

**Frederick L. Olmsted:**

Mr. Ford's paper seems to convey the suggestion that aesthetic considerations should be separated from economic and social considerations. Perhaps he did not intend to convey this impression, but if he did I should like to take issue with him. I believe that beauty and the amenities of city life should not be regarded as an afterthought or as a separate proposition, but that they should be taken
into account simultaneously with the economic and social aspect of each problem.

It is perfectly true, as Mr. Ford pointed out, that in regard to some classes of problems, the influence of aesthetic considerations upon the selection of the best solution is very much less than it is in the case of other problems; in the determination of the location of rapid transit lines or of other railroad locations, or of street widths, the aesthetic considerations would have a smaller influence upon the solution of the problem in proportion to economic considerations than would be the case, say, in the determination of the material of the exterior of a city hall. But in all these problems aesthetic considerations are involved to some extent, and they should be taken into account not as a separate matter by separate people but as an integral part of the problem for what they are worth in each case; and they should be taken into account from the beginning, even in the making of the survey upon which conclusions are to be based.

JOHN NOLEN, Cambridge, Mass.:

Mr. Ford has referred to habit in housing and the desirability of taking it into account in making plans for houses, and yet I believe that the basis of that habit ought to be carefully scrutinized because I think it is true that a good deal of bad housing is simply a bad habit in housing. One of the most important changes that can be made in improving a city is to break up habits that have established themselves in meaningless ways. We should aim rather to establish new habits than to take account of old habits.

E. P. GOODRICH, New York City:

Speaking to the matter of habit in housing, I know of one instance in which a philanthropic organization endeavored to correct certain housing habits. They endeavored to move the people out of the type of housing in which they were accustomed to live, but it was an absolute failure.
The people preferred their old dwellings in spite of the education which the philanthropists and the housing experts could give them.

In speaking of congestion and the economic side of the problem, Mr. Ford stated that it would require more consideration in large cities, cities of 100,000 inhabitants; but on my way to Chicago I passed through a neighborhood of less than 10,000 inhabitants where the same difficulty was encountered in street congestion. At the four corners the same conditions prevail as in larger cities, and the same treatment should be applied there as to a larger city; in fact, the same as would be applied to New York City with its 5,000,000 people.

REV. ROBERT F. GIBSON, Williamsport, Pa.:

We have been told this morning that it would be a good plan to raise the money by private subscription from public-spirited individuals to provide for a program survey. That raised a question in my mind when I remembered the experience of at least one city that had a program survey made. After it was made the people at the polls turned it down very hard, and the impression I got was that it was because it had been done by private subscription; the people had not been taken into the confidence of the promoters of the scheme and they suspected the motives back of it. Therefore, it would strike me (not knowing anything about it, but expressing an opinion and desiring to learn) that it would be better if possible to have councils, or whatever the authorities of the city are called, to provide the money for the preliminary survey. That would imply a sufficient amount of public support.

WILLIAM BALLINGER, Keokuk, Ia.:

Our experience in Keokuk may be helpful in the matter that Mr. Gibson has just brought up.

After we had decided upon a plan we went to work to create public sentiment, first presenting the case to the
city commissioners. We felt sure that if we convinced them of the wisdom of the undertaking, others would follow in line. The city government was persuaded to appropriate $1,000 for the purpose of making the plan. We then went to our industrial association, composed of a directorate of fifteen of our best citizens. We interested them in the matter, and the Industrial Association agreed to add $2,000 to the municipal contribution. We then decided in order to make public sentiment we would appeal to the Civic Organization of the city of Keokuk, which is composed largely of ladies. With their help we organized an executive committee composed of one chairman for the whole city and a superintendent in each of the seven wards. In every block we appointed two lieutenants, one male and one female. These presented the matter of a plan to every human being in the city and in this way we not only brought it home to everybody but we invited everybody to contribute a little,—five cents, ten cents, twenty-five cents or more toward paying for the plan. In this way we hoped to have everybody feel that it was their plan.

Our ideas succeeded magnificently. There was n't any trouble at all in getting the press. We flooded the city with articles; had public meetings with good speakers. We moved the two propositions together; had a plan to talk about and used it to create public sentiment so that the plan is nearly completed and we are nearly unanimous in our city of 15,000 in favor of accepting it.

John J. Wright, Omaha, Neb.: I would like to ask you, Mr. Ford, whether you think it desirable to educate a community as to the need and benefit of city planning before you appoint your experts, or would you have your experts themselves undertake the work of educating them on these points?

George B. Ford: This question brings up the necessity of making a careful distinction between the two kinds of city planning.
CITY PLANNING CONFERENCE

surveys—first, a general program survey, and, second, detailed surveys in each of the departments of city planning.

In almost any community there are a few people who are interested enough in city planning and who have enough knowledge of it to want to try it out in their own town. Unquestionably the best way to start a city planning movement is for these few interested people to get together and to subscribe enough money for a general program survey. This need cost them a very small amount of money proportionately. It can be done in a short time, and carried out according to the method which we have used in the case of Jersey City. This will amass a great number of facts with regard to everything which affects the physical well-being of the citizens, and these facts with regard to existing conditions and possibilities of improvement will be the very best sort of material to use in a campaign to secure a city planning commission with an appropriation from the town or city funds.

Voters of a community, most of them, know nothing about city planning and will vote the necessary sums to conduct detailed surveys and carry out detailed projects only on being shown the necessity in their own individual cases.
A SURVEY OF THE LEGAL STATUS OF A SPECIFIC CITY IN RELATION TO CITY PLANNING

Edward M. Basset, Esq.

New York City

Six hundred Americans live on the Isle of Pines near Cuba and insist that their island is unattached to any other country although claimed by Cuba. If a sudden development of great opportunities called people from all directions to this land without a country and a large city should spring up, and if among the citizens were good municipal engineers, broad-visioned architects and constructive lawmakers, what a field there would be both to make a good city plan and to carry it out! City government and city construction would begin at the same time. No superior state government would supervise or interfere. The community would be as free to act in laying out and building the city as the individual settler on the distant prairie is free to lay out his home and out-buildings.

The American city lacks this freedom of action. Historically it never has been self-governing, but has developed as the creature and ward of the state. Private property and personal rights have been more sedulously guarded than community requirements. Stratum after stratum of legal checks and inhibitions has been imposed by government. The early states of our nation considered that written constitutional guarantees of private rights were absolutely necessary. State constitutions when adopted provided the framework of the state government with hardly any recognition of the existence of cities as separate entities. It was an era of written state constitutions, most
of them preceding the federal constitution. Thus every state has been built on a fundamental law, purposely made hard to change, assuring permanency to government and emphasizing private rights, but omitting even the mention of any rights or powers of urban communities. This was natural. Great cities had not appeared. The conception of municipal government where and when some small attention was given to it was that the less government there was the better. In later years great cities developed with new and unforeseen needs — great corporations whose business is to provide for the people's welfare and to do the people's work that cannot be performed by private initiative and effort. But still cities are the wards of the state. Between the strong guarantees of personal liberty on the one side and the emphasis of the constitution on state government on the other, a municipality constantly struggles for suitable instruments to work out its own salvation. The charter of every great American city resembles a news dispatch from the seat of the Balkan war; it has been censored as to its constitutionality so that it expresses only part of the requisite functions of a self-governing body. This is not said in the way of fault-finding, but rather to show the field for analysis.

The aim of this paper is (1) to outline the powers that a municipality should have to shape its growth according to community needs, for that is the realization of city planning; (2) to unfold one by one the legal wrappings that tend to retard a specified city in this regard (New York will be the example), and (3) to show how and how far such retardation can be expected to be removed.

It is hoped that, mutatis mutandis, the findings in regard to New York will be applicable to other cities.

ACQUIREMENT AND USE OF REAL ESTATE BY THE CITY

The city of New York is not empowered to buy land for unspecified purposes and sell it again to private parties on
easy terms, as is done in the city of Ulm, Germany, although, if the city was not prevented by injunction, its title when once obtained would be just as good as it is in Ulm. The city has the power to acquire land by purchase for any public purpose, can take as good title as an individual, and having so taken title can, except in the case of streets, parks, wharves and land under water, transfer the same title to private parties. More need not be said about buying land, because the city can practically never acquire by purchase all the land needed for a public improvement, and the improvement would have to be abandoned unless the city could take by condemnation under the right of eminent domain.

Accordingly, we come at once to the powers of the city to acquire land by condemnation and to sell land so acquired. The state constitution provides that private property can be taken by condemnation only for public use and upon making just compensation. It belongs to the legislature to determine how much and what interest shall be taken, but to the courts to determine whether the purpose is public or private. Where land is needed for public structures such as schools, court-houses, or for public libraries, the city can take an absolute title by condemnation, including enough land for a proper setting, and later, if it desires to sell part of the land, it can do so, imposing restrictions on its use. It would, however, be quite impossible to make a practice of excess condemnation under existing law, because no city administration would resort to subterfuge by pretending that the entire tract was for a public use, when it intended to sell part to private parties, and if, before commissioners of appraisal were appointed, the city made it known that it intended to acquire more land than was actually needed for the public use, the owners could successfully resist the condemnation. However, in building the Centre Street subway three years ago, the city acquired by condemnation many entire plots with buildings, tore down the buildings, and after constructing the subway
CITY PLANNING CONFERENCE

sold the land again, subject to the underground easement and restrictions on height of buildings, accomplishing an excellent financial outcome on most of the parcels. If the owners before the appointment of condemnation commissioners had objected to the taking of more land than the public use required, the city would probably have been prevented from taking entire plots. The point here sought to be emphasized is that the city can take by condemnation the absolute title of land for structures, and, if the owner does not early assert his constitutional rights, the city can take more land than it actually needs, and furthermore, when it once obtains title, it can sell and give a good title just as freely as an individual can.

It should be noticed that the foregoing does not apply to the taking of land for streets, parks and public places. Land that is to be taken for such purposes is required by the charter to be first shown on the official city map, and consequently the first step taken in acquiring streets, parks and public places is to alter the city map by a resolution of the Board of Estimate and Apportionment so that it will embrace such land. The city cannot sell park lands, whether acquired by purchase or condemnation, without the special permission of the legislature. The charter does not allow the city to take an absolute title to streets and public places so that it can sell again to private parties, whether abutting owners or not, because this would be a great hardship on the abutting owner. Land owners must of course submit to having streets carved out of their land, for only by so doing can land be made useful for habitation, business or industry. But if the city should obtain such a title that it could sell land within streets to other private persons for private uses, the abutting owner could be deprived of access to his property by public ways and without redress against the city. Therefore a different rule applies to the condemnation of streets and public places, and only such title may be taken by the city as will accommodate the public use, and when that public use is abandoned, the
absolute title and ownership if the city had an easement for street use will go back to the owner. If the city had what is called a fee title to the street, then after abandonment it can sell to the abutting owners and to no one else.

After the British occupation in 1664, it was customary for the various communities now constituting the city of New York to take an easement in land for street purposes. Most of the streets were never opened by condemnation, but were either the result of voluntary cession, or more often were thrown open to the public, which, followed by public acceptance evidenced by user and making of public improvements therein, was held to create an easement street by dedication. Since 1813 it has been the policy of the city of New York as it existed before consolidation, comprising what is now Manhattan and the Bronx, to take by condemnation the fee in trust for street purposes. The courts have held that this sort of title gives the city some street advantages that it does not have under the easement title. Since the creation of Greater New York on January 1, 1898, the policy of the old city in this regard has been extended to all parts of the city, although the charter still provides that either an easement or a fee in trust for street purposes may be acquired. The common law will today allow the creation of a street in Greater New York by dedication. The method commonly employed is for the private owner to file a map of his development in the county register's office, sell his lots by reference to such map, and await the acceptance of dedication by public user and city control. The city authorities are more and more loath to accept such dedications by performing acts of control, because they want to prevent the haphazard creation of streets. Consequently few new streets are now created in the city other than those placed by the Board of Estimate on the city map and thereafter acquired by cession or condemnation. This is as it should be, for the much used and abused method of dedication was responsible
CITY PLANNING CONFERENCE

for irrational street lay-outs, small lots, and many bad results of short-sightedness. The object of the developer was usually private profit and not the public benefit.

Parks are grouped with streets and public places in reference to their acquirement and title, although the city has always obtained an absolute fee title to its parks. The charter provides that when the city accepts deeds of the land within mapped streets it obtains the same title that it would obtain by condemnation proceedings. The creation of streets by cession is economical to the property owner because it prevents the expense of condemnation. Through repeated amendments to the charter any owner may now cede his land within the street to the city and escape an assessment for the value of other land taken by condemnation although not for the value of the buildings taken.

Does a modern metropolis need more powers in regard to land than the foregoing? The Board of Estimate of the city of New York cannot change the official map by locating diagonal streets or widening old streets in the built-up districts without incurring the risk, amounting almost to a certainty, that before title to the land can vest under condemnation proceedings improvements will be made that will render the cost excessive. The locating of a small park is often the signal for speculative builders to begin work so that they can make a profit when the city takes. Additions are made to old buildings that are susceptible of generous proof before the condemnation commissioners. In Flatbush, while the city authorities were preparing to open a through north and south street crossing Flatbush Avenue, a builder purposely blocked the development by erecting substantial business structures, whereupon the city discontinued its proceeding. The continuity of the street is now broken at the most vital point. In the Bronx a speculator obtained his award for a house lying within a newly opened street, whereupon he moved it to the center of another street soon to be opened, obtained another award, and so far as the law is concerned he might be doing so yet

[ 51 ]
CITY PLANNING CONFERENCE

as each successive new street is opened. While it would be an undoubted hardship to the private owner to hold his land unimproved while the city allows year after year to elapse between the mapping and the opening of a street, yet the present rule works quite as harshly against the community interests and the carrying out of any rational city planning. Some parts of Manhattan and many parts of Brooklyn are in need of street widenings and diagonal streets, and the need will grow greater as time goes on. But if the most perfect city plan in this regard were adopted today and not carried out for five years, the addition of expensive improvements would make the accomplishment excessively costly, and perhaps require an abandonment of the plan in whole or in part. What is the remedy? The courts say that the constitution requires that compensation must be made at the actual value at the time of vesting. Although the courts in the state of New York are more strict in this regard than are the courts of several other states, it is probable that if the legislature would provide, in case the city should give notice to property owners that within a reasonable time, say four years, it would vest title by condemnation, that no award for improvements made after such notice would be granted, the courts would construe such a provision in favor of the city and refuse awards for additional improvements placed on the land after such notice. If, however, the city did not vest title within four years after such notice, the owner ought to be free to obtain compensation for added improvements. The city should probably not have the privilege of giving notice after notice, because the city at all times remains free to alter its official map, and it would not be right to deprive the private owner of the free use of his property for an indefinite time without any assurance that the city would finally take the land. Such an interpretation of a state constitution, i.e., upholding refusal to pay for improvements after notice, would be consonant with justice and due observance of private
CITY PLANNING CONFERENCE

rights. A legislative enactment should be strictly con-
strued to extend no further than the intention at the time
of its adoption, because it is easy to change it to harmon-
ize with progress. But a written constitution should be
construed with a recognition of the changing needs of so-
ciety and especially the community needs of modern cities,
because, unlike a statute, a constitution should be funda-
mental, simple and enduring and is framed with an inten-
tion to cover the changing relations that progress may
develop. It would be unfortunate if our states, in order
to conform our constitutions to the needs of modern cities,
should be compelled to amend their constitutions by pages
of detailed provisions specifying what incidental benefits
may be allowed to the community in exercising the right of
eminent domain, and what latitude may be allowed in fixing
compensation. One cause of the undoubted disaffection
with the courts in their construction of state constitutions
is that they fail to recognize the changing needs of great
urban communities. The provision regarding taking pri-
ivate property and making just compensation, which is part
of the constitutions of nearly all of our states, descends
verbatim from the Bill of Rights, which is part of the
unwritten constitution of Great Britain. Parliament does
not hesitate, however, to pass many laws the carrying out
of which require taking private property for an incidental
or remote public benefit, but which our courts would prob-
ably construe as unconstitutional. The last enactment of
Parliament is the law, and the courts cannot overturn it.
On the other hand, our courts are often charged with con-
struing the constitution narrowly when in fact they would
willingly uphold incidental public advantages if the legis-
lature would provide for the exact advantage. For
instance, the courts say that the Bronx man who moves his
house into the middle of a mapped but unopened street is
entitled to his damages. But if there were a law whereby
after notice he could not obtain damages for a structure
so added to the land the courts would very likely deny his
claim. But there is no such law. If, notwithstanding the passage of comprehensive legislation, the courts should still hold that the constitution prevented a remedy, then the constitution should be amended so that improvements added within four years after notice of taking should not be paid for. This discussion and these suggestions are closely applicable to the next subject, that of excess or incidental condemnation.

The bill of rights clause in the state constitution is considered to prevent taking more land by eminent domain than that within street lines. Where diagonal streets are cut through built-up districts or existing streets are widened, the condemnation commissioners are apt to award a total loss where only part of a building is taken, and much more than half the value of a lot if half the lot is taken. The claim is usually made successfully that the part of the lot that is left is not useful for building. The result is excessive cost and, what is even worse, jagged lots and gores are left, often, to lie idle or to be temporarily utilized while the owners tire each other out in straightening the property lines. The bridge approaches and the few diagonal and widened streets that have been opened are lined with misshapen structures and values are depressed. The increment which the expensive improvement should produce is often wholly lost both to the public and to the private owners. Not only this, but the great cost, usually placed on the entire city, has taught the tax-payers to avoid such street openings until the last extremity. Probably the extravagance and damaging outcome of this method of opening streets is the greatest present obstacle to the conformation of the street lay-out to the city's growth. It marks the breakdown of the fundamental law as applied to urban development. All countries without written constitutions, and even constitutional countries of Latin America, surpass us in this respect. Their great cities take by condemnation the borders of new or widened streets, straighten the abutting property lines, then sell
or lease usually with restrictions, attracting improvements that brighten the locality and create an increment due to the improvement. This increment inures to the benefit of the city, often allowing all or part of the cost to be recouped. Under such circumstances more such streets and public places can be opened than in New York, abutting property is made bright and useful instead of jagged and depressed, and a comparatively light burden is cast on the taxpayers.

Believing that the time had arrived for the people of New York State to consider this matter seriously, progressive citizens, mostly in New York City, urged an amendment to the constitution by adding a clause to read as follows: "When private property shall be taken for public use by a municipal corporation, additional adjoining or neighboring property may be taken under conditions to be prescribed by the legislature by general law. Property thus taken shall be deemed to be taken for public use."

This proposed amendment was approved by two successive legislatures. It came before the people at the regular November election in 1911. Due largely to opposition to other amendments in the smaller towns and country districts of the state, the popular vote disapproved all the amendments. Not discouraged, an increased body of citizens again urged the approval of a new amendment to read as follows: "The legislature may authorize cities to take more land and property than is needed for actual construction in the laying out, widening, extending or relocating parks, public places, highways or streets; provided, however, that the additional land and property so authorized to be taken shall be no more than sufficient to form suitable building sites abutting on such park, public place, highway or street. After so much of the land and property has been appropriated for such park, public place, highway or street as is needed therefor, the remainder may be sold or leased." This proposed amendment was approved by the legislative session of 1912 and will prob-
ably come before the people for their approval or disapproval this fall or a year later.

The state courts have held that where the city imposes a new street lay-out on a locality that supersedes and effects an abandonment of an earlier street system, the incidental taking of private interests in land not needed for actual streets is lawful, as the whole enterprise is to accomplish a public purpose. The defeated amendment provided that the additional land should be deemed to be taken for a public use. If the taking of additional land is incidental to the public purpose, then it would seem proper for the courts to hold that additional land could be taken under the present constitutional provision. In other words, if the amendment is confined to the definition of what shall be deemed to be public use, then there is no need of amending, for it is in the power of the courts to approve all legislation that takes land for a public use, even if the taking of some of the land is incidental. On this account the new amendment is better designed to accomplish the object desired.

There is little in past court decisions to encourage the belief that if the legislature would provide for excess or incidental condemnation as applied to streets and public places, the court would approve of taking additional land for the purpose of selling or leasing in the future. But while endeavors are making to amend the constitution, the legislature should donate to the city the broadest possible power of incidental condemnation, because it is fairly likely that the court would today pass on such an act in a liberal spirit. The courts of some of the states would probably declare today that the taking of additional land and later selling it with restrictions is incidental to carrying out the street improvement and therefore can be done under the bill of rights clause. Justice Sulzberger's recent opinion upholding excess condemnation in the Fairmount Parkway case shows that the courts of Pennsylvania are continuing to broaden their interpretation of public use. How much better it would be to have the present simple
phraseology interpreted by the courts to cover both the creation of the street and the incidental taking and selling of bordering land rather than to enlarge the constitution with details and definitions! The conclusion is that progress in this respect must be made by pushing amendments to the constitution and by legislation embracing the broadest application of taking for public use.

The United States constitution has never been construed to limit what a state legislature declares to be a public use, and probably only a gross violation by a state would obtain interference from that jurisdiction. The United States constitution does not prohibit a state from making a law that takes private property for a public use without compensation, but it does prohibit a state from depriving any person of life, liberty or property without due process of law. This has been interpreted (some would say warped) to prohibit a law to prevent taking private property without compensation and has been invoked usually to prevent alleged confiscation of corporate property. The United States Supreme Court has left each state to decide what it will consider a public use and there is little chance that it will do differently in the future.

**Police Powers**

Broad exercise of community control of the use of private property is requisite. The city should have the power to impose restrictions on the use of private land so that the community's needs shall be observed. These needs extend not only to sanitation and safe building construction, but include adaptation of buildings to their surroundings, distances of buildings from and relation to streets and public places, creation of zones for industry, business or residence, and prohibition or regulation of unsightly objects. The police power is the power of safeguarding the community. This power is entirely distinct from the right of condemnation. The city by its exercise takes no
CITY PLANNING CONFERENCE

title from the private owner and makes no compensation. This distinction is well exemplified in the law governing the taking of land for the new court house which provides that the city may take by condemnation from abutting owners the right to erect or maintain any buildings except of a certain height and character, reimbursing the owners for such deprivation. The tenement house law, however, although an exercise of the police power, provides that tenements shall not exceed in height one and one-half times the width of the street on which they front, and the city makes no compensation for limiting the height. The former could not be accomplished under police powers because it is contemplated to be done for an aesthetic purpose although public, and also because all buildings similarly situated are not similarly treated. The latter case treats all tenement houses alike and has a relation to public health.

The charter allows the Board of Aldermen with the approval of the Board of Estimate and Apportionment to pass ordinances limiting the height of buildings. No such ordinances have been passed or enforced. They would doubtless be upheld so far as the courts considered them justified by regard for public health or safety, but condemned if directed to the accomplishment of a purely aesthetic purpose. The courts have chosen to limit the police powers to health and safety on the ground that a more extensive application would violate the constitution, both as to taking without compensation and without due course of law. Yet no one can doubt that the city of the future will need to enforce harmony of buildings, the setting back of buildings in certain areas, the limitation of heights, and to some extent the segregation of residential, business and industrial structures. The community cannot carry out any worthy plan if a private owner can build any shape, anywhere and for any purpose. The city architect in many foreign cities has the power to disapprove the plans of unsuitable and inharmonious buildings. Modern German cities like Cologne, Frankfort and Düsseldorf, have [58]
planned and restricted their suburbs as to height of buildings, their use, and the proportion of private land to be covered. The needs of urban communities have grown since police powers were limited to public health and safety. Police powers must be as broad as are community necessities, and the private right while protected must be exercised so as not to injure the community. It is unthinkable that the city must compensate all of the private owners if reasonable aesthetic restrictions are placed on their use of city land. Yet if police powers cannot be invoked there is no resort but to eminent domain, which always requires compensation. No city can afford to pay money to all private owners to make them respect community rights, and community rights will at some time extend to regulating advertising signs, harmonizing buildings and segregating industries. Progressive legislation is required, and if all else fails, constitutional amendments must be made. These should be general and extend police powers to reasonable aesthetic objects rather than to enumerate the various forms of community necessities.

Private contractual restrictions almost wholly fail. They are construed strictly in favor of the unhampered use of land. If unlimited as to time, they are often held to be of no effect because of change of the character of the neighborhood. They delude the unsuspecting and increase litigation. Few private mansions are now built in New York City, because there is no assurance of harmonious surroundings. Home owners more and more desert the city, and leave it to the apartment dwellers and industrial population. This is not because all Greater New York is congested. By far the greater part of the city is quite unbuilt. Mannheim, Germany, keeps its rich men inside of the city by assuring them a permanent locality of detached private residences.
Distribution of Cost of Improvements

Probably no city in the world surpasses New York in its admirable statutory system of distributing costs of improvements, coupled with reasonable safeguarding of city credit. In active practice many difficulties and shortcomings occur, but they are due rather to the method of administration than to the laws themselves. The state constitution prevents incurring debts greater than ten per cent of the assessed valuation of the real estate within the city. Five counties or boroughs now compose the greater city, but as no county extends beyond the city limits there is no separate debt limit for each county. Each of the five counties as a county is prohibited by the constitution from incurring indebtedness. Bonds sold to pay for self-supporting city-owned utilities are excluded from computation in the debt limit so long as the utility is self-supporting. This is a constant inducement to place utilities on a self-supporting basis so that the released borrowing capacity can again be employed. Bonds issued for the water supply, whether self-sustaining or not, are not included in the computation of the debt limit.

The cost of local improvements is assessed on the land benefited. The cost of improvements that partake of both local and city benefit, such as boulevards and bridge approaches, can be apportioned between the city, the borough and the local area of benefit. In practice it is difficult to apportion the cost between the city and an assessment area. It has proved impossible to satisfy property owners in the adjustment of their proportion of the assessment. If an improvement partakes in any degree of a borough or city benefit, they usually insist that the city should assume the entire expense, and advance on Albany to induce the legislature to relieve them from any burden whatever. In most cases they are successful, because the legislators are apt to succumb quickly to the importunities of interested con-
CITY PLANNING CONFERENCE

 constituents, while no one but a few city officials, whose efforts in this behalf are usually disregarded, stand against overburdening the broad back of the city. What is everybody's business is nobody's business. The people of the other boroughs never protest when one borough insists that the city treasury stand all the cost of an improvement that is largely of local benefit. It would be considered impolite.

Assessments for local improvements costing more than five per cent of the property benefited must be levied in ten annual installments. Although this method makes easy payments for property owners, experience has shown that the postponement of the lien representing the unpaid fraction gives an opportunity to sell land free and clear at a high price due to the improvement, and still leave the inexperienced purchaser to pay the remaining installments which successively become liens on his land, and which represent the very increment that he has already paid for in the purchase price. If all the installments are made a lien in the beginning but with the privilege of payment in installments, owners complain that the method is no better than making a single charge, because mortgages force the clearing off of liens, and purchasers refuse to take title unless free and clear. A single charge with a single initial lien is probably the best policy.

City-owned rapid transit lines are governed not by the city charter but by the rapid transit act, which has been evolved in the midst of constant warfare during the past ten years until it has become a remarkably perfect, although intricate law. The operator of the existing rapid transit line, usually called the interborough subway, pays to the city as rental the interest on the bonds issued by the city for construction, and one per cent per annum more for amortization. The new rapid transit lines, for the operation of which the so-called dual contracts between the two companies and the city have just been signed, will be financed in a novel manner. The city builds and owns the
lines. The city pays half the cost of construction of those to be operated by the Interborough, the Interborough paying the other half. Similarly the Brooklyn Rapid Transit pays a part less than half of the cost of the city-owned lines to be operated by it. Both companies supply their own equipment. First earnings go to pay interest on the company's investment in construction and equipment. The next payment by the company, if and when earned, is to meet the interest on the investment of the city. Then follows an annual sum (if earned) for the amortization of the investments of the company and city. The remaining profit, if any, is divided equally between the company and the city. The city can recapture the lease at any time after ten years by paying the unamortized investment of the company plus fifteen per cent. The operating contracts or leases continue for forty-nine years after operation begins. At the end of the lease or in case of recapture, the city must take the equipment at an appraised figure, but at the end of the lease it pays nothing to the company for the company's investment in construction, as the company is supposed to have amortized such expense. In the case of the new rapid transit lines the city obtains a large company investment in construction which extends the radius of the five cent fare, but it loses its first claim on earnings. The rapid transit act provides a method whereby the cost of city-owned rapid transit lines can be assessed in whole or in part on the land benefited. Many people (of whom the writer is one) consider that it would have been better to apply the assessment plan to the outlying portions of the system rather than to subordinate the city to the companies in respect to return on investment.

DISCUSSION

Prof. Ernst Freund, Chicago:

I believe that our cities are not quite so powerless as is frequently believed. The city of New York is not
typical, for New York has less power, I think, than any other city in the United States. In New York you cannot alter the plan of a single street, you cannot have a new entrance to Central Park, without having to go to Albany for an act of the legislature.

The German city is not typical because German cities have a condition of land ownership that finds no parallel in this country. Lots are owned in such small parcels that the authorities have to resort to what they call "umlegung," which amounts to compelling the owners to deed their land to the municipality in order that it may be re-allotted and made available for the new city plan. In Germany it is also permitted to require the owners of property to observe a building line, set back from the street or curb line. This has not been done by any express legislative authority, but by interpretation of the police power, which I believe would not be considered constitutional by our courts, nor do I think such extension is necessary or desirable. To compare what is done in German cities with what is done voluntarily here you will find that not a single residence district in any German city compares with the residence districts of our American cities.

German cities accomplish a great deal by being able to buy and sell land. As the largest land owner in any particular district, a city can control more effectively the character of improvements; but I am sure we should not be willing to grant to any American city the power to go into the market to buy and sell real estate for any but a public purpose. It requires the noble confidence the Germans have in their authorities, and the noble way in which the German authorities deserve that confidence that makes such a power possible and desirable.

As to eminent domain, I think we have the power for practically all necessary purposes. I heartily agree with Mr. Basset that fundamental changes in the constitution are not desirable. What we should work for is a liberal
interpretation of the constitution by our courts. In some instances we probably cannot wait for a change in judicial sentiment. For instance, in Illinois, it has been decided that you cannot compel owners to construct sidewalks. This is so serious that the law will have to be changed by constitutional amendment.

In the matter of excess condemnation, which seems so prominent in the public eye nowadays and which has been introduced into the constitution of Ohio and is now pending before the legislature of New York, I believe that we should be content with limited rights. I think that cities ought to have the power to take remnants of lots that are not of any use to the owners. That is merely carrying out in a reasonable way the power to take for public use. The Supreme Court of Massachusetts has given an opinion stating that they believe that is within the constitution. But it is a very different matter to allow authorities to take large areas not necessary for the actual improvement. It seems to me that this is simply an effort to make the improvement cheaper for the public. I wonder whether it is right to take private property for that purpose? I believe that the unearned increment ought to go sooner or later wholly or in part to the state, but that can be accomplished by the law of benefit assessments, or by taxation of the unearned increment. To allow the state to profit by the increase in value of excess land and in addition to deprive the owner of his property seems to me unjustifiable.

We have a very considerable number of powers that are not fully used. In the city of Chicago the plan for a new subdivision before it can be laid out by the owners must be submitted to the city for approval; and I think, even where such a power does not expressly exist, the city may control the character of additional subdivisions. The location of such improvements as railroad stations and public institutions which claim exemption from taxation can be largely controlled by the municipality. More neces-
sary than to give new powers to the cities is to put them in position where they can use the powers they have, and for that purpose I should favor the creation of a plan commission.

ANDREW WRIGHT CRAWFORD, Esq.: You who are not lawyers should not be bothered by the constitution. Particularly, you should not put too much confidence in the "near lawyer." I was speaking to a Philadelphian the other day, a very good friend of mine, and I said that I thought we ought to limit the height of buildings in Philadelphia by providing districts so that in one district there should be one height, and in another district there should be another height, and so on. He asked how I would limit the districts, and I replied, "By the middle of streets." He said to me: "Do you mean to say that you let A, for instance, on the south side of a street build only one hundred feet, and B, on the other side of the street, build one hundred and fifty feet?" I said, "Yes." He said: "That is unconstitutional; no court in the world, and especially in America, would stand for such a thing; that is absolute injustice; it is absolutely unconstitutional." "Well," I said, "I guess you are right, but I know sixteen men who disagree with you. Seven of these men sit as the Supreme Court of Massachusetts and the other nine compose the Supreme Court of the United States." So don't be bothered by questions of the constitution.

I know that you will think and have been persuaded that the chief object of the constitution is to hinder progress and to prevent happiness; but it really is not; it is to further happiness. I was told that the Pennsylvania excess condemnation act of 1907 was unconstitutional by every "near lawyer" I came in contact with and by some members of the bar. Well, I knew it was doubtful, but the first judge who had it to consider held it constitutional and his decision was upheld by the court in banc, the other
CITY PLANNING CONFERENCE

two judges agreeing with him; and it has now gone to the Supreme Court.

You remember the commission that went to Germany to study the employers' liability laws which had been worked out there through a period of fifteen or twenty years. They came back and put an act on the statutes of New York, and the Court of Appeals of New York wiped it right off. Those judges had not been abroad studying that particular problem, and hence they did not understand it. They needed education. But what a magnificent lot of education the judges of the Supreme Courts of other states got out of that decision of the Supreme Court of New York! So far as I know, there has not been a single Supreme Court of any other state that has not held similar acts constitutional.

If we can get over this bogey of the constitution and if we can fully realize the essentials of what we want, we can probably persuade the judges that acts to provide those essentials should be upheld as constitutional. And, if the thing is really worth doing, it is worth the two, three, or four years of effort that may be necessary to get a particular phrase of the constitution concerned changed.

ALFRED BETTMAN, Esq., Cincinnati, Ohio:

As city attorney of Cincinnati I find that I am precisely within the definition of Mr. Crawford, of those whose opinions are not worth anything. That justifies that which was my original intention, namely, not to advance an opinion, but merely to start a line of inquiry that might cause people to give me answers to certain questions that are worrying us in our part of the country.

The cities of Ohio have a new device called "Home Rule," the right to write their own charter, in fact, practically to write their own local constitutions, so that I should say Ohio is today the most fertile field for the city planner to introduce on the statute books the particular sort of laws which will enable city planning to be
CITY PLANNING CONFERENCE

carried out. I should think a propaganda, judging by the feeling that we have that we can do anything we want now, I say a propaganda for home rule for cities would be a large part of the program of the city planning conference and those particularly interested in city planning.

We have also introduced in the home rule clause of our constitution the power of excess condemnation, limited in a rather broad way, although the extent to which its limitation will reach is still to be shown, because as yet no city has exercised this power. Our constitutional provision provides that we may take land beyond the proposed improvements, which would also include streets; provided, however, that we must pay for it by means of excess condemnation bonds secured only by the land that we take and not secured to any extent upon the remainder of the property of the city. Now of course I do not presume that land taken for street purposes is going to be a very wonderful security for public bonds, so that it may prove that practically this excess condemnation power is somewhat limited.

However, I think it will prove useful, and those who think that it is a dangerous power to give in an unlimited way, will certainly be interested in watching the experiments in Ohio of the use of this excess condemnation power.

I think that to look upon the excess condemnation power as solely a means for paying for public improvements is to look upon it too narrowly; for in addition to being a means and an absolutely necessary means for paying for public improvements, I think it is also a means for carrying out city planning, for preserving the city's beauty, and for regulating the uses to which the abutting land may be put in such a way that that use will not destroy the aesthetic or other effectiveness of the street, parkway, etc. Our constitutional provision expressly states, that in the sale of land taken under the power of excess condemnation, the city may place any restrictions that it desires upon the use of the land so sold, thus recognizing that it is not
merely a device for financing public improvements, but also a device for city planning.

Now as to the atmosphere in which constitutions are interpreted, which Mr. Crawford speaks of, I am afraid that we have not yet got that in our neck of the woods. If it were attempted to limit the height of a building, it would be necessary to convince the court that the city council had nothing whatsoever in mind excepting a regard for the safety of the persons who would be on the upper floors; and the idea that aesthetic considerations were properly within the scope of public use is an idea that is still foreign to our conservative courts. I hope that we will have some of that rather free and enlightened attitude toward constitutional interpretation that they seem to have in Philadelphia. And I trust, too, that their example will be imitated in other parts of the country.

THE NEW ALBERTA, CANADA, TOWN PLANNING ACT

HON. JAMES W. DAVIDSON  
President, Calgary Plan Commission

We are fortunate in Canada not to be limited by a written constitution. During the past year our legislature gave us a city planning act. I do not know whether the public have been duly cared for, but I know that city planners have received very generous consideration. A summary of the act may prove of interest.

SECTION 1. A town planning scheme can be prepared for the whole area of any city and not by piecemeal.

1-(3) The town planning scheme may comprise land outside the city limits and the Minister may approve a part of the scheme in case he does not wish to approve all.

1-(6) Provision for notice of application to the Minister to approve the scheme.

[ 68 ]
1-(7) A town planning scheme may be varied or revoked in case future progress renders it desirable.

1-(8) This is a very small section, but it is of extreme importance. It reads as follows: "A town planning scheme when approved by the Minister shall have effect as if it were specially enacted in this Act." This means that once the scheme is approved, all future subdivisions, streets, buildings, etc., must be in accordance with the approved scheme. This is the great excellence of the Town Planning Act and prevents subdivisions from being laid out without any special regard one to the other.

Section 2. Defines who shall be the authority responsible for carrying out the town planning scheme. The authority may be, as in the case of Edmonton, the city council itself, or it may be, as in the case of Calgary, a commission appointed by the city council, subject to the approval of the Minister of Municipalities.

2-(3) Provision for regulations for carrying out the objects of the town planning scheme, which objects are set out in detail in Schedule A of the Act. No such regulations have yet been approved either in the English Act or in the Alberta Act. It will take the combined wisdom of the wisest of the combined world to make this standard set of regulations. In the meantime the plans are prepared in accordance with the various by-laws of the different cities respective buildings, sewerage, etc.

2-(4) The regulations under Schedule A may be adopted or varied or revoked. This follows the same procedure as the by-laws of a joint stock company. The law has fixed a certain set form of by-laws which a company may use in whole or in part. The idea of the town planning act is that provisions under Schedule A, when prepared, can be used in the same manner, either in whole or in part, or others substituted therefor according to local conditions.

2-(5) Provision for the raising of funds for carrying out schemes. The whole policy of our Alberta Act has been to follow as nearly as possible in this respect the
CITY PLANNING CONFERENCE

usual procedure in cities for levying and collecting taxes. Thus any moneys necessary can be borrowed by debentures the same as for any other city purpose. They can be paid back either in a lump sum or by annual installments or by means of a special local improvement tax the same as is done in pavements and sidewalks.

2-(6) Provision for certifying the by-laws as mentioned above for the purpose of sale.

2-(7) A special provision to cover the case of Calgary and other cities allowing $20,000 to be paid for preliminary plans out of the current revenue without a vote of the people. In case the scheme itself should be turned down by the people there would otherwise be no money with which to pay the person or persons preparing the scheme.

Section 3. Procedure regulations. The general object is to give full notice to all interested parties. They are now in force under the English Act and we are preparing similar ones under the Alberta Act.

Section 4. The responsible authority has powers to go ahead and carry out the scheme by removing buildings, etc.

4-(2) If the owner should do certain work and refuses, the city does it for him and the expense can be recovered by the city from the owner, such as cleaning up lots, removing unsanitary conditions, etc.

4-(3) Cases of dispute are to be referred to the Minister of Municipalities or any special commission he may appoint to help carry out the scheme.

Section 5. Compensation. Any person whose property is injuriously affected by the scheme shall be entitled to full compensation, if he files his claim with reasonable promptness. A man cannot wait for years to file his claim.

5-(3) If lands are increased in value by the town planning scheme the owner gets one-half of the increase and the city the other half. This is taking the unearned increment in accordance with the English theories of land taxation. It is a very radical provision. One beneficial fact
CITY PLANNING CONFERENCE

is that local jealousies are forgotten because the rate-payers know that, although the scheme benefits only part of the locality, nevertheless half the benefit is reaped by the city at large, and that those who most directly profit by the improvement are liable to a charge against their property accordingly.

5-(5) This half of the increased value, if not recovered in the ordinary method of taxation or by sale of the lands, may be recovered as an additional remedy by a lawsuit in court. This is the usual provision in all tax measures.

Section 6. Exclusion of compensation where the parties would not be entitled to compensation under local by-laws of any particular city.

6-(2) The number of buildings on a given area can be limited; the space about buildings, the character and height of buildings may be prescribed; a reservation of vacant land for parks and open spaces in all new subdivisions up to five per cent of their area may be made; all without giving the landowner claim for compensation.

Section 7-(2) In cases of expropriation the city takes at the value existing before the town planning scheme came into effect. This prevents owners from holding up the city for fictitious values. In the case of a private person who wished to erect a valuable building, etc., he would take an option before the landowner knew what was going on and would thus get it at its current market price. On account of the very great publicity attached to all city enterprises, options cannot be taken in this manner. This section provides, however, that the city can purchase at the original value. This is a similar provision to that in the Railway Acts.

Section 8. The Minister may force any backward city to make or to execute a town planning scheme. This likewise is a radical provision and will only be exercised upon the representations of a responsible body of citizens.

Section 9. Payment of any board or commission the Minister may appoint to carry out the Act.
Differences between the Alberta Town Planning Act and the English Town Planning Act:

First, the authority to approve the scheme in Alberta is given to one Minister, whereas the English Act gives power to a local government board.

Second, if in preparing a town planning scheme under our Alberta Act it is found that some Acts of Parliament are not in accordance with sound town planning doctrines, the Lieutenant-governor and Council, which means the Cabinet Ministers, can change these acts without calling Parliament together. Under the English system this can only be done by an Act of the British Parliament, providing any person at all raises any objection to the changes.

This gives an exceptionally wide power to the Lieutenant-governor and Council and one which might be abused except that the regulations provide for so much publicity that abuse is not liable to occur either designedly or by accident.

Third, provision is made in our Alberta Act for five per cent parks, that is, that five per cent of all subdivisions must be left for park purposes as a gift to the public. The theory is that the owner has no more right to lay out land without parks for the health of the children than they have to lay them out without streets or alleys. The person subdividing is fully compensated by the increased value to the land immediately adjoining what is known will be public park.

Fourth, difficulty is often realized in selling debentures on account of technical errors; the Alberta Act provides that the Minister of Municipalities may certify that the debenture by-laws are correct, and then no court can question the correctness of such debentures. This will make it much easier to sell town planning bonds.
THE ORGANIZATION AND FUNCTIONS OF A CITY PLANNING COMMISSION

Hon. William A. Magee

Mayor of Pittsburgh

Now that the first enthusiasm for city planning has had its full expression, its advocates might well call a brief halt for the purpose of taking stock of its preliminary achievements. Aside from a comparatively few notable feats accomplished under exceptional leadership and favorable circumstances, even the more sanguine must admit that a survey of its progress justifies a further analysis of the subject looking towards a restatement of the practical problems which our new art assumes to regulate.

A fertile field for inquiry is that embraced within the theme assigned for this discussion, namely, administration. This phase of the subject — the practical side of it, the doing of the things desired — is of course the hard part of this as of everything else worth while doing. The principles involved have been so fully and ably presented as to assure us that we are dealing with a real science. It is not on the side of theory, nor is it lack of executive ability on the part of its professors, that one should seek for an explanation of the note of hesitation which it seems can be detected. We should rather look to such things as the uncertainty of its position among the correlated public activities, the complexity of governmental jurisdiction, the restrictions upon the use of the public credit, the limitations upon legal powers, the tendency towards immediate fragmentary results.

Perhaps the chiefest handicap to a city planning commission in its early days is its undeveloped relation to the
other forces engaged in the management of the public business. Before this new instrument of government can get the necessary lodgment to permit it to do real work, it must be properly introduced to many functionaries long established. Besides the city officials with their powers well defined by statute, ordinance and custom, there are the public service corporations solidly intrenched behind their legal rights as well as those important adjuncts to civic advance, the many organizations composed of public-spirited citizens devoted to particular reforms and improvements. All of these conventional agencies for the performance of the tasks of the community are bound to look more or less askance at the stranger until well acquainted, until they learn that the new body has no intention of infringing upon their boundaries, until indeed the professors of the new art have so thoroughly examined their domain and discovered its limitations as actually not to stray beyond their own jurisdiction and trespass upon others.

Not to enumerate, but to illustrate, mention might be made of some of the subjects within the purview of city planning. The avenues of communication must be improved by the widening and extension of existing highways, by the opening of new thoroughfares, by the location of more bridges and viaducts, by the construction of tunnels and subways and by the separation of grade crossings. The water supply must be extended; sewage better collected and more scientifically disposed of; the city refuse more completely collected and destroyed; public buildings and perhaps a civic center must be constructed. The city needs a building code, a health code and a topographic survey. The public schools and markets, the police and fire stations must be located and relocated with reference to their subject matter, and in fact all the agencies of the city administration so distributed and grouped as to permit their operation with a minimum of cost and maximum of service. It has always been assumed that complete jurisd-

[74]
diction over these several matters in all their phases has been assigned to the various divisions of the government, and this may theoretically be true. It is a fact that their financing lies wholly in the legislative authority of the city and their construction in the executive department, and that as a consequence the location and design of public works get their initiative from the latter but are subject to the veto of the former. But the responsibility for their economic and efficient coördination, for the adjustment of their relation to each other as well as to all other physical features of the city or rather the community with reference to both the near and remote future, is not practically assumed by either department except in a nominal sense, although, abstractly speaking, it undoubtedly rests upon both. This failure to respond to what seems a duty is easily explained. The administration absorbed in routine simply lacks time and cannot gain perspective; the councilmen or aldermen lack the necessary organization. Lifted out of the atmosphere of daily business, having their minds directed to future rather than immediate results, to the problem as a whole and to its integral parts but not their details, our commission can supply that peculiar angle of vision heretofore lacking in the administration forces and give that full consideration made possible by a broad, thorough study of facts and principles of which the legislative officers are incapable.

Similar and even more difficult aspects of the problem present themselves in the consideration of the relations of our commission with the great public service corporations. The process of change and improvement is before them constantly as it is with the public authorities. The passenger railways must be extended and the service improved; rapid transit introduced; the facilities for freight transportation increased, and the cost of the same reduced by the competition that will result from the extension of additional trunk lines to the city; the terminals of all kinds of transportation agencies whether by rail or by water
CITY PLANNING CONFERENCE

must be enlarged and bettered; water supply companies must be consolidated; buildings erected and wires buried. If these developments are not in harmony with all other physical reforms, the city plan will be considerably marred. These utilities, thoroughly lodged behind the liberal contracts existing between them and their creators, the state and the city, are little inclined to submit their plans or to heed suggestions from an outside body. They are engaged in business for profit, and most other considerations are subordinated thereto in the minds of their managers. This is a legitimate viewpoint which the public cannot seriously criticise, but as they have already yielded to many regulations imposed upon them for the public welfare, so they can be induced to submit to this new conception of local government embraced in the ideals of city planning.

Let us turn now to such subjects as playgrounds and recreation centers, bath houses, libraries, industrial and model dwelling sites and buildings, city ornamentation and so forth. Whatever progress any locality has made in this widened field of communal activity is due to that new class of social forces which embraces what we call civic improvement associations and the like. These pioneers are rapidly leading the way to a vast extension of municipal policy. In the spirit of public philanthropy or other sentiment they are able to construct and even maintain useful and ornamental public works as object lessons to the less progressive part of the community. In the same spirit or through enlightened self-interest these bodies sometimes finance technical investigations to accelerate public endorsement and official action of praiseworthy improvements. They are the educators of public opinion and form a most efficient force ready made to aid in constructive planning in many directions. But, like the public officer and the corporate manager, they are tenacious of their ground. They will brook no rivals in their chosen field and will not yield to supervision except when accompanied by substantial aid.

[ 76 ]
As we have so many conflicting and balancing forces in the municipality that may encumber the city planner, so he is embarrassed by a territorial division of powers. Beginning with our sovereign state, we have the county as well as our suburban relatives, boroughs, villages, towns and townships, their burgesses, councilmen and supervisors. They and our county commissioners and judges all directly and indirectly have a part to play. Without the aid of all of them to a greater or less degree the destiny of the community of the future may not be planned. The entire area both within and without the corporate limits must be planned as a whole regardless of the number of governmental units now contained within it. Sooner or later, either through annexation and consolidation or else through the medium of a metropolitan district, there will be essentially a unified government. In the meantime thoroughfares must be connected, transportation extended and improved, wasteful duplications in water supply and sewage discharge reduced for the alleviation of present conditions and to avoid as far as possible the expense of correction against the day when the single government will arrive.

Only by the cordial cooperation of the officers of these independent jurisdictions can any present progress be accomplished. It is one of the tasks of city planning, and indeed a hard one, to supply the intelligent leadership required in this behalf.

Another suggestion of hindrances to city planning has reference to the timorous taxpayer, the lethargic citizen set in his conservatism, the poor economists sent to the general assembly and elevated to the bench. Many city planners are confronted with a maximum of five or seven per cent of public indebtedness or a ten mill tax rate; some of them are without statutes permitting the formation of betterment districts, without legislation that will spread special benefit assessments over the whole area beneficially affected by street and sewer construction, by parks, bridges or other local improvements; few recognize the principle of excess
condemnation and none of them realize the possibilities of the self-supporting publicly owned utility even in a limited way. Many of them allow their solemn enactments of this kind of policy to be nullified by judicial construction. The prevailing ideas upon public finance must be overcome. If the penny-wise pound-foolish policy with respect to taxation continues and if the great improvements are not to carry their own cost, naturally the city planner may as well conserve his energies for some more inviting field of action.

City planning must have still more aid from enabling legislation if it is not to be thwarted in its purpose. No state has devised a practical scheme for gradual street widening; but one state permits street location against the will of the landowner; few dare to regulate the height of buildings. The poverty of city planning in its present stage of development is nowhere so well exemplified as by the absence of laws providing for the administration of purely community questions upon the basis of the metropolitan district. Here we are running into the larger, general subject of city planning rather than its administration, and, besides, lack of space forbids more extended comment, except that attention should be called to the fact that on this matter of larger powers city planning must deal with still another set of public officers who have it within their power to help or injure our object, namely, the representatives of the district in the state legislature.

Our planning commission should not be carried away with the execution of some one or two striking public works to the exclusion of the consideration of planning the whole situation. The temporary popularity accruing will be dearly bought. We must keep in mind the definition of city planning, or if it has not been defined we must formulate at least a fair description of it. If our aim is only a reformed street lay-out, or the construction of a subway, or a civic center, or city beautification, or the municipal ownership of a street railway, or improved terminal facilities, or a complete recreation and social center scheme, or
any one of the many other improvements which the city needs, the ground is already probably covered by some public officer or officers, some public service corporation, some volunteer civic organization, independent of our planning commission, jealous of its rights, proud of its partial achievements and perhaps, indeed, as efficient as public sentiment at the present time demands for their administration, including their planning. If our imagination is limited in scope, our commission is bound to get into trouble with its neighbors, both official and otherwise, but if our ideal is to direct and control the making over of the territory now occupied and plan the subsidiary suburban area in all its material and physical aspects, then our problem is much more simple, at least in the statement. The central idea of city planning must be comprehensiveness of design and coördination in execution. This main purpose lost sight of, even for a moment, the commission is in danger. In its early days let it not specialize, except where it must; let it not originate where a beginning has been made by some other body, whether official or unofficial; let it not investigate so much as stimulate others to investigate; let it not criticise so much as sympathize.

The title of this paper is the "Organization and Functions of a City Planning Commission." The organizing of a body burdened with the almost boundless ambitions, within the cramped quarters and with the feeble authority which a brief review of city planning discloses, may be undertaken with some mental reservations. How shall it be created, how constituted, what shall the number be and how large a professional force does it need? It must have the respect, and become essentially a part, of the bureaucracy, and therefore should receive its appointment from the executive; since it must have the respect of the public service corporations, of the voluntary societies and of the authorities of neighboring precincts, it should receive its powers from the legislature. Public opinion must be moved to cause the enactment of laws, therefore the member-
ship should be composed of citizens of influence. The number of commissioners and the subordinate force employed need not be large, at least the latter need not be great at the first. Although the commission in the main will be composed of laymen, a member trained in civil engineering and one learned in the law would be of very great value. It should be needless to say, because apparent, that the general effectiveness of the body will be proportionate to the degree of interest, of intelligence and of tact displayed by its membership.

Now, what is the first step to take? I should say to obtain the aid of a professional adviser, then survey the whole situation, catalogue all the elements involved, the public officials, the corporate officials, the civic societies, the municipal finances and the required legal powers. After this survey is completed certain forces must be set in motion to lay the ground for the exercise of the function of the commission on a broad scale. The first aid to the commission from any and every viewpoint will be the public and personal interest aroused in its favor; therefore it would seem highly advisable to carry on a well-organized and directed campaign of what is called publicity. Unless the economics of city planning are well developed in its early stages, the plans will die aborning, and therefore as rapidly as possible the enactment of laws should be procured containing the principle of local assessment, public ownership, of the use of the municipal credit in the construction of public works and self-supporting public utilities, and, lastly, at the proper stage of development the commission must obtain the veto power over all plans and designs.

Now, what is the function of the city planning commission? How does it fit into the existing organized administrative agencies, official and otherwise? What shall it do, what acts shall it perform and how? It certainly seems clear that it should not attempt to abstract from or encroach upon the prerogatives of any authority already
established. The very scope of city planning negatives such a conception of the office of the commission. Rather than dismiss or demote any of the existing agencies, enough gaps are apparent to justify the organization of still more workers. All these public and corporation officers, all these altruistic citizens and societies, are already and for a long time have been planning after a fashion. The city planning commission has been called into being because they have not planned large enough, comprehensively enough, wisely enough. They lack the vision which the commission is to supply, the influence to obtain a hearing which the commission must bring, the authority to employ an adequate force of capable assistants often necessary which the commission must obtain for them. They must become the principal tools with which it will do its work. As recited above, there are four or five different classes of persons constituting the mechanism engaged in public administration. If the city planning commission will assume the initiative, assign to each one the preparation of his appropriate share of the city plan, the larger part of its preliminary work, at least in volume, will be cared for. The street department would be willing to address itself to perfecting a comprehensive thoroughfare system; other divisions of the government would prepare a park and boulevard scheme, a complete sewer system, and so forth. No doubt the growth of the city and the constant shifting of the population have resulted in an uneconomical and illogical distribution of the public schools, of the police and fire stations. The departments of water supply and highways have a number of subsidiary centers that in all probability have been not only outgrown long since but badly located as well with reference to distance, topography and thoroughfares. All these must be located and relocated with reference to each other on a comprehensive basis, so that not only will each be a perfected unit of itself, but that each will support the other as far as desirable. The officers in charge of these matters are presumably men of capacity
and experience, with some personal pride as well as considerable official ambition. Who else is as well equipped to suggest, in a preliminary sense at least, the necessary changes and reforms? It is true they now lack the larger view. That is to be supplied by the commission. There must be consultation. And this attention to distant and ulterior considerations can be easily aroused. It is my opinion that, once interest is directed to this fascinating subject, all of these subordinate officials will develop into city planners. They will begin to find the time they now seem to be without, even though it must be out of office hours.

One of the chief functions of the commission is to bridge the gap existing between independent public authorities. Public policy has been careful to devise an elaborate system of checks and balances, but until now no attempt has ever been made to answer the crying need for a unifying force. We have stood off at arm's length too long. As between the city officers themselves, the commission should, by reason of their common association around the same executive, be in position to induce collaboration with a degree of ease, but its task is harder with reference to the managers of public service corporations and more still with the suburban authorities. As to the former, the planning commission must first be backed with some legal power to call upon and direct the attention of their managers to those of their activities which have city planning aspects. We have a hint of the persuasive authority of statutory introduction of public officers to great corporations in the Erdman law enacted by Congress for the purpose of mediation in labor disputes. Our planning commission in the law creating it should be empowered therefore to suggest, to consult and advise with corporate managers as to their improvements. And indeed the same is true as to other public officers and even private citizens. It is no infringement upon their rights, and doubtless many would welcome it. The councilmen or aldermen too should be eager to support the commission when it takes a stand. Both the
CITY PLANNING CONFERENCE

moral authority and the regulatory powers of the city legislature are great. The municipality is handicapped in dealing with these corporations, generally by the lack of an appropriate administrative organ. Every city should have a public utilities bureau, composed of an official who would be conversant with and represent the side of the city in the many matters arising regarding the public utilities. The questions of enlargement and extensions have been handled by the utility companies in much the same short-sighted fashion as similar matters have been dealt with by the city. Such an officer under the guidance of the commission would become a city planner. He would be an invaluable agent in the public service matters with which it is concerned.

The planning commission will have difficulty in establishing relations with the suburban officers. The latter are suspicious of annexation and, besides, possess inferior financial resources. The solution of this situation seems to lie in the metropolitan district, although it is not an easy accomplishment. In the meantime representation in the membership of the commission may be to a considerable extent open the door to cooperation.

The commission should assume the same attitude to the civic organizations that it does to the public officers. Recognize each one within its own chosen field. Supplement its work rather than assume charge of it. Representation here, as with the suburbanites, would go a long way towards disarming suspicion. These outside bodies can easily be stimulated to a sufficient degree of interest to do their planning according to true principles, and they will constitute the chief force in arousing the intelligence of the community to action. There should be at least one organized body at work upon every phase of the municipal problem, sometimes an official, occasionally an employed expert and often a volunteer organization. A complete survey of any city will disclose the fact that some matters have been thus far entirely ignored. No specific suggestion
can be made here as to how they shall be added to the program of the planning commission. No two localities are alike, and circumstances must govern, but it seems plain that it is the duty of the planning commission to take the initiative where no other body has. Such vital concerns as sewage disposal, rapid transit, markets and city beautification cannot be ignored by any city. There are many others, only secondary in importance, which the planning commission must take cognizance of and find some competent official or body to investigate the situation and outline the remedy. The commission itself had better assume direct control but rarely. It must oversee and supervise too many others; it must attack the problem from every standpoint, from all sides.

The city planning commission is the answer to a long-felt need. It is the centripetal element in a sea of inert and diverging energies; it is the element which supplies a vision of time, space and proportion in a field of routine; the element spreading enlightenment among the ignorant and enthusiasm in the fight against passivity. It should be complementary to some forces, supplementary to others; sometimes it will be the initiating force, sometimes its function will be supervisory. Some it should deal with in the character of a superior, others it will be on terms of equality with, and towards still others it may be compelled to appear before as a petitioner or even a supplicant. Regardless of its rank or dignity, it should draw all other elements to it; regardless of delay, it should first make its survey and prepare its program. Only thus can it become a grand clearing-house of effort, only thus can it set the whole city to planning. The ambition of city planning is the ideal. The immediate physical achievements resultant from its endeavors may be negligible, and may appear plainly to be so upon first view, even before a beginning is made, but the commission should not be deterred by such considerations. I do not hesitate to advise the planning of a hundred projects, if the need exists, even though [84]
serious enough obstacles appear to check their accomplish-
ment, because it is only by investigation that we can really
and conclusively learn what and when and how we can suc-
ceed in obtaining our desires.

Discussion

John H. Gundlach, St. Louis, Mo.:
The city planning movement in St. Louis was started
by the Civic League. It was conceived about seven or
eight years ago and it led up through constant agitation
to the introduction of an ordinance into the city council
which created the present commission. The commission is
formed a little differently, I think, from any other in the
country in that its membership comprises six city officials,
the President of the City Council, the Speaker of the House
of Delegates, the President of the Board of Public Works,
the street, park and building commissioners, and nine
citizens appointed by the Mayor. This puts the city ad-
ministration in direct sympathy and contact with the city
planners and, on the other hand, through the membership
of citizens who are appointed by the Mayor in better
accord with the citizenship generally.

While we can show no concrete accomplishments thus
far, we have projected several of the principal features of
a plan which can be used as a basis for further develop-
ment. We found early during our investigations that we
were up against the constitution, that is, the statutes of
the city, which has been referred to so much. The city
has the right to condemn property for street purposes,
but when we came to consider parkways we were told by
the city counselor that it would be necessary to adopt
an amendment to our charter before we could acquire the
power which we hoped to invoke in the consummation of
our plans. Such an amendment has been approved by the
commission in which is incorporated the idea of assessing
against special benefit districts the cost of the new park-
way. Under this amendment a commission will assess first the damages due to the taking of private property and then the benefits both to the entire community which will be assessed against the city and the benefits to the district specially benefited which will be assessed against property owners in the district. The specially benefited district will be without any definite limits until determined by the judgment of the commission. In establishing the great central parkway, which is the leading feature of our plan, we would include the entire down-town district of the city as part of the specially benefited district, a district of very high assessed valuation which will be well able to pay the special assessment, thus making the cost to the city at large very small.

I do not see how any city plan commission can be of any great benefit unless it is given a veto power. Through ward representation, legislators elected to serve the city are usually men whose knowledge and experience are both limited. They are asked to decide questions involving the expenditure of many millions and of great moment to the development of the city. If we must have this so-called popular representation we should have a commission which has, at least with reference to the physical planning of the city, the power to be an effective supervising board because it has made a special study of those conditions and is better qualified to judge.

Since few cities possess the power to impose special taxes for parkway improvements the most essential requisites at this time are, first, an educational campaign to impress people with the selfishness of city planning, that is, that it means their immediate welfare and economic gain. Second, put such laws on the statute books as will give a properly constituted board or commission the power to accomplish results; and third, a capable board composed of men of vision free from all political and public utility entanglements who can only be swayed by community interest.
WALTER E. KRUESI, Schenectady, N. Y.:

At first I understood Mr. Magee to say that the lack of results in the years of city planning was due to the floundering of planners. I thought he meant that the experts we had were floundering, but I entirely agree with him if I understand him to mean that the local groups which support these experts and which are supposed to direct them are floundering. These groups are too unofficial, have too little power and responsibility, or if they feel responsibility, it is only to themselves or to a group which raised some of the funds for their use. They have not the sense of civic responsibility which comes from getting the power from the people; in other words, they are undemocratic bodies.

Mayor Magee has brought out the loss and waste due to lack of correlation and unity among members of a city planning commission or separate local improvement associations. A few of our cities attract particular attention because there is more Chicago spirit, more Rochester spirit in them than there is mere sectional or group spirit. We can accomplish better results if we can get the council to act together, or if we can make the heads of departments work together. I cannot agree with Mayor Magee that judges have any proper part in administrative function. I think that the plan and the execution of the plan is simply an administrative function and we should not allow the judges to have anything whatever to do with it except in their capacity as private citizens.

ANDREW WRIGHT CRAWFORD, Esq., Philadelphia, Pa.:

As I understand Mayor Magee's suggestion it is that the city planning commission, instead of being a distinct department, should really form a clearing-house for departments already existing. At present each head of a department is so busy getting the money to run his department and each department is so busy with the present
needs of the city that there is no time for its head to think of the future. I know that all the heads of the departments in Philadelphia are supposed to be called together monthly by the Mayor for this purpose; but, as a matter of fact, the custom is for department heads to think little about the future growth of the city, but much about getting the biggest share of any available moneys for his department. It seems to me that a city planning commission as provided for in the legislation passed for the cities of the second class of Pennsylvania is an admirable agent for bringing together the heads of the different departments to think of the future of the city. Another result of such cooperation should be the grouping of public buildings, which will give vastly better results, from the points of view of both utility and beauty.

**Alfred Bettman, Esq., Cincinnati, Ohio:**

In the few minutes that I have been thinking about Mayor Magee’s paper I have not been able to reach a conviction, but I am in doubt as to whether, in the suggestion for giving the city plan commission veto power, we are not being led, by enthusiasm for city planning, into a retrograde step in municipal government. The experience of American cities in general has been that division of authority produces a division of responsibility. It has created many of the phases for which American city governments are noted. It seems to me there is danger of creating the very evils from which we had escaped by the concentration of responsibility. I would suggest that there may be a power given to the commission to refer a question of planning to the people, or to give the commission a veto power which can be overruled by the city council.

**Henry Sterling, Boston, Mass.:**

It is a matter of regret to me that I do not find myself quite in harmony with the spirit of the convention. I know the right thing to do under such circumstances is to
CITY PLANNING CONFERENCE

say nothing; and yet my reason for speaking, it seems to me, is fundamental.

I have had the privilege of assisting in passing the measure that was signed on April 16, making it mandatory on every city and town in the state of Massachusetts above ten thousand inhabitants to institute forthwith a planning board. Those planning boards are to examine, and investigate into the needs, the resources and the possibilities of the community, particularly in regard to the surroundings and environments of the people living in tenement houses.

Here at the Conference the proposition is entirely reversed. Here we talk of civic centers and of beautiful parkways, and we speak of the development of the streets. And once in a while we refer to the needs of the common people.

Now I know of some spots in one large city where ninety-five out of each thousand of the children under five years of age are dying annually, and in that same city there are spots where only from twenty-eight to thirty-two children out of every thousand under five years of age die annually.

It seems to me that the challenge to you, as city planners, the challenge to me, the challenge to every civilized man, is to change conditions so as to reduce the number of unnecessary deaths.

I want to say just one word, Mr. Chairman, as to the veto that a planning commission should have, and I say frankly that I do not believe in it at all, because I think the result ought to be reached in another way. It seems to me that the plan, after it has been carefully thought out, after it has been submitted, if you will, to a referendum, and after it has been accepted by the city council, should be effective; that it should be made obligatory on both public and private interests to live up to that plan. If you provide a method of amendment, when amendments are necessary, then your veto power would be unnecessary.
It seems to me that it would be dangerous to create such a new commission and give it such governmental authority as a veto.

Your city plan commission can do as the state of Massachusetts says it shall do. It can consider the conditions of the poor and can begin from that point and work out and develop not only a city beautiful, but a city healthful, a city humane, a city uplifting.

Dr. Matthew D. Mann, Buffalo, N. Y.:

Just a word with reference to this veto matter. I was appointed on a committee four or five years ago to draw up a bill for creating a plan commission for Buffalo, and I got together a number of laws from different cities. After studying some of these bills very carefully, I made up my mind that the veto power vested in the board was absolutely necessary to accomplish anything. We concluded, however, that the full veto power would not work, and as the bill now stands it gives to the plan commission a modified veto power. The action of the plan commission in withholding its approval of work proposed by any municipal department can be overruled, but it must be done by a two-thirds vote of the city council. Without a veto power of some kind the plan commission is certainly in a very poor position, and the modified veto power which we have given in Buffalo will at least give ample opportunity for careful consideration of any project.

Frederick L. Olmsted, Brookline, Mass.:

I think perhaps the term "veto power" may cause some confusion in ideas, but whatever this power is called, the purpose it is intended to serve must be accomplished somehow, if the city plan commission is to be taken seriously.

Mr. Sterling suggested that a veto power would be wholly unnecessary if the plan when prepared were made mandatory; but a plan will not enforce itself and can be enforced only through a human agency to interpret it.
CITY PLANNING CONFERENCE

The projects of all municipal departments involving physical development should be submitted to the plan commission, which should have power to prevent any action in a given case until the project has been compared with the general plan and considered from every point of view. This could be accomplished by a modified or suspensory veto, as has already been indicated.

I wish to raise another question. I should like very much to hear what Mayor Magee has to say on the question of official representation upon a plan commission of the heads of various departments of the city whose work is to be woven together by the plan commission. The advantages of such representation are quite obvious, since it would help insure the consideration of various projects before the commission from the angle of each department. On the other hand, such ex-officio composition of the commission is likely to result in less attention to the work of the commission, since the members would not look upon their work as plan commissioners as their primary function.

HON. WILLIAM A. MAGEE, Pittsburgh, Pa.:

My personal feeling in regard to Mr. Olmsted's question is that no particular executive officer should be on this commission unless all can be. In a city that has a commission form of government, say, not more than three or five commissioners, I should say that all ought to be on the planning commission. In a very small city, if there is one particular officer that has practically all public work under his control, I should say that he ought to be on the planning commission. But in larger cities of several hundred thousand, where there is a wide distribution of executive authority it would be a hazardous experiment to take on any one in view of the jealousy which might be aroused. It certainly could not take all heads of departments, for your commission would be made unwieldy.

My way of meeting the difficulty is to have the commission obtain its authority directly from the chief execu-
tive of the city who, at least in theory, has all the administrative functions directly or indirectly under his control. If the planning commissioners receive their appointments from the Mayor, they are most likely to have the effective cooperation of all the heads of departments, since they are all subordinate to the chief executive.

I should like to say one more thing about the veto power. I feel quite as strongly as the other gentlemen who have spoken on this point that the commission ought to have some measure of control over all projects which affect the physical growth of the city. This power should not be absolute. I think the proper measure of control would be effected by requiring the reconsideration on the part of the councilmen or aldermen of those ordinances which have been vetoed by the commission. The real value of the veto lies in the fact that the attention of the public is attracted to another view of the question. If the opinions of the planning commission on the vetoed ordinances have merit, no doubt enough public attention to the matter will be attracted by the publication of the planning commission’s veto message. The final judgment of the councilmen or aldermen therefore will be based not only on having two views of the matter presented to them, but the views of the planning commission will be fortified to the extent of their value by expressions of public opinion through the newspapers and other media of public expression.
SOME ASPECTS OF CITY PLANNING WITH REFERENCE TO THE CHICAGO PLAN

Edward H. Bennett

Chicago

The purpose of this paper is to present some of the aspects of city planning embodied in the Chicago plan, especially in connection with their relations to the welfare of the community.

The object of a city plan is:
To stimulate the people as a whole to a realization of the advantages of civic betterment;
To create in the public mind ideals of civic order and convenience;
To encourage coöperation among various civic bodies and groups of individuals to achieve results which can be accomplished only by community effort.

The plan itself should embody:
The study and the record of the main considerations upon which the well-being of the community is dependent. Nothing should be neglected which affects the life of the people of any class or age, whether at work or at play; and the subject should be presented in such a form as to make the most direct and convincing appeal to those for whom the work is undertaken.

The interdependence of all the elements which go to make up a city must be realized. The physical aspects of the city should be the embodiment of the ideas of the community; and, conversely, that city plan will be best which best expresses the ideas and aspirations of the people, and which provides for the very best conditions of living for every class in the community.

[93]
Street System

The most important consideration of the city plan, and one to which everything practically leads in the end, is the street system. To the streets relate all circulation but that of the railroads. The street system includes

Vehicular traffic;
Pedestrian traffic;
Traction-surface, subway and overhead;
Drainage and conduits of gas, electricity, telephone, telegraph, etc.

And on the disposition, width and treatment of the streets depends the livable character of the city, its air, light and even temperature. Seen in the large, the streets are the corridors of the districts they penetrate. The mere fact of opening up the many impasses throughout the city and connecting them with wide streets and parkways removes the stagnation from them, letting in this light and air, and aids the movement of its life. With this is coupled a consideration of the development of the street congestion which is encountered.

In a recent study of street systems a method of analysis was developed which enabled us to establish beyond question the function of existing streets and the necessity for new ones.

This method is largely a qualitative one and only in a general way a quantitative one. It consists in finding some connection between the burden placed on a street and the area which this street serves. The assumption made is that in getting from one place to another the natural tendency of traffic is to find the shortest route. This method of analysis shows what streets ought to be used and what streets are wrongly used. A comparison of the results obtained by this method of analysis with counts actually made on the street showed whether a street was carrying its proper portion of traffic, and if it were not, the ques-
tion as to why not was studied. It automatically placed the streets in their proper relation to one another and to the city itself.

The actual method followed was in general as follows:

Objective points or areas were chosen which were naturally and logically (and which were known beforehand to be) the points towards which traffic in general moved. For instance, in the city of Brooklyn, New York, the East River bridges were chosen. Every portion of the city is then studied, the city is then divided into a number of areas, and from any point in a given area a way is found along the existing streets which is the shortest way from that point to the objective point.

This study indicates whether the existing main lines of travel leading to the objective points are so circuitous as to make advisable the creation of an entirely new thoroughfare along a median line, or the extension of existing thoroughfares in such manner as to obtain a reasonably direct traffic route. The diagram produced shows immediately the main carrying streets and whether a relieving artery is needed.

This method of analysis combined with the study which had been made of the utilities existing in the various areas of the city enables a qualitative statement to be made as to the kind of traffic which the streets in any area will carry. It also showed in large measure the reasons for the general form of the city, whether circular or elongated.

Such a study recently made substantiates the finding of the Chicago plan in regard to the necessity for new streets and widened streets in Chicago's center.

At present Chicago has a population of two and one-quarter million people and a central business area of one-quarter of a square mile. This area is developed as follows:

16 stories and upwards .................. 16 per cent
12 to 16 stories .......................... 14 per cent
8 to 12 stories .......................... 8 per cent
Under 8 stories .......................... 62 per cent
CITY PLANNING CONFERENCE

By averaging these figures we find that the area of the loop or business area is carrying today 50 per cent of its ultimate capacity, if it be built up solid to 16 stories. That such solid development is improbable is due to the likelihood that there will be many buildings, banks, hotels, administration buildings and clubs which will be of much less height and which will not be used as intensely as are the business buildings. On this account it is probable that the loop is carrying today 60 to 70 per cent of its ultimate business capacity, and that to provide for the business necessities of a population of five million people, we shall require at least 50 per cent more area than is now in use, and with a population of eight or ten million people, three times the present area will be necessary.

When the population has increased to five million, or twice that of today, traffic will have increased proportionately. If it be admitted that the streets are overloaded now, it is easily seen that with the street cars removed entirely, and with every vehicle on the streets in motion, they will hardly be sufficient for the future increase with five million of population, not to speak of the increase beyond that figure.

At present there are five continuous streets running through this area from Chicago Avenue to Twelfth Street, between Michigan Avenue and Halsted Street, a distance of over one mile, and there are nine streets running east and west from Michigan Avenue to Halsted Street, between the river and Twelfth Street, a distance of one and one-half miles. Each of these streets between the river and Harrison Street is congested to the limit, and immediate relief is imperative. Removal and re-routing of street cars and the prohibiting of parking of vehicles will give only partial and temporary relief. With 50 per cent more business concentrated in the loop, which is the central business area, and with a population in the city of five million people, conditions will be impossible. Provision other than regulation of traffic will have to be made. With the flow
of business area southerly and westerly provision for east and west streets between Van Buren and Twelfth Streets and of north and south streets west of the loop will have to be made to serve this territory. To provide for this increasing congestion it is proposed to open up a main east and west artery as close to the south end of the present loop as possible, and to straighten the river from Twelfth Street to Sixteenth Street and open up and carry through five new continuous north and south streets and to widen others of the existing streets.

If these improvements are not carried out or the business area not allowed to expand, provision for traffic will have to be made ultimately by turning sidewalks into the roadways and building elevated structures to carry pedestrian movement. This will probably have to cover the entire street and all streets. All vehicular traffic will then be in a virtual subway. The street cars will be in a subway, and we shall have three level streets or, with a rapid transit subway, a four-level street. The result of this will be that street-car passengers will have to climb at least two levels, or about 30 feet, from their means of transportation to the shopping level.

It is estimated that in Chicago as many as 50 per cent of the population travel on the street cars and elevated road per day; that as many as 15 per cent go in and out of the center of the city to work each day; that 15 per cent women and children enter the same section per day; that 4 to 5 per cent of the people walk in and out of the center of the city each day; that 13 per cent of the population, school children, are away from home each day; two-thirds of the population, that is to say, one and a half million people, are away from home from one to two hours to all day on every week-day. A large proportion of the remaining population or the women and children are also abroad during the day on the streets or at the parks and playgrounds. A small proportion of those traveling
during the day also cover the same routes at night in search of entertainment.

Eighty per cent of the total population, therefore, or 1,800,000 people, in one way or another are affected psychologically, as well as physically, by the quality of operation of the street cars, elevated, subway or roadway service, and by the quality of the development of the streets, boulevards and parkways with regard to paving, lighting and general architectural development.

Coupled with the street problems is the problem of the river, its frontages and bridges. What can be more demoralizing than the influence of the disorderly conditions of the Chicago River? And yet this sight affects 30 to 40 per cent of the population daily. These same people are affected at the rush hour by the confusion and congestion in the struggle to reach the elevated stations, the street cars and the railroad stations. At the end of a day of toil what but demoralizing can be the influence of these conditions?

Many similar examples of lack of order may be cited. These are typical, and are applicable not only to the main center, but in a less degree, also, to the sub-centers, and are basic conditions underlying the study in city planning in its constructive sense.

**Railroads**

The limits of occupancy of territory by the railroads for purely railroad purposes in the down-town sections are suggested in the plan of Chicago in order to make possible the proper growth of the business center necessary to the future population.

In the plan of Chicago the advantages arising from the separation of the mass of the industries from the heart of the city and their concentration in areas, properly and logically related to rail and water communication, are indicated on the diagrams. These areas lie along the belt
lines and the river and center in the large freight terminal or yard at Clearing. The residential districts are thus defined as distinct from and unspoiled by industrial conditions.

The advantages resulting from this study is obvious, since to a large extent the location of the railroads in and surrounding a city determines the location of the zone of industry. Study of the growth of cities has shown that, where many railroads radiate from the city in different directions, the triangular-shaped areas lying between them, for a considerable distance out from the center of the city, are reduced to a low level of utility, even though they may have comparatively high value in the real estate market. This leads to the use of this market in an intensive and wretched manner, and it is in these pockets that we find the worst tenements and slums. If the railroads are properly placed, a minimum of property will be reduced to this condition, still allowing sufficient room for zones of industry. This is the only present practical method in this country for the zoning of areas of the city which is done by legislation in Europe.

Actual gravitation of industry should be towards the focus of the railroads. The ultimate concentration, therefore, in one great area accessible to all the railroads will have the tendency to remove industries from the central zone and will permit of the occupancy of this territory for other purposes and will thus facilitate the future unifying and simplification of railroad rights of way.

As before stated, in the Chicago plan, this center or focus is the Clearing Yard, already established at the center of gravity of all the roads coming into Chicago. Outside the city center and around this industrial center which is created at the focus will grow up a community serving the industries with workers, and this residential zone will merge into that already inhabited. Various industries have already been located around this clearing yard. The response, however, to the conditions of service offered
CITY PLANNING CONFERENCE

in this neighborhood has been less rapid than might be expected, and it is slowly being demonstrated that there is a strong need for actual regulation and control rather than mere suggestion. There are now 26 trunk railroads coming into Chicago. The yards of the railroads are now increasing rapidly, and new railroad yards and freight centers are being established all over the city, satisfying only the needs of individual roads without regard for the districts they are affecting. This is not only taking place in the outlying districts of the city but also to an enormous degree within the center or down-town district. The problem, however, in the down-town district is now being handled by those in authority, and it is hoped that a comprehensive plan suited to the needs of the business interests but so ordered as to be without menace to the business district as a whole will be worked out and the right limitations will be established.

The solution of this problem does not necessarily exclude freight terminals for local use from the heart of the city. It does, however, involve the prohibiting of overhead crossings and has shown the necessity of placing the approaches below grade. Intensive development is being recognized as necessary at these terminals, and freight and storage warehouses are being established above railway tracks, many stories in height. The establishment of railway lines under cover can be accomplished with the advent of electrical operation, and the advantages resulting from the concentration proposed are that business is allowed to develop around these terminals and to extend out over new territory in a properly economic and uniform manner. Ultimately these terminals will be forced back by reason of increase in the value of the property occupied.

HOUSING

Reference has been made to the safeguarding of residential districts. Without entering into the details of the
CITY PLANNING CONFERENCE

housing problem, the question is reduced in large cities to a consideration of tenement dwellings near the center in which strict observance is maintained of properly devised building and sanitary ordinances and to the provision of regulated territories miles distant from the center, coupled with cheaper means of transportation than now exist.

The former can be obtained now. The latter is by no means improbable in the light of the advance of modern inventive science in reducing the cost of transportation and its operation.

In its broader sense, however, the term "housing" applies not simply to conditions of dwellings of all classes, but also to all the leading factors of civic life and development. Housing in its broader sense has a far-reaching meaning. It covers the working conditions of the people as well as their home conditions. The number of people in Chicago affected by individual and business conditions is 30 per cent of the total population. The importance of controlling conditions under which men and women work becomes apparent when it is realized that the workers themselves have no control over them. Within certain limitations the citizen is free to choose his home and, with the exception of the really needy, does so, but the surroundings among which work is done usually are beyond the control of the worker.

PARKS

Another important consideration or phase of city planning is park areas. It is not necessary to insist on the general value of park areas. They are as essential to the city at large as windows are to a dwelling. The city plan aims to locate parks in adequate areas where they will be most efficient. They affect, or can be made to affect, the lives of all the children and a large proportion of the adults.

Police records show an extraordinary decrease of youth-
ful crimes in the neighborhood of playground parks. Already in Chicago, with these parks only a few years old, the new houses in their vicinity are showing a marked improvement over the old.

The location and apportioning of these playgrounds is a study in itself and is fast becoming an exact science. The fundamental point of view taken is that parks should be brought to the people rather than the people to the parks; that the large investment in public schools should be utilized to its limit, and that the development of the playground system should progress with the growth of the city and with the development of the schools. It is found that in most cities the schools are concentrated where the population is densest. From observation of small playgrounds already built it is found that a good arrangement of play and gymnasium apparatus can be placed on one and a half or two-acre plots and with a proper arrangement of play periods about 700 to 1,000 children can be accommodated per acre. With these points in mind as a basis of discussion, a minimum of two acres was adopted as a reasonable figure for a playground, and at or around each school a plot was placed on the basis of 700 to 1,000 children per acre. These open spaces and the actual school building should be used to a large extent as a recreation and social center in the evenings. In this way large numbers of working people can be served with social activities.

In order to provide athletic facilities for the older children and the working population, it was decided, after observation and study of such athletic fields as have been developed, that 15 to 20 acres should be the minimum unit. These should be reasonably close together, not more than two miles apart so that no person would find it a hardship to get to them after working hours or on Saturday or Sunday. At each of these large athletic centers there will be developed swimming and gymnasium facilities, together with branch libraries, auditorium and all other social ne-
cessities which go to complete and fill in the leisure time of the working people. These facilities should be provided for both men and women.

As a third element in the study of the interior park system, the larger parks should be tied to the street system so that they may be easy of access to the great mass of the population. Water-front should be developed wherever possible, both with reference to social activities, bathing, fishing, yachting and parkways.

**General Development**

Were it possible to devise and compel observance of ordinances governing height limitations, percentages of area of lot occupied, the growth and development of cities could be controlled along lines of absolute perfection and could be molded in ideal form as a work of art in the untrameled hands of the artist. The complete expression of such a condition requires a prescience more than human. It is, nevertheless, a goal towards which we must work and is involved in a city plan study.

The actual possibilities of this molding of a city in its aesthetic and psychological bearing and in broad manner by the means of properly devised regulations is made more clear by reference to the examples of the city of Paris. The city of Paris, as seen from any moderate height in which the roof line comes into view, has the appearance of a domed city, comparable only to a city in the Orient, except that its contours are more diverse. Its outlines, controlled by the dominant straight lines of the streets, are largely rounded, although not always made up of curves. This general effect, which is one of sharp contrast with the rigid outlines of the average American city, is the result of a single ordinance regulating the height of buildings, a clause of which allows of building to a height above the cornice line which is established. This additional height, however, is limited on the street frontage by the
are of a circle of a fixed radius. Within this line may be found the Mansard roof with its simple straight line, or a series of smaller Mansard roofs rising one above the other, or a curved roof containing several stories within its height and broken by dormer windows. Such an example as this is interesting in the light of our own building ordinances, and shows that by careful study of these ordinances not only may the sizes of courts and the percentages of area of ground covered by the buildings be shaped according to economic and sanitary conditions, but also that a general harmony of outline and sense of order may be established.

The bearing of the welfare of a community is almost limitless. I have aimed in this paper to deal with the question of the city plan wholly from the point of view of the public welfare, reserving considerations of the economy of a good plan (which are quite as fundamental) and I hope that what has been said may aid and encourage city planners.
TRANSPORTATION AND CITY PLANNING

INTRODUCTION

Bion J. Arnold
Chicago

The subject of transportation at the present time is a very live one in this city and it may not be out of place if I give what I believe to be the fundamental elements of a proper traction system of a large city. If you have a theoretically perfect city, rectangular in shape, with the business district in the exact center, with all the streets straight and wide and no hills and no rivers, you could lay down a theoretically perfect traction system. Hills of moderate size are not necessarily a detriment to such a system, but it could be operated more cheaply and better for the people if the city were level.

Under such a system a certain number of cars would run from the limits of the city on each side through the business section to the limits on the other side, and a certain number would run from some point between the limits of the city and its center, or from about one-fourth of the way down to the business center to the corresponding point on the opposite side; a third set of cars would run from one-half way between the business center and the city limits to the corresponding point on the opposite side. In this way the greatest service is given where the densest traffic exists, namely, the business center.

Unfortunately we have to deal with traction problems that are not in ideally perfect cities. Cities in this country and other countries have not always been laid out or
CITY PLANNING CONFERENCE

planned, but have grown to meet the exigencies of the case, sometimes following old paths or trails, and the result is that they are often narrow, crooked, and up and down hill. In Pittsburgh, Boston, San Francisco, Cincinnati, and Seattle, for instance, the streets are for the most part crooked and the traction system has to be built to fit each locality, and the problems which have had to be solved have been rather difficult.

I thoroughly believe that we ought to have through routes in this city. No one can tell absolutely whether they will be profitable until they have been tried. In Chicago we have a three-sided city and consequently the cars from the west must either loop, stub end, or run for some distance to the north or to the south, after coming to the business center.

We have recognized the correctness of these principles in Chicago and have partially adopted them by the establishment of something like twenty-one through surface line routes. Owing to the separate ownership of the traction companies the complete adoption of these principles to their greatest economic extent has not been effected, but the possibility of a merger of these surface line companies, and eventually of them with the elevated companies gives us hope that the through routing principles will soon be universal in Chicago.
TRANSPORTATION AND CITY PLANNING

Milo R. Maltbie
New York City

In the discussions of city planning there has been a noticeable lack of consideration of transportation facilities. Volumes have been written on the relative advantages of street plans, and the ingenuity of engineers, landscape architects and municipal experts has been taxed to discover the most attractive design. But with the exception of this one factor, the public highway, so little consideration has been given to transportation that it is almost a virgin field from the standpoint of city planning. Yet I venture to assert that there is no one factor, with the possible exception of topography, which has a greater influence not only upon the direction of city development but upon the character of the city from every standpoint.

It is impossible for a considerable number of people to live in a small area without many transportation facilities. The country village without a railroad never passes the rural stage. It is obviously impossible for a community to become a center of industry and commerce without numerous means of communication with the outside world, and metropolitan cities must have not only facilities for the importation of food products and raw materials and the exportation of manufactured articles, but various methods of transportation within the city itself. There is competition between cities, and the one which has the best transportation facilities by land and water is ordinarily the one which increases most rapidly in population and is the largest center of trade, industry and commerce. The
CITY PLANNING CONFERENCE

city which has the cheapest, most rapid and most convenient transportation facilities for communication between its various parts is the city, other things being equal, which has the most productive and healthful citizenship.

A few illustrations will suffice. It has been found that the commuting zone is generally limited to the area which can be reached within 45 minutes or an hour from the heart of the city, and usually the great mass of population is within a half-hour’s radius. It is not so much a question of distance as a question of time, together with the convenience of travel, and persons will go further if it is not necessary to change facilities, as from rail to boat or from one railroad to another railroad, than they will if the trip involves such inconvenience. As the area which may be reached varies with the square of the radius, it is apparent that if it is possible to go twice as far from the center in one city as it is in another during the same length of time, the available area is four times greater in the first instance than in the second; and with the same population the density of the area inhabited need be but one-fourth in the first case of what it is in the second, and single houses of two stories in height will house the same population that would in the second case of necessity be housed in tenements, solidly built, of from four to six stories.

Attractive housing schemes may be planned and their advantages widely advertised; a fine system of parks, beautiful streets, adequate systems for water supply, lighting and sewerage, beautiful school buildings, libraries and every other social advantage may be provided; but people will not and cannot live there, no matter how beautiful and attractive the scheme, unless they are served with cheap and rapid transportation. Thus, when one examines the map of any large city, he notes that population has followed transportation lines, and that along these radial lines there are the ganglia which center at railroad stations. Between these radial lines there are areas which are com-
paratively unoccupied, and which, as the crow flies, are nearer the center of population than the settled areas along the railroads.

It seems to have been taken for granted frequently that one may plan a city and then depend upon transportation experts to provide transit facilities; that different areas can be set aside for factories, shops, theaters, offices, residences, parks, etc., and that then some sort of transportation system can be evolved to fit the necessities of the plan. But if conscious city planning is to be substituted for accident and haphazard development, the two things must go hand in hand; that is, transportation facilities must be considered at the same time that other factors are under discussion.

The Value of Straight Streets

There is a marked tendency among city planners to use curved streets and broken streets, streets that constantly change their direction. From an artistic standpoint these plans are often very successful, and the treatment of the long straight street is a difficult matter, but the old epigrammatic statement that the curved line is for pleasure and the straight lines for business holds true today. Cheap rapid transit would be practically impossible in a city wholly composed of curved streets or streets which change their direction at short distances. The cost of construction would be large. Private property would have to be taken at many points. Large cost of construction would mean large fixed charges. Operating expenses would be increased because the loss of current in acceleration and retardation and cost of maintenance and repairs would be heavy. Curves reduce speed; reduced speed means increased time in transit; an increase in time means a reduction in the area which can be served, which in turn is a cause of congestion.

Compare the elevated roads in Manhattan with those in
Brooklyn. The former have few curves and hence speed. The latter, in the central portion of Brooklyn, are so crooked and complicated with numerous crossings and connections that trains must be operated slowly. As a result, one can travel on the Third Avenue elevated line in Manhattan 50 per cent farther in the same length of time from City Hall Park than he can by taking any of the elevated lines over the Brooklyn Bridge. This is not the only cause, but it is one of the reasons why the city of New York has grown so much more rapidly to the north than it has to the east, and why there are undeveloped sections in Brooklyn within a few miles from City Hall, Manhattan, whereas within the same distance in Manhattan there are no areas which are not solidly built upon.

The main arteries of traffic should be straight, or as nearly straight as the topography of the city will permit. But it is not necessary that the entire city be checker-boarded. In residential areas, between main lines of traffic, there is ample room for exercise of ingenuity in geometrical combinations which may be beautiful and attractive, but these areas ought not to be planted where they will interfere with the extension of through transportation lines.

**INTERDEPENDENCE OF FACTORS**

The close relation between the various factors in city planning can be seen in another direction. Foreign cities have generally recognized the principle that the height of buildings must have some relation to the width of streets. The regulations have been determined in large measure by considerations of health, such as the importance of having natural light in the lower stories and sufficient means of ventilation. But the relation between transportation and height of buildings has been little considered. It is obvious, however, that as buildings increase in height, the demand for transportation increases. The streets in a country village are often as wide as those in a metropolis, but it is
obvious that a city with buildings ten, twenty or thirty stories in height ought to have a larger street area. In the lower part of Manhattan the street plan is practically the same that it has been for generations. All of the available streets will soon be occupied by rapid transit lines for the transportation of passengers. Unless additional streets are to be cut through at enormous expense, it will be necessary to limit the height of buildings and diffuse congestion, or to construct subways on lower levels. In addition, provision must be made for the transportation of materials, and even now it is apparent that if they are to be handled economically some provision must be made other than the one in use, namely, distribution by truck from distant freight terminals. If freight subways are to be built, they must be located below the passenger subways, which will place them farther below the street surface, with all of the attendant inconveniences.

**Correlation of Facilities**

The correlation of the various facilities for transportation of passengers is probably the most important, and perhaps the most difficult phase of the problem. The location of terminals and lines devoted exclusively to interurban traffic is not specially difficult, but practically every railroad does a suburban business, and in some cases it carries a large percentage of the population of the city itself. So far as railroads do a suburban and urban business, it is essential that in every city plan provision shall be made for the location of stations at convenient points, and these locations ought to be selected with great care.

In this connection there are several principles of considerable importance. In the first place, terminals should be eliminated so far as possible. They are costly to acquire, expensive to maintain, and increase rather than decrease congestion. So far as possible, the lines should be operated through a city and not terminate therein.
Secondly, there should be a sufficient number of station stops to distribute the traffic and to afford convenient means of connection with other facilities. It is almost impossible to utilize the same set of tracks for interurban, suburban and purely urban business. Ordinarily the first two classes can be combined, and every railroad should be required, so far as practicable, to transport persons and property between points within the city boundaries. No railroad should be relieved of its obligation to contribute to urban transportation merely because it finds suburban and interurban business more profitable and more easily conducted. But it will be difficult in metropolitan cities for all three classes of business to be satisfactorily carried on a single system. Sooner or later most of the urban business must be done by separate lines. When the time of separation comes, the through lines should not be permitted to unload their passengers at the outskirts of the city and to compel the urban lines to distribute their traffic. They should be obliged to operate lines through the heart of the city and so far as possible distribute their own business. This does not mean that the through lines should be operated without relation to the urban lines, but that they should not be allowed to take the cream of the traffic without some of the skim milk.

Thirdly, it is essential that the interurban and suburban lines be so located that they shall have a relation to the purely urban facilities. It is practically impossible for each trunk line or all such lines acting jointly to provide for the complete distribution of passengers, that is, to land every passenger within a short walking distance of his destination. For this general distribution other means of transportation must be provided, and in order that all facilities (surface lines, elevated railroads, subways, omnibuses, etc.) may successfully perform their function, there must be a correlation and unification of some sort.

In working out a plan, there are several points to be noted. The stations upon the through lines should coin-
CITY PLANNING CONFERENCE

cide with express and local stops on the urban rapid transit lines, and the surface lines should radiate from express as well as local stations. The general idea throughout should be to carry persons as quickly as possible from one point to another, for increased speed means increased capacity and a greater area of service. It is also cheaper to carry persons upon express trains than upon trains that make every stop, provided there is a sufficient number to fill these express trains and to utilize the tracks at some time of the day to their capacity. The tracks upon which trains make every stop should have stations at frequent intervals, but here there should be a careful balancing of distances; for if the stations are too close together, the line ceases to be a rapid transit line and usurps the function of surface transportation either by street railroads, omnibuses or taxicabs. Speaking generally, this last group should be used to carry persons short distances and in areas where the traffic is not sufficient to warrant a more expensive and a more rapid system of transportation.

The proper adjustment of these facilities is one of the most difficult problems of city planning. In the New York subway the idea of local and express service on parallel tracks was worked out quite successfully and was a distinct contribution to the science of urban transportation. Experience has shown, however, that the relation of express to local stations was not so adjusted as to secure the greatest utility for every track. During rush hours the express tracks are loaded to their maximum capacity, and trains of ten cars are run at intervals of $1\frac{3}{4}$ minutes. The service on the local tracks at no time of the day reaches the maximum capacity of those tracks. The maximum number of cars in a train is six, and the minimum headway is about $1\frac{3}{4}$ minutes. The ratio of use between the local and express tracks is, therefore, about three to five. Now the cost of the local tracks is greater than the cost of the express tracks, and would be whether the latter were on the outside of the local tracks or in the center, as

[ 113 ]
they are today, for there are many more local stations than express stations. It is apparent, therefore, that the city of New York is getting, from a transportation point of view, less than one-half as much service from the investment in local tracks as from the express tracks. The explanation is that the express stations are not far enough apart to distribute the traffic properly. In the new lines which are under way, an attempt has been made to meet this criticism by placing the express stations farther apart. It is natural for every one to want all trains stop at the station which he patronizes, and there is usually danger that too many express stations will be constructed rather than that there will be too few.

Can All Cities Have Subways?

The question of cost is a factor which must not be overlooked. The success of subways in a few cities has given rise to the idea that every city should have subways and that all will be profitable. This is a mistaken notion, and the experience of London shows that there is no particular financial virtue in an underground railroad and that unless they are properly located and made coördinate parts of a comprehensive system, they are likely to have limited success. Subways are easily operated, but they are expensive to construct, and the large cost of constructions means large fixed charges. In order to offset this burden, there must be dense traffic or many persons riding short distances. Dense traffic, however, means congestion of population. Areas given over to private houses, each with its own grass plot and garden, cannot furnish a sufficient population to support a subway unless the ride is very short and the rate of fare high. The ride is not apt to be short, for land values in the central part of a city are ordinarily so high that people cannot afford to build one-family houses and devote a considerable area to grass and garden. In order to have single houses, people must
go some distance from the center of the city and then the ride is long. If the fares are high, the great mass of the population cannot afford to pay them and will be forced to live in tenements rather than pay the high fares and high rents which such conditions necessitate. The area naturally tributary to a subway or any line is also limited in extent, for experience has shown that persons will not ordinarily walk more than ten minutes to reach a point where they can board a transportation line. Unless the city is to enter a new field of activity, therefore, or in some manner prevent the inflation of land values, or defray part of the cost of subways by some method which relieves the enterprise from high fixed charges, it is impossible for cities to have subways unless at the same time they are content to have congestion — tenement houses, solidly built blocks and not separate dwellings. The city which desires to avoid density of population and to further the garden city idea must resort to other means of transportation or solve the financial problem.

No matter how the cost of rapid transit lines be paid, their construction results in increased land values, and if the city were to build lines by taxation so that there would be no fixed charges to be paid and fares reduced accordingly, the increase in the land values would be still greater and the landowner would ultimately reap the gain which comes from improved transportation facilities. Unless there is some restraining influence, this increase in land values will be followed by the erection of tenement houses, otherwise the landowner would not be able ordinarily to secure an adequate return upon the value of his property. But the increase in land values is not the original cause of congestion; it is rather the effect of congestion, for land values would not increase if it were not possible to secure a return upon such increased value. Values rise because of the possibility of securing a corresponding profit. If the possibility of a large return were eliminated, the values would not increase.
CITY PLANNING CONFERENCE

However, the cost of rapid transit lines does have an important bearing, for the greater their cost, the larger the fixed charges and the larger the cost of transportation which must be paid by the traveling public. The smaller the construction cost, the greater the number of lines that could be built, and if many lines are constructed and many areas are opened to development, the competition between these areas will tend to keep prices down, assuming of course that the gradual growth in population is not stimulated by some other force which makes the demand for land unusually large. Consequently more attention should be given to reducing the cost of rapid transit lines. A subway is the most expensive kind that can be built. The old-style elevated road is very much less expensive, and the solid floor or so-called "noiseless" type stands between the two. Those interested in a suspended railway claim that it has many advantages, particularly from the view of cost of construction. All of these elevated types are more comfortable than subways, having better ventilation and light. The principal objection to the suspended railroad is that it cannot be operated in connection with any other line and that there can be no interchange of equipment.

Transportation of Property

Thus far I have considered principally the question of passenger transportation, but the transportation of property is not less important. The cost of living, so far as it is affected by the cost of food products, is to a considerable extent a problem of transportation. The fact has been repeatedly pointed out that food products may be selling at ridiculously low figures at the point of production, that the market may be glutted and that the producer may be barely able to make a profit, while, at the same time, the cost to the consumer may be high. It is apparent that the means of bringing the producer and the consumer together are defective if such conditions obtain, and
while transportation is not the only cause, it plays an important part. What is true of food products is true of all materials. If the means of transporting raw material to the factory and manufactured goods from the factory to the consumer are inadequate, expensive and slow, the cost of the product will naturally reflect these conditions.

It is essential, therefore, that in every plan of city development provision should be made for a prompt and cheap method of distribution. Thus far the railroads and steamship companies have assumed that their function ended with the provision of terminal facilities somewhere within the boundaries of the city. Not infrequently these terminals are located upon the periphery of the city and usually considerably removed from the consumer and the factory, so that products have to be transshipped and hauled long distances by wagon or motor truck. Doubtless this is a fairly satisfactory method in a small city where the terminals are not far from any part of the city, but in metropolitan centers such a plan is quite unsatisfactory.

The maintenance of terminals in the heart of the city is very expensive, but thus far sufficient consideration has not been given to the correlation of various factors. The yards are commonly large areas where only the surface is utilized. No use is made of the space either above or below the tracks, and seldom has any attempt been made to bring warehouses and factories into close proximity. There are a few instances where attempt has been made to reduce the cost and loss of time in the transportation of property from terminals to factory and warehouse, and successfully too, but these scattered instances are so few that they have not yet had a far-reaching effect. However, the movement must be in this direction; the location of factories, warehouses and shops where they are not directly connected with water and rail transportation is uneconomic and wasteful.

The distribution of food products represents a somewhat different problem. These must go to every home,
CITY PLANNING CONFERENCE

and consequently the facilities for distribution must reach every part of the city. In this connection the country trolley and the city street car line have not been fully utilized. During the night time and early morning hours these lines are practically unused. The cost of operating cars at these times would entail practically no fixed charge and the operating expenses would be small. If the country trolley roads should establish collection points at short intervals, and if the products could be brought into the very heart of the city and distributed in the early morning hours, a very valuable and useful service would be performed. The street car systems could also be used for the distribution of property from railroad centers, and thus connections established with the more remote districts tributary to every large city. Even the rapid transit lines might be utilized if found necessary during the night hours. From midnight till morning nearly every transportation facility is either out of use or very little used, and yet during that time an immense amount of property could be transported quickly and easily without interference with the passenger traffic.

In the very largest cities it will probably be necessary within the near future to provide special means for freight transportation. The situation has almost reached this stage in New York City, and propositions have already been made for the construction of subways and elevated lines for the distribution of property. It is proposed to break up carload lots at some point outside the city, such as the Jersey Meadows in New Jersey and northern Manhattan and The Bronx, and to run small cars right into the congested portions of Manhattan, extending the system as necessary. Of course such a plan is very expensive and cannot be made successful except where there is an enormous traffic and where the cost of transportation by wagon is expensive. It is evident, however, that within a comparatively short time something must be done to solve the problem in the lower part of Manhattan.
In conclusion, a word regarding the city’s control of transportation development. As long as the various facilities are in the hands of private individuals and controlled by different corporations, it is obvious that they cannot be brought into correlation and each made to serve the public in a proper way without a superior force. Each ought not to be permitted to carry out its own wishes regardless of its relations to other facilities. It is absurd that a company should locate a terminal removed from other transportation facilities and insist that the city should provide means for the distribution of the traffic which it brings to this inconvenient point. Moreover, conditions change and what is proper and adequate in one generation is often inadequate and ill suited to the demands of the succeeding generation. Consequently not only must there be public control over the first location or first scheme of development, but there must be in the hands of the city the means whereby continually the varied interests may be kept in harmony and whereby the ever-changing needs may be met by changes in transportation facilities. The city should always be in a position where it can dominate the situation.

Discussion

E. P. Goodrich, New York City:

This paper is considered epoch-making. Nothing akin to it has been presented to the public in the history either of intimate knowledge and deepest study. In consequence of transportation or of city planning. It bears evidence a discussion of it can take the line only of comments upon some of its salient features.

Early in his paper Mr. Maltbie says:

“If conscious city planning is to be substituted for accident and haphazard development, the two things must go hand in hand, that is, transportation facilities must be considered at the same time that other factors are under discussion.”
CITY PLANNING CONFERENCE

Probably the greatest problem which has been solved, or is in process of solution with regard to this particular matter, is the new subway system with its extensions, for Greater New York. In it a definite policy has been pursued of extending those lines into the suburbs further than the present demands would dictate,—the idea being that the city will change in its characteristics from a city which has been growing in one direction, namely, north and south in Manhattan, and east and west in Brooklyn, becoming rather a circular city. Mr. Bassett pointed that out very clearly in his paper.

Mr. Maltbie’s comments with regard to curves in street railroads bring to my mind a statement made by one of my former assistants who had previously been connected with the Boston Transit Commission as designing engineer. He related that during his early experience with that commission their scheme of operation was to follow the curves of all streets, going even to the extent of curving around some of the trees on the Common.

Those familiar with Boston may perhaps be able to trace the result of that policy in some of the work even as it exists today. The newer subways, however, in that city have been built only on practically straight lines.

The necessity of a limitation in the height of buildings and a diffusion in congestion is particularly well illustrated by a statement which was recently made by Mr. McAneny, who perhaps is responsible more than any other one man outside of the Public Service Commission for the solution of the rapid transit problem in Greater New York. He stated that were all of the people from the just completed Woolworth Building to be thrown upon the street by a panic or for some other reason, practically simultaneously, it would take ten-car subway trains of the express type thirty minutes to carry away the people who would come from that one building. The Woolworth Building is only one of perhaps fifty in old Manhattan. The difficulties which are involved in lower New York are thus evident, and from
CITY PLANNING CONFERENCE

what Mr. Bennett said in his paper, they are in a large measure comparable with those to be found in the loop district in Chicago.

The question of terminals is one of the active problems at the present time in many cities. It is very much doubted whether Mr. Maltbie even knew of the point which is now so significant in Chicago with regard to this particular item; but he has covered, I think, the opinion which Mr. Arnold has expressed, that an arrangement whereby through traffic is provided is better than having terminals in the center of a community.

Perhaps the best example outside of Chicago of such a condition is to be found in Los Angeles, where the interurban trains run into a station practically in the center of the city. These interurban lines are different, to some extent, from those in other cities, in several regards; over a majority of their length they run over private rights of way, and they have this building for a terminal. Perhaps an exception may be made in the case of Los Angeles with regard to one or another of these particular statements, although I am not at all sure.

Some of these conditions will also be found in other cities. In St. Louis, for example, one line has a private right of way even in the down-town district.

A most surprising condition of affairs has arisen in Newark, N. J., where the traction interests are going to spend about three million dollars on street railroad improvements and deliberately enter into the problem of constructing a central city terminal. Most of the experts who have been discussing the matter are rather surprised, and are yet to be convinced that the steps that are being taken by that particular corporation will prove to be the wisest. They now operate a through system on a sort of checkerboard, like the one which Mr. Arnold described. That is, they overlap so that the interurban lines which come into the city, for example, from the south, cross the lines which come in from the northern city limits, and
vice versa; so there is a doubling in the center of the city where the congestion is greatest. The development of this terminal will be watched with a great deal of interest.

The idea suggested by Mr. Maltbie of having the through lines distribute their riders in the congested district was worked out as far as the design of the structure was concerned in connection with one of the rapid transit systems which was actually built in Greater New York, the idea being kept in view that it might at the same time be used by suburban and interurban railroad main lines for distribution down-town of their passengers. That particular section of the subway was therefore built to accommodate the normal steam railroad passenger car.

The same idea has also been tried in Berlin, but it has not been found entirely satisfactory, as far as reports state. The difference in speed and acceleration in very many cases of the trains of the larger system do not fit in, do not coördinate well with the more rapidly accelerating and more easily stopped trains of the lighter and faster variety.

The reference made by Mr. Maltbie to the location of stations and the length of haul of passengers leads to certain interesting information which has come to my knowledge.

The last ten years has shown a very material shortening of the average haul of the surface lines in Manhattan Island, concerning which I happen to have some knowledge. Now, the average haul on Broadway, for example, is only about a mile at certain times of the day. People jump on and off the cars, and there is a constant shifting of riders. Practically nobody rides the full length of the line except as an experiment to see how long it takes, and I might add that it takes a very long time, owing to the difficulties of travel.

With regard to rapid transit systems, the general tendency is to increase the haul, the experience being that it is almost a mile longer at the present time in the existing
subway in New York City than it was three or four years ago. That means about 20 per cent increase, which is material.

As to station spacing, petitions and importunities of all varieties are now being served upon the Public Service Commission in New York to establish express stations every ten blocks; whereas they should be about every forty blocks, according to the ideas of Mr. Maltbie, from a purely economic standpoint.

Apropos of the statement of Mr. Maltbie that "persons will not ordinarily walk more than ten minutes to reach a point where they can board a transportation line," during the laying out of the new rapid transit system for New York, the city was divided into community areas, or natural centers, with the population marked on a map of each one, also the growth between 1890 and 1900, and from then on to 1910. Each community was considered a little center of its own, and the present and future number of rides per capita from those several centers were very carefully compared with other known locations. A tentative conclusion was reached on that basis; that is, it was decided that the routing as finally devised would fit into conditions as they were likely to exist with regard to the rate of the growth of those centers, and the proportional rate of growth of transportation.

What Mr. Maltbie says with regard to the relative costs of different types of rapid transit structure, especially with regard to subways, should be carefully noted, because it seems to many experts that at the present time there is a furore for subways, the value of which cannot be demonstrated by the economics of the case, except by discounting the future so far in advance that a city will have to bear the carrying charges for long periods.

The question of distribution of freight is doubtless next in importance to that of passenger transportation. In fact, it has been stated that from the average factory in lower Manhattan, it costs as much to transport the material to
the freight station as the freight rate from New York to Chicago.

With regard to the use of warehouses and freight tracks, it should be stated that the new plan of the New York Central Railroad in Manhattan provides underground subways for freight purposes, with buildings from six to ten stories, and in some instances higher, over the yard space. In the case of the so-called Thirtieth Street yard there is a double, and in some cases a triple deck of tracks. The Sixtieth Street yard is so laid out that it will hold two thousand cars, and it has been so designed that it may some day be double-decked, for freight car use.

One scheme which has been suggested for Manhattan Island contemplates the use of a certain amount of city street property, the erecting of warehouses (the rentals from which will carry the transportation costs), these warehouses being practically made into stations close together, so close together and so devised that the trucking will have to move only directly across the narrow part of the island, with practically no longitudinal transportation required. It is figured that by such a scheme the trucking costs and the actual wear and tear on the pavements of the street will be reduced to about 25 per cent of its present amount. That shows the advantage of properly correlating and working out a scheme of freight transportation.

Mr. Maltbie perhaps did not know that his suggestion for the use of passenger transportation facilities during night hours for freight use was actually discussed in some detail for what is called the Hudson Terminal System, which runs up through the main part of Manhattan Island. For various economic and financial reasons it has not been worked out thus far.

An excellent example of the general conditions cited by Mr. Maltbie, with reference to shifting of conditions, is to be found in the city of Newark, where a late change in the operation of the Pennsylvania Railroad has changed the
center, or the station at which the major portion of the people take that line. Originally the Market Street station was the center to which people desired to come from the outlying districts. Several of the street railroad franchises were made dependent upon the operation of cars to that station. Now that station is almost abandoned. Nevertheless, the franchises demand that cars must be operated to that station, with a corresponding economic waste. There is no means except by a change of the franchises themselves to obviate that condition.

As already stated, this paper is of such exceptional value that it should receive the most careful study of all those interested in those phases of city planning which have primarily to do with street arrangement and efficiency, transportation systems in all their design and workings, both passenger and freight. Mr. Maltbie deserves the thanks of all city planners for his clear analysis of these matters.

EDWARD M. BASSETT, Esq., New York City:
I believe the subject of transportation to be one of the most important in city planning, since on it depends the proper distribution of the city's population. Rapid transit as opposed to street surface transit refers to unimpeded movement between fixed stations, and is usually conducted above or below street grades. Such passenger transit becomes vital for the growth of a large city, because street surface transit takes more time than the average working-man can allow and produces great housing congestion. Rapid transit railroads of great capacity should shoot the people from congested centers to the outlying districts, where they can be transferred without extra charge to surface lines for more extended distribution. One of the saddest sights in Greater New York is to see street surface cars loaded with working men and women traveling across Brooklyn Bridge in an unbroken procession. Many of these passengers will not reach their homes in less than one and one-fourth hours. This loss of time is economic
waste and affects the productiveness of the city. It is due to lack of rapid transit in certain directions. Rapid transit is the only thing that will bring low rent and sunny homes to working people in great cities. Radial lines tend to prevent congestion.

It is a prevailing impression that elevated railroads are obsolete, but every great city of the world is building and using elevated railroads today, excepting London and Paris, where special and unusual conditions control. In the new rapid transit system that is planned for Greater New York, at least one-third of the new track mileage is elevated railroad. Hamburg has just completed a new rapid transit railroad, about one-third of which is elevated, one-third is either depressed or embanked, and the other one-third is subway. An elevated railroad can be constructed so as not to be an architectural blemish. There is no essential reason why elevated railroads should be greater defacements than bridges.

In Brooklyn we have an excellent but little known rapid transit railroad that exemplifies my meaning. The Brighton Beach line, running south to the ocean, operated by the Brooklyn Rapid Transit Company, was once a surface steam railroad, but a few years ago was depressed as to its northern half and embanked as to its southern half. It occupies a private right of way midway between parallel streets. The depressed portion lies between reinforced concrete retaining walls. The stations are models of convenience and good appearance. It has four tracks, two express and two local. The advantages of such a rapid transit road are travel in the light and air, avoidance of grade crossings, and low cost of construction, if the right of way is obtained before land is valuable. Houses which with their lots are worth $10,000 to $15,000 have been built with their rears extending almost to the retaining walls. The locality has not been injured in the least by this railroad, but on the contrary improvements have been rapid since its construction.
An interesting method of building depressed rapid transit railroads is practiced in the new municipal extensions southwest of Berlin. Streets for rapid transit are made very wide. In the center is the depressed rapid transit railroad with perpendicular retaining walls for the lower half and a natural grassy slope for the upper half. Later, when the entire street surface is needed for city use, a roof can be added and the whole street surface will have become available for vehicular and foot travel. Vienna is designing outlying branches in the same way.

ALFRED BETTMAN, Esq., Cincinnati:
I had always supposed that the New York City transportation problem was so big that anything that is said about it would be of little use to any other city; but in Mr. Maltbie's paper I was hopefully struck with the fact, that most everything contained in it is applicable to a city of the size of Cincinnati, somewhere around 400,000. The growth of the city has about reached the point where the surface system has reached its maximum capacity; and, furthermore, transportation facilities must be planned with a view to distributing the population into more healthful surroundings. The working people as a rule travel enormous distances over the surface system, going from factories which lie more or less in the outlying portions of the city into tenement house or congested districts. All the room for the better class of workingmen's homes along existing transportation highways is now taken up, and the housing problem is, therefore, intimately connected with and its solution absolutely dependent upon devising new transportation facilities.

We thought that in the possession of an old canal bed lay the means of opening rapid transit without the enormous expense of the subway, which a city of our size could not economically bear. A rapid transit scheme has, therefore, been devised which will use this old canal bed until relatively open country is reached. The open cut will be
used for a large part, although a portion of it will be covered with a boulevard. The original motive for the statute permitting the abandonment of this old canal came from a desire for a boulevard, and when the rapid transit idea grew, the boulevard enthusiasts would not permit the dropping of the boulevard altogether, and the usual compromise was obtained by an agreement to run a boulevard for a certain distance and to have the open cut further out. I was glad to find that Mr. Maltbie agreed that such a system could be operated as a portion of the existing transit system, so that for one fare the people might be transferred from the surface lines to the rapid transit system and vice versa.

In this same connection we are trying to work out a traction resettlement franchise in Cincinnati, whereby the routing service and extensions will be under the continuous control of the municipality and the transportation system can be used not only as a means for carrying people from their working places to the localities where they had been in the habit of living, but to develop new residential localities which may help to solve the housing problem.

Prof. Charles E. Merriam, Chicago:

I was chiefly interested in listening to Mr. Maltbie's paper to hear what he said about the relative merits of subway and elevated structures and to hear that in the new plan just adopted in New York one third of the system is to be elevated. I have no opinion on the subject in my present twilight zone of information, but it is for us in Chicago a very pressing and practical question. We have been assuming that the only way out of our congestion was by way of a subway and we have been wondering on what financial terms we could construct it. I have also seen plans worked out for a rapid transit system in Chicago without a subway by linking together several stub ends of the elevated railway systems and creating a comprehensive system. I hope the question of the advan-
tages of subways and elevated structures will be discussed further this evening.

CHAIRMAN ARNOLD:

In answer to Professor Merriam's request for information regarding the relative merits of subways and elevated roads, I shall not attempt to enter into much of a discussion, because he will catch the point very quickly.

The fact is that in the cities that Mr. Bassett has mentioned and others, where elevated roads are used exclusively, the topography is different from what it is in Chicago; it is not so difficult in some cases to run a railroad from the surface down into a subway, and *vice versa*, because the topography often requires this to maintain a proper railroad grade; that is, running in a tunnel through a hill and then for some distance on an elevated structure and then into and through a hill again; that is the case in San Francisco, and although not so much so in New York, there are some cases of that kind there.

But the fundamental reason which underlies what Mr. Bassett said, and as is pointed out by Mr. Maltbie in his paper, density of traffic is what determines when you should have a subway. A subway will not pay unless traffic is very dense; consequently from an economic standpoint it is advisable to have subways only in the more congested portions of a city, and then the roads should come out on elevated structures, and then as they get further out come down to the surface. In some cases there is one other step, and that is instead of going from the subway direct to the elevated it would be preferable to go to the open cut or depressed road and then to the elevated structure. Those will be the steps in logical sequence, taking the cost into consideration. Now, then, as the city grows you may have to cover up your open cut, and make a boulevard of it, as Mr. Bettman has said is to be done in Cincinnati, and as the city grows more you may have to take down your elevated structure and make an open cut of it; and then
as it grows still more you may have to cover that up and elevate your surface lines in the outside districts; and finally make a subway of that; those are the steps which a rapid transit system would take if worked to its theoretical limit.

You can spend from three to four dollars in your surface transportation system for every dollar of increased gross receipts; in an elevated structure from four to six dollars; and in a subway from six to eight dollars, so that those are about the relative proportions in investment that the community will have to support, and unless you can get traffic enough to support these respective investments it will be necessary to build the next cheapest structure, unless you tax the community in general in favor of the users of the transportation system.

GEORGE E. HOOKER, Chicago:

I feel too reverential towards this subject to attempt to speak at any length without trying to arrange my thoughts in advance. I wish, however, that every situation might be dealt with on its own basis, and not on the notion that has been adopted for some other place, although that particular device might probably be the very thing that ought to be done in that identical city.

In the second place, I think that the problem of every city should be dealt with comprehensively, and not piece-meal; in other words, that an engineer like Mr. Arnold, or Mr. Goodrich, or any other specialist who is asked to advise, should not have a council committee, or a group of business men who control a decision, say to them, "Here, we want you to give us a report on this subject or this branch of this subject of transportation in relation to this city, marking out the particular field on which the opinion is desired." In the first place, the question to be decided is, Can the subject, or this particular branch of it, be considered in and of itself? Can anybody give an intelligent opinion about that particular field without
giving its relationship to the entire field? In other words, the specialist should be turned loose and asked to report on what ought to be done in view of the whole situation.

Chairman Arnold:
I have been asked to speak about the San Francisco subways. The report on the entire transportation problem has been submitted to the people of the city and several features have already been adopted. San Francisco has an excellent law under which the district benefited by the improvement can be assessed, and legislation has been enacted by which the construction of some of the features, particularly the tunnels recommended in the San Francisco report, will be paid for in this way. Another local law has prevented the extension of surface line systems. Under this law companies accepting a franchise must agree to various difficult conditions, including wages and hours of labor. The result is there has hardly been an extension of surface line tracks in ten years. The city is about evenly divided between municipal ownership advocates and advocates of private ownership. There is now in operation a municipal street railway extending from the Market Street ferry for about four and one-half miles, and when it is completed to the ocean it will be about eight miles long. At present the road runs partially over the tracks of privately owned roads. There is no extra charge to the rider for a transfer, but the five-cent fare is divided between the private company and the city in certain proportions, depending upon the location of the transfer point. Of course the larger, or private, company has the larger system and is in a position to give greater facilities and consequently gets a larger portion of the fare.

A Member:
If the city has power to assess private property for the benefit accruing from the construction of a tunnel in connection with rapid transit lines, why does it not follow that
it should have the same power in the extension of surface lines, particularly in those sparsely settled sections where the land would be increased in value?

CHAIRMAN ARNOLD:
That suggestion was made in my report to the Public Service Commission of the First District of New York, and also in my Pittsburgh report. I am not prepared to make the statement that in San Francisco lines have actually been built and land assessed for their cost, but I do know that in sparsely settled districts property owners interested in the territory have built a line, either by private subscription or under this assessment plan, and turned it over to the United Railways Company, the private company, to operate because that company would not build the line under the restrictions of the present charter. I believe that the principle of special assessment should apply to meeting the cost of non-paying surface lines as well as to subways. In this connection it would be interesting to have some data on the rise in valuation of real estate along the line of the subway in New York as compared with the cost of the subway.

My recollection is that the rise in real estate values above One Hundred and Twenty-fifth Street in New York, taking the average value of the property for the ten years prior to the construction of the subway, then taking the difference between the actual rise in value of that property over and above what the average rise would have been, as determined by the previous ten years, was sufficient, I think, within six years after the opening of the subway, to pay the entire cost of the subway, amounting to about seventy-five million dollars. Mr. Wright, do you recall it that way?

HENRY C. WRIGHT, New York City:
In answer to that I might say that the City Club made an investigation about five years ago for the purpose of determining what the rise in the value of property had been
due to building the subway. That investigation took the value of land in 1900 and again in 1907, as indicated by assessed valuation. From the value of 1907 it subtracted a normal rise in value, the remainder it considered the rise due to the building of the subway. The values were determined, not only zone by zone as we went up the rapid transit route, but in zones between the stations, so as to see what the increase in the value of property had been in the vicinity of local stations as compared with express stations. The rate of increase was materially different in different zones and localities.

For instance, the rate of increase along the district, we will say, from Fifty-ninth Street up to One Hundred and Tenth Street, along the west side of Central Park, although in one of the best parts of Manhattan, was not as great as farther north, because there it was served by a good and efficient elevated road in operation at the time; but when the road got above, say, One Hundred and Twenty-ninth Street, or even above One Hundred and Sixteenth Street, the rise in value of property was very material. From that point northward in Manhattan and on the branch line in the Bronx the rise was very marked. The total rise in land values north of One Hundred and Thirty-fifth Street alone was nearly, twice the total cost of the subway.

Resulting from this investigation which we made about five years ago, and soon thereafter, the legislature passed a statute empowering the city of New York to lay assessments for the building of rapid transit lines. Some enthusiasm was worked up at that time, and there was considerable indorsement of the measure. Some members of the Public Service Commission, not quite a majority, were heartily in favor of such a plan for the building of rapid transit lines. Some members of our Board of Estimate, which cooperate in such matters with the Public Service Commission, also favored it, but again not quite a majority; the plan failed however. This was really due, not to the fact that there was not a majority in either one of those boards,—be-
CITY PLANNING CONFERENCE

cause I think the majority would have been there if the property owners and taxpayers had not got to quarreling with one another. The northern section of the city called the Bronx already had subways. I am speaking now about the new subways being planned. When subways were planned for Brooklyn the property owners there were very willing to pay the entire cost of the line, by assessment upon their property. The majority of the property owners along the proposed line signed a petition asking that the line be built, and stating in such petition that they would gladly pay the assessment of the cost of that line. There was a definite proposition to the city and the definite agreement on their part that they would pay their portion, that is, that they would pay for that line. But the line was not built on that plan, for when they got to considering that up in the Bronx they had already gotten some subways for nothing, the Brooklynites refused to build subways on the assessment plan. The Brooklynites said: "We want the city to build our subways and pay for them; we won't pay for them by assessment, since the Bronx has not." It was a sort of schoolboy quarrel; but in consequence of it none of the roads were built by the assessment plan. The city is going to bear the burden of the new road and it is going to be a big burden.

I want to say just a word in answer to a question here in regard to elevated roads. We have very little in elevated roads in New York of which we are proud, but this is what I want to say: No city can afford a subway. New York cannot afford one. Do you know what we are paying for the new subway system? We are guaranteeing to the present company the amount of $6,335,000, which represents a stock dividend of from 14 to 17 per cent upon the company's money invested in the enterprise. And we are guaranteeing that amount yearly for a period of forty-nine years. That dividend or rental is the amount they are supposed to earn, and they earn that on the extreme congestion which exists in the subway, a congestion pro-
duced by carrying more than twice the number the subway originally was supposed to carry; and we are basing our subway negotiations upon practically an indorsement of that congestion. That bargain means that we have got to have congestion in order to pay $6,335,000 yearly. A subway built in almost any city is such an expensive proposition that you practically are forced to have congestion in order to get enough traffic to pay the carrying charges upon it. Congestion is always a corollary of subways; I do not believe that a person can get away from that proposition. It simply forces us, if we do not want congestion and if we do want people in single houses, so far as we can give them that, to have some other means of rapid transit than the subways. It means elevated roads or depressed roads, or some other cheaper means of transit.

And now may I take just a minute more, because I want to emphasize something that I do not believe we have emphasized sufficiently here, and to the consideration of which we have not given due thought, it seems to me, and that is this question: Why cannot we bring the owners of the standard railroads to feel that the standard railroad can be used as a part and portion of our rapid transit system? Now, if we propose it at the present time they will say, "No, that is impracticable." I believe that if our engineers were put to work upon that proposition that a plan could be worked out by which the rapid transit cars could be operated, at least upon the same right-of-way as our standard railroads, and with a fare of five cents, or a fare around that figure. If such a plan were found practicable we would be able to solve many of our very puzzling problems of rapid transit, since the roads are there, and come right in to the center of the city. I wish that the owners of the standard railroads would figure out some way of bringing that about; I believe there is a solution along that line which will help us.
HENRY H. HARDINGE, Chicago, Ill.:
This congestion that you speak of, does it produce the rapid transit, or does the rapid transit produce the evil?

MR. WRIGHT:
Both. Let me explain. If you build one rapid transit road at a time you are going to raise the price of property along that single line, and you are going to raise it to such an extent that you have got to build tenement houses adjacent to it in order to realize on your land values, and so you get your congestion. Now, if you build, say, four rapid transit lines at a time, and open up four different territories, you have a different situation. You will have competing territories, and the price of your land probably will not go up to the extent that it would if you only had one road. And so then we come back again to the question of control, a very important question, which we have not discussed.

A MEMBER:
Do you know, Mr. Arnold, what they are doing in Toronto now?

CHAIRMAN ARNOLD:
I think I do. I have just finished a report for the city of Toronto. The city of Toronto is at present, under its agreement with the Toronto Railway Company, getting about fourteen per cent of the gross receipts of the company and putting it into the city treasury. The company is operating the street railway there now, but it was originally a municipally owned and operated road; but it is now a privately owned and operated road, and the company is operating the property there judiciously from a railroad standpoint.
JOHN P. Fox, New York City:

I believe we cannot say too much about the importance of transit in city planning. The tendency today is to put aside rapid transit as long as possible in smaller cities. In my opinion it should be introduced as soon as possible, and cities of 400,000 should be thinking today how to plan for rapid transit. The city grows up with a surface system and then, when it has to have rapid transit, the two systems do not coincide. In every city plan investigation today there ought to be linked together the surface system and rapid transit—a thing which has never yet been done excepting in one city plan in London signed by two well-known engineers ten years ago. I believe that the greatest city plan of modern times is in the report of the Rural Traffic Commission of London, for it contains the most far-sighted transit plan which has been produced.

The contribution of Germany to the solution of the rapid transit problem is worthy of more consideration. They have produced a type of elevated road cheaper than those in this country which can be built without any obstruction to light and air for $450,000 a mile instead of two or three millions, which is the case of the subways in this country. I have been hoping that the Germans would come over here and give us a lesson in this new type of elevated road which in Germany is regarded as most suitable for all cities.
ACTUAL DISTRIBUTION OF THE COST OF KANSAS CITY PARKS AND BOULEVARDS

INTRODUCTION

FREDERICK LAW OLMSTED

The subject of this morning's discussion forms a very important part of the general program to which the several sessions of this Conference have been addressing themselves. The whole subject of the distribution of cost in the carrying on of public improvements, as illustrated by the method of distribution which has been followed with such eminent success in the development of the Kansas City parks, is very broad.

In my opening remarks at the Monday night session you may remember that I spoke of certain broad divisions among the methods of distributing the cost of public improvements. The first division comprises payment of the cost out of the general tax income, either immediately or through the intervention of bond issues to distribute the payment of irregular expenditures more evenly over a long series of years. The second division comprises methods of distributing the cost specifically upon the owners of land especially benefited in value, either by the method of acquiring on account of the improvements the land to be so benefited by them, as in the case of excess condemnation, or else by the method of special assessment.

The method of levying special assessment taxes, for collecting the whole or a portion of the value of special benefits accruing to the owners of land as a result of public improvements, is one of the few notable contributions that
America has made to the advancement of just and efficient taxation. It has been used exceedingly little in Europe. Greater use has there been made of the alternative method of excess purchasing of land or excess condemnation, with by no means uniform success. It is a very interesting fact that publicists in some of the continental countries and in England have looked with admiration upon the American methods of collecting that particular kind of unearned increment by special assessment taxes. It is held by some European authorities upon the subject that a judicious combination of the American method of special assessment for special benefit with the European method of excess condemnation is the best way to deal with this second division of our large subject, and the combination of those two methods in some of the recent public improvements in London is a very interesting and notable step in that direction.

The use of the method of special assessment in this country is various: it has been highly developed in some parts of the country and very little developed in others. I regret to say that in my own state of Massachusetts, while the principle of special assessment for benefits was placed upon the statute books many years ago, in practice the method is not yet applied in a thoroughgoing and efficient manner. The remarkably thoroughgoing and successful manner in which this American method of dealing with this aspect of the subject has been carried out in Kansas City, especially in connection with the park system, makes this particular illustration of the subject which Mr. Kessler is going to put before you a very valuable and illuminating one.
ACTUAL DISTRIBUTION OF THE COST OF KANSAS CITY PARKS AND BOULEVARDS

GEORGE E. KESSLER

St. Louis

Underlying a succinct description of the accomplishment of the park and boulevard development in Kansas City, Mo., is history covering long and serious struggles to secure a worthy accomplishment. This is true of any genuine result in any community, and merely illustrates the need of continuous control for a period sufficient in length of time to break through the crust of public apathy and both public and private avarice. As a rule, people of every community show extreme willingness to secure fine public improvements of every character, but always at someone else's expense. The attitude toward these developments is expressed in the phrase, "Let the city do it," the average taxpayer forgetting that the individual is the city, and that all the concurrent public necessities should be carried forward in a well-balanced scheme of development and permitting none of the important elements of municipal improvement to lag behind.

The scheme of government in American cities does not, however, encourage uniform progress in all the several important needs of a community. The natural result is a condition which the people working on so-called city plans and those interested in these city planning conferences must face and alleviate.

As cities cannot be built without the lands upon which to place their necessary structures and the public thoroughfares giving access to all of these, so none of the public improvements can be made without ample means to accomplish these needs. In every community there exists a feel-
ing of resistance against enforced contributions to public good in the form of taxation, and therefore naturally a low limit, as a rule, of powers of taxation for public purposes is maintained. The extraordinary growth of urban population has therefore increased the demands upon current revenues in all municipalities usually far beyond the ordinary sources of revenue. The ordinary expenditures of the municipal government for absolutely essential functions in the safeguarding of life and property, which leave no permanent record in existence, almost invariably absorb all general annual funds. The newer communities in the United States have therefore sought a further source of revenue for the establishment and maintenance of supposedly permanent improvements, such as betterments of streets, a great portion of drainage work, and to some extent the purchase and improvement of parks and boulevards. The older communities of the country are still relying largely upon annual revenues or upon the issue of bonds based upon municipal credit, which is of course general taxation, not special.

It will doubtless be interesting to state the land tax method as applied in Kansas City, inclusive of the establishment and maintenance of the park system there.

All lands are, of course, assessable for general taxation for state, city and school purposes, these several items of general tax supplying the means of conducting the several general governments and providing for the ordinary functions of each. Out of general revenues only very little of street improvement is made, and out of general revenue or bond issues, based on general taxation, are constructed the principal trunk line sewers. All else is done in the form of special assessment against benefited land. In the case of special assessment for particular improvements these assessments lie against the lands only, in no case taking the improvements thereon into account. When a street or any public highway, inclusive of the boulevards, is to be established, the administrative boards and the legislative body
CITY PLANNING CONFERENCE

adopt the necessary resolutions or ordinances, and inasmuch as general funds are rarely available for this purpose, proceed in the local civil courts to appropriate or condemn the land necessary to establish, widen or extend these highways. The cost of the lands entailed in such procedure is then, in the same court, by the same commissioners establishing the value of the lands taken, assessed against the private lands within a previously prescribed contiguous or abutting benefit district. In the case of streets, usually abutting lands, and in the case of boulevards custom has established the frontage upon the adjoining parallel street on each side as properly within a district specifically benefited by the establishment of such highways. Later, after the properties have been acquired, sometimes at the time of acquisition, the grades upon which these highways are to be built are established, and should there be violent changes of ground surface, thereby producing possible injury to the abutting private property, opportunity is given to claim damages for this element, and the cost thereof is assessed in the form of special land assessment against the properties in the benefit district.

Subsequent to the disposition of the question of damages due to the street grade or changes in ground surface thereon, the highway is graded to its established grade and the cost of this work assessed in proportion to the value of the property assessed and against the lands forming the normal frontage on the highway so improved. After the street has been brought to the proper planes in accordance with the established grades, and all subsequent to the proper legislation by both the administrative and legislative bodies, the city proceeds to improve these highways by first establishing the necessary drains, discharging these into the established sewer system or creating new sewer districts. The cost of such drainage is assessed against the lands within the area to be drained, on the basis of cost in proportion to its area.

The city then further proceeds to build the curbs, the
street pavements, the sidewalk pavements, and assesses all of these elements against the abutting properties.

The city may, but does not as a rule, further assess the abutting properties with the cost of establishing the lawns on the sidewalk spaces, but does assess the cost of shade-tree planting and care upon the abutting property in the case of the streets. In the case of the boulevards the Park Commission, out of its funds, provides for the cost of tree planting and the lawns on the sidewalk spaces.

The city does not assess for the establishment of water mains, and the installation of lighting equipment is an incident to the general contract for lighting paid for out of the general revenue.

The park and boulevard system is administered by a Board of Park Commissioners, one of several administrative boards, and charged with the particular duty of creating and maintaining this system. It has the exclusive power of selection, no powers of legislation, but exclusive powers of administration.

Beginning twenty years ago to plan, under the writer's direction, for a comprehensive scheme of this class of improvement, actual acquisitions were not accomplished until approximately 1896. Since that time to the middle of April, 1913, the close of the fiscal year, the following general expenditures have been made on this system:

### SPECIAL ASSESSMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition by condemnation, all</td>
<td>$6,115,187</td>
</tr>
<tr>
<td>purchases having been made</td>
<td></td>
</tr>
<tr>
<td>through exercise of the power of</td>
<td></td>
</tr>
<tr>
<td>eminent domain</td>
<td></td>
</tr>
<tr>
<td>Boulevard improvement by tax bills</td>
<td>1,412,473</td>
</tr>
<tr>
<td>Boulevard grading damages</td>
<td>24,723</td>
</tr>
<tr>
<td>Park District maintenance</td>
<td>1,863,906</td>
</tr>
<tr>
<td>Boulevard maintenance</td>
<td>78,730</td>
</tr>
<tr>
<td>Miscellaneous collections, accruing</td>
<td>120,000</td>
</tr>
<tr>
<td>through special assessments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$9,615,019</td>
</tr>
</tbody>
</table>

Carried forward .......................... $9,615,019
CITY PLANNING CONFERENCE

GENERAL TAXATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brought forward</td>
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</tr>
<tr>
<td>Bond issue</td>
<td>$500,000</td>
</tr>
<tr>
<td>Apportionment from annual municipal revenue</td>
<td>$1,853,000</td>
</tr>
<tr>
<td>Vehicle tax</td>
<td>$147,874</td>
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<tr>
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<td>$64,009</td>
</tr>
<tr>
<td>Aggregating</td>
<td>$11,679,902</td>
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</tbody>
</table>

Special assessment .................................. 82.3 per cent
General tax ........................................... 17.7 per cent

100 per cent

To understand perhaps more clearly the general scheme of administration and financing, it should be understood that Kansas City, Mo., now a community of some 275,000 people, is east of the line dividing Missouri from Kansas. In Kansas City on the Kansas side, known as Kansas City, Kan., there is a population of some 100,000 in addition. Kansas City, Mo., and the city of St. Louis are the two constitutional cities of the state, each having its own charter and each having the exclusive power of charter amendment with reference to local affairs and the administration of local laws. Therefore Kansas City, Mo., is alone responsible, and through its consent alone has the successful work there been accomplished. Among other administrative boards the Board of Park Commissioners has exclusive charge of its park and boulevard operations.

Like most other cities, the Park Department found itself faced with the question of waiting for years, perhaps never accomplishing anything, if it relied entirely upon the doling out of the current annual revenues or upon possible bond issues, which the public in that city does not generally favor. In this instance the Park Department had no hope of aid from current revenue, and the debt-making power had reached its limit for the purchase of waterworks.

[144]
There remained only reliance upon private generosity or special land assessment. In applying, therefore, the principle of benefit assessments for the creation, improvement and maintenance of this park system, there were established certain assessment districts used as units of taxation for this purpose, and within each of which the private lands were directly assessed, presumably in proportion to the benefits derived by these through the purchase of land required for the several public improvements.

If a park or parkway, defining the latter as a parked highway, was sought to be purchased, then, after the proper legislation had been adopted, the circuit courts and commissioners under the judges of the local civil courts, hearing claims for values for the properties sought to be taken, and also claims usually in resistance of assessment to pay for these properties, found the values in detail and in aggregate of the properties taken under such procedure, and distributed, in accordance with their judgment, the cost of this acquisition against the private lands within the park district in which the park was to be located. Such assessments become liens against the private lands, subject to sale in the event of failure to pay at given times. Where the assessments were likely to be large opportunity was made to pay the individual assessments in installment periods, usually of twenty years. At no time has the community at large been required to pay any portion of these purchase costs.

In the case of the boulevards there was practically the same procedure, and while under a different administrative board the streets were also established in the same manner, except that in the latter case no installment payment periods were permitted.

For the purpose of improving and maintaining these parks and boulevards, and in the absence of sufficient current revenue appropriated by the legislative body, there was established a power to assess annually within the limits of each park district and for the sole benefit of that park
district every parcel of private land within that district, at the same time and to the same effect as the same lands were charged with the annual ordinary taxation, but in addition to and beyond the constitutional limit for general purposes. This created in each park district an annual fund for improving and maintaining the parks and boulevards within those districts. The real benefit of the division of the city into permanently established park districts is to create within those districts the annual revenue above described. Such park district maintenance funds are available for the improvement and maintenance of all the properties within their respective districts under the jurisdiction of the Board of Park Commissioners.

It was found desirable, in addition to the district maintenance funds, to assess annually, also in the form of special assessment, a low maximum charge against the abutting private properties upon boulevards and parkways for the exclusive purpose of maintenance work upon the boulevards or parkways along which these assessments were made. Inasmuch as a low limit was finally placed upon the powers of the city to make the annual maintenance levies, the Park Department was given, for the benefit of its park districts, all of the vehicle licenses collected by the city. This in turn is apportioned in accordance with the annual revenues or the established valuation of the lands within the several districts.

One difficulty of the annual park district maintenance levy is that the actual revenue then depends upon the assessed valuation of the lands within these districts. In Kansas City this is approximately 50 per cent of the actual values of the properties. The older park districts naturally contain the high-valued business areas, and therefore obtain ample revenues for improvement and maintenance within their limits. The outlying and intermediate districts, having comparatively low values, obtain insufficient funds to properly improve and maintain the lands and the highways within their limits. Therefore there must each
year be obtained from current general revenues a sufficient apportionment to the Park Department for the expenditures necessary in these districts beyond their local district revenues. This becomes particularly true of the great outlying park, the entire cost of improvement and maintenance of which must necessarily be borne out of the municipality’s current revenues.

In effect this has placed the Park Department in Kansas City in a semi-independent condition with reference to its funds, and has made it possible to accomplish results that would have been entirely out of the question under any other financial system in that city.

In practice this entire procedure is an amplification of the theory of single land tax. It certainly was not accomplished as a matter of choice but as a matter of necessity, and inasmuch as no properties had been acquired under any other system, the tax-paying public finally acquiesced, and is constantly urging further and even more extensive development in order that the entire city may obtain commensurate benefits through improvement in every section. While it undoubtedly has become a serious burden upon the private lands of the entire community, yet these burdens have been equably distributed, and since all lands contribute there has been no reasonable objection. Its distinctive advantage in that city has been a resultant stability of land values reaching very far beyond the values for residential purposes alone, and has very strongly tended toward proper segregation of the several sections of the city for these several uses in their distribution for industrial, commercial and residential use, and made possible what otherwise would not have been accomplished.

Discussion

D. J. Haff, Esq., Kansas City:

Mr. Kessler has given a clear and pithy description of the problems which confronted Kansas City, Mo., in its
efforts to secure a park and boulevard system and of the methods or ways and means adopted by that city to solve those problems, when a small number of Kansas City's most progressive and public-spirited citizens, in the year 1892, organized a municipal improvement association, with the definite purpose in view of finding some way to overcome what appeared to be, from that viewpoint and from the then existing state of that city's development, a hopeless ugliness which would apparently yield to nothing less than an expenditure absolutely insurmountable from the standpoint of the city's resources or its constitutional power of contracting debt for many years to come. In the first place, the debt-making power of the city under the constitution of the state was limited to five per cent of the assessed value of property for the purpose of taxation, which, under the methods of assessment in force, limited the valuation of property for assessment to 40 per cent of the actual value of the property, in theory, and nearer 20 per cent of its actual value in practice. And, in the second place, the debt-making power of the city had been exhausted and more, in paying for the waterworks system, built by a private company, which the city had bound itself to reimburse at the termination of the franchise period, which under the contract had been decreed a judgment debt of the city.

If, therefore, Kansas City was to have parks and boulevards, some means other than those ordinarily adopted by cities must be found for financing the project.

Her citizens were already acquainted with the principles and the efficacy and the fairness of the system of special taxation. In no state of the Union had this system been developed more intelligently, or applied more extensively than in the state of Missouri. It was the method customarily in force in all the important cities of the state, as well as in Kansas City, in the construction of sewers, in the opening and improving of streets and highways, and the protection of land from flood by the construction of
levees, and in the construction and maintenance of drainage systems, both urban and rural. As boulevards and parkways were only a more elaborate form of streets, where the principle of landscape art was applied and the purpose of public recreation recognized and adopted, it was a natural step in the development of the principle to extend its application to the acquisition and improvement of lands for park purposes.

Mr. Kessler has shown how the idea was adopted and worked out by dividing the territory of the city into several districts for park purposes, known as "park districts," which should be unit areas of taxation. The first law, adopted as a charter amendment in 1892, divided the entire city (at that time comprising thirteen square miles) into three park districts, which have since been increased, as the city limits were extended from time to time to eight park districts, with a total area of sixty square miles, or an average area of a little less than eight square miles each. Over these districts the law gives the Board of Park Commissioners (originally composed of five members, but now having but three members) original and sole jurisdiction for the purposes of planning and originating all park and boulevard improvements, of carrying into effect the ordinances of the city for the establishment and acquisition of parks and boulevards recommended by the Board, and for the administration of those parks and boulevards after the same have been acquired or established.

As Mr. Kessler has pointed out, every acre of land which has been acquired in Kansas City for park and boulevard purposes has been established or taken by the power of eminent domain, put into operation by resolution of the Park Board, carried into effect by ordinances of the city and enforced by the decrees of the courts.

The law was adopted in the form of an amendment to the charter, submitted by ordinance of the city, and approved by popular vote; and under this law, and solely by the method of special taxation — that is, by the assess-
CITY PLANNING CONFERENCE

ment of lands, exclusive of the improvements thereon—Kansas City has acquired and improved over two thousand acres of park lands and fifty miles of boulevards and parkways.

Two points should be emphasized as having been proved by the experience of Kansas City. They are:

First, that special assessment or taxation is the most equitable method of acquiring and improving lands for park and boulevard purposes; that by this method the burden is more nearly imposed upon the property benefited than by any other method of taxation.

Second, that this method, and the plan and machinery that were devised to carry it into effect, has proved to be the best, if not the only method of securing for any city a symmetrical, well-balanced and harmonious system of parks and boulevards, for the following reason: that the division of the city into park districts as units of taxation prevents that jealousy and contest between different sections of the city which always develops over the expenditure of money for park purposes which has been raised by general taxation or by the issue of bonds.

By the method of special taxation and by the charter of Kansas City as it was adopted, the Board of Park Commissioners were required to establish at least one park in each park district. By this method, also, each park district being a taxing district and a benefit district for raising funds and for the payment of all park and boulevard improvements that were to be made in that district, the attention of the property owners in each district was directed to the improvements projected or proposed by the Board for such district, and as they were not assessed to pay for the improvements in other districts, they were naturally not interested in opposing them or in advocating them; while the Board of Park Commissioners, having jurisdiction over all the districts and being obliged to plan not only for each district but for the entire city,
naturally had a free hand and an incentive to make comprehensive plans for the whole city, and to make those plans symmetrical and harmonious as a finished project.

The result in Kansas City was, in the very beginning, that the Board of Park Commissioners planned in advance a system of parks and boulevards with reference to the city’s topography, the density of its population in each district, the value of the property to be taxed, the artistic effect of the whole and its service to the people not only in each district but of the city as a whole. And the result has been, so far as my observation goes, that no other city in the United States, or anywhere else, has a system of parks and boulevards so complete and connected, which have been planned with a view of improving the natural advantages of the territory embraced within the city limits.

J. C. Nichols, *Kansas City, Mo.*:

Kansas City had increased her tax levy just as high as the law would permit, had issued bonds up to the bonding limit, and had exhausted every other source of raising money, so that when it was proposed to establish a park or boulevard system the only way to do it was to ask the land owners to pay for the land to build the boulevards and parkways, to improve them and then maintain them, and I think if there was anything further that could be done in connection with the parks and boulevards Mr. Kessler would certainly have had it done by special taxation. We have voted on bonds a great many times in Kansas City, and they have practically all carried except bonds for park purposes. It is certainly a remarkable tribute to the special assessment system that property owners themselves are unwilling to ask future generations to pay for parks by bonds, but prefer to assess themselves. The park commissioners have never attempted any work which has failed; they have never wanted anything that they have not been able to get. There has never been a case reversed in the supreme court, and everything has
been just as the city wanted it. From the viewpoint of the city, at least, the special taxation system is successful. The only thing that is left to consider is whether or not it is fair to the fellow that pays the bills. I have been rather struck by the absence of that consideration here at the Conference. Certainly we ought to know, approximately at least, whether the special assessments for parks and boulevards are justified by the increase in value of the property which is assessed for benefit.

There have been made in Kansas City very systematic investigations of the increase in value of property in benefit districts as compared with those parts of the city which were not included in the benefit districts. These reports have all arrived at the same result, namely, that the land values have increased more than the cost of the parks and boulevards. I think that this is generally conceded by all real estate men in the city. The most attractive headline that you can run for an advertisement is "on a boulevard" or "near a boulevard," and real estate men and large property owners have become so convinced of the increase in value of their lands owing to the park system that many of them are asking the park board to lay out a boulevard through their land and assess the cost on them. Within the past three or four years the people with whom I am interested have deeded the city more than half a million dollars worth of land for park purposes so as to avoid the delay of condemnation.

I am not sure that Mr. Kessler fully emphasized the peculiarities of the Kansas City special assessment method. It is the combination of a special tax system with park certificates based upon the special assessment which furnishes the money. The certificates bear six per cent interest and have always sold above par. A benefit district can be established of any size. It may extend only a block from the boulevard or park, or it may be the entire park district, or even, in some cases, it may extend beyond the limits of the park district, over the whole city, but
in any case the assessments which the condemnation jury make on the land give the security for the sale of the park certificates. They are really a species of local bonds and can be paid in installments, which I think is a distinct advantage over the ordinary bond.

It seems to me that the advantages of the special taxation system can be enumerated as follows: It is simple and rapid; there may be five or six proceedings going on in the city at one time. It is now becoming the practice to accept the awards of condemnation juries, and certainly appeals have been very infrequent.

It distributes the financial burden fairly. It enables progressive portions of the city to develop their park and boulevard systems as they wish and not be retarded by other portions of the city.

It is a non-political system. All the money collected in a locality is spent by the park commissioners in that particular district. There can be no charge of log-rolling or vote-swapping in order to gain advantages.

It prevents jealousy between the different parts of the city. Everybody knows that when a park or boulevard is provided for a district nobody else is paying for it but the people of that district.

It makes people appreciate their parks and boulevards more. I believe there is no city in the country where the people as a whole take so much interest in their parks and boulevards, even to the smallest cottage owner, who feels that he is part owner in the parks and boulevards in his own district, since he helps to pay for them.

It encourages stability in values. Our city has never had any extremely high-priced residence property nor any abnormally low-priced residence property. I attribute this condition largely to the distribution of the parks and boulevards so generally over the whole city.

The special assessment system, to my mind, amounts to a single tax. I personally think this is unfortunate and that it would have been much better if a tax had been laid
on both lands and improvements, and our land tax was really a compromise. However, land owners have paid the bills and still seem willing to pay them.

One of the difficult questions is the proper division of the city into park districts. When we started with three park districts, it was an easy matter to set the bounds of each district so that it would have its proportion of high-priced business property. But the newer districts which we have more recently added have contained comparatively low-priced residence property, and this retards the development of their park and boulevard system. It would hardly be equitable to add one of these outside districts to an old district which has already paid for its park and boulevard development. This difficulty is a real one in spite of the fact that land in these newer districts is generally less expensive and will probably receive greater benefit from the establishment of the park system.

DR. HENRY JAMESON, Indianapolis, Ind.:
Whatever may be said in detail as to the righteousness of the special assessment method of taxation, for park purposes, it has made it possible for cities in the Central West to accomplish something in the way of development which seemed hopeless by any other method. In Indiana there is a constitutional limitation on the right to issue bonds, so when the question of making parks by a bond issue came up we found ourselves against a solid stone wall. On the other hand, the raising of money by general taxation was impossible because we had a legislature that would limit the general tax levy. The special assessment method therefore was the only one left to us, and any discussion of its merits or demerits was made unnecessary.

It may be well to call your attention to a few reasons that made this way of raising money especially applicable in Indianapolis. It had long been recognized that drainage and sewage were proper subjects of special benefits. It so happens that we require for our best park develop-
CITY PLANNING CONFERENCE

ment in Indianapolis the joining of it with that of protection against flood, so we have the particular merit in the application of the special assessment to park development of its being already tested. We felt therefore absolutely certain that courts would sustain the application of the special assessment method for the park development, since there would be so involved in it the question of protection against overflow of our streams. I believe thoroughly in the special assessment system because it is as equitable a method for raising the funds for park development as can be found. I believe in it also because of its educational feature. The American citizen is quite willing that the authorities should issue bonds in an indefinite amount for future generations to pay, but under the special assessment method the citizens feel that they are paying for the work and have a very real interest in it.

If the special benefit plan had no other merit, it would be amply justified because it is teaching the people to pay directly for what they need. They are coming to regard these payments as investments, not as taxes. They are beginning to appreciate that the park lands are their property, something in which they are directly interested, and that they cannot expend their funds in a better way.

L. A. AULT, Cincinnatı, Ohio:

A dozen years ago the entire park area of Cincinnati embraced somewhat over four hundred acres, and lay principally in two properties. At that time a few men interested themselves in an effort to have a comprehensive plan developed for an additional park system. There was little or no public sentiment in favor of such an effort, various attempts along this line in the years passed having failed, and a feeling of general apathy toward a system of parks prevailed. After a couple of years of effort a Commission of five men was named by the Mayor, duly authorized by Council, to develop such a plan, and the sum
of $15,000 appropriated for the work. Mr. George E. Kessler, the park architect and engineer of Kansas City, which topographically was very similar to Cincinnati, was engaged, and in connection with the Commission developed a plan in the course of eighteen months that was approved by each branch of the city administration and endorsed by every civic organization in the city. Whereupon this Commission were thanked for their efforts and dismissed.

In Ohio at this time all legislation was general, and it required a great deal of effort and time to secure from the legislature at Columbus a bill enabling the Mayor to name a Park Commission of three men to serve one, two and three years respectively, and thereafter three years each without compensation, enabling the Kessler plan to be developed if and when the city provided funds. We possessed no power of carrying out the plan by benefit assessments—had no power to establish park districts, as in Kansas City, for example—but had to raise by regular bond issues, the question being submitted to the people, such funds as were required. Our first attempt in this line failed, but in two later efforts we have obtained $1,750,000, to begin the work, and this, together with various donations that have been made by public-spirited citizens, have enabled us to acquire approximately one thousand acres additional of ground in outlying districts, to build and manage a dozen or more playgrounds in the congested districts, and we are now building a parkway of about two and one-half miles in length that will connect some of the newly acquired properties. We hope to secure about five hundred acres of ground additional, and when these properties are properly connected, which should be accomplished within the next eight to ten years, I believe Cincinnati will have one of the most perfect park systems that there is in the United States, and one for which no one will need to apologize to any of you when visiting that city.

Cincinnati has been stagnant in many respects for a
CITY PLANNING CONFERENCE

long period of time, but a new spirit, not only in connection with park work, but with all public work as well, seems to have taken hold of the city generally, and we are very hopeful of the outlook. The various amendments to the constitution for the state, recently adopted, make it possible to apply the direct benefit assessment and other plans in the near future.

ANDREW WRIGHT CRAWFORD, Esq.:

I wish to ask Mr. Kessler how the assessments are laid — that is, what proportion on abutting property and what on property farther away.

Mr. Kessler:

The Kansas City condemnation juries, of course, have had that question up interminably, and each jury (or commission) solved it for itself in its own way, sometimes assessing very heavily against the immediately abutting property and graduating on arbitrary lines as they went farther away until they reached the border of the benefit district. In other cases they placed an arbitrary assessment against the immediately abutting property and the remainder of the assessment on the valuations of lands as they appear of record for annual taxation. It seems to me that they have worked out in each case an equitable assessment plan. There were incongruities, of course, but the presumption must always be that the benefit reaches even beyond the limits of the district established; and while you may not go beyond that limit, still there is a benefit even further on. It has apparently settled down there now to a graduation on arbitrary lines based upon distance, because they are very largely of equal valuation. For instance, on the abutting property nearly all of the property has an equal value, and on the next parallel street the property has an equal value and so on.

It has been our experience that the property on a street intersecting an improvement of the character which
we are considering, or of any character, receives a very much greater benefit than the property on parallel streets to that improvement. Therefore, wherever these conditions prevail, the greater assessments are levied against the property on the streets that intersect rather than those that parallel the improvements.

E. W. Robinson, Denver:
I would like to ask Mr. Kessler whether there has been any criticism of the special assessment in Kansas City on account of the fact that the seller of the property has found it necessary to pay the tax in full.

Mr. Kessler:
From forty to fifty per cent of these assessments has almost invariably been paid without using the installment method. Then, as the property which was assessed on the installment plan was transferred, the purchaser almost invariably insisted, after the first struggles were gone through with, that it was due and therefore should be paid at the time of sale, and that has become the habit with us. There is little objection to it, because usually a man is glad enough to pay the tax when he sells his property. After twenty years' experience with this method it has been found that special assessments are paid more quickly than general assessments. A great majority of the deferred payments have been made in twelve or thirteen years, but of course there will always be some which will run the full twenty years.

Dr. W. W. Andrews, Calgary, Canada:
May I ask what is the effect of the Kansas City assessment on the housing of the laboring classes?

Mr. Kessler:
Kansas City has never had the need of facing the terrific congestion that comes in larger cities, but the establish-
ment of wide roadways and the purchasing of lands for parks and playgrounds have really and literally prevented the development of congested sections. They have produced uniform residential areas of modest character and their influence has been toward the proper segregation of lands for different uses.

ROBERT GALLOWAY, Memphis:

During the past two days all the speakers have been from large cities, and all the arguments have applied chiefly to large cities. I am glad that we are down to cities of about 150,000. I have been chairman of the Memphis Park Commission for twelve years. We started the park work the very day that Kansas City started hers, and went up to Kansas City to try to learn something, but we found that they were adopting the cash principle in the purchase of park lands, which was impossible for us (although our city had adopted the pay-as-you-go principle) with a debt of $7,500,000 as a heritage from war times. We had compromised this debt at fifty cents on the dollar, and pledged ourselves not to issue another bond of any character until this three and three-quarter million issue was taken up. We had no parks worth speaking about.

Our first step was to get an option on some property, and in order to pay for it the legislature in 1900 authorized us to issue a four and one-half per cent twenty-year bond for $250,000, known as "not a general liability bond," of the city of Memphis, the purchaser looking to the park land to be purchased, the city only guaranteeing the interest. Bond buyers did not like bonds of this character. However, an examination of the lands and city by a Chicago expert enabled us to sell the bonds at $98 net. We immediately closed for 335 acres on the eastern border of the city, and about 500 acres on the south line of the city. Since this time the war bonds have been settled, and we issued a general liability four and one-half per cent fifty-year bond of $500,000 for completing the
purchase of land and improvements. This issue furnished the means to complete our park system to date, comprising eleven parks in different parts of the city containing about 900 acres, not including twelve miles of splendid parkway drives, well paved, connecting up the parks, a free Zoo and playground, second to none. Our total park indebtedness to date for all park purchases and improvements is $750,000. Conservative assets over $7,000,000, increase in value caused by rapid growth of city and increase in real estate values.

My proposition is, there is no good reason why a young growing city should not incur reasonable indebtedness for park lands while lands are cheap and let posterity pay the bill. If judiciously selected, they will surely increase in value and give a struggling town a system of parks. One case in point: A party owned a piece of real estate valued at $85,000, which we wanted for a park. He did not want to sell, was holding for his boys. His taxes and other expenses were more than he could stand. We gave him a note (no bonds) for $85,000 payable twenty-five years after date with six per cent interest, the taxes being abated. He receives as interest $5,100 per year net, and secures the fund for his boys; we get the park for a rental of $5,100 per year; our people get the enjoyment of the park now, and we are fully satisfied it will sell for twenty times its cost in twenty-five years.

What I have said is as a suggestion to some of our young cities as to acquiring park property.

Frederick L. Olmsted:

What Mr. Galloway has been describing involves the purchase of land for parks on a mortgage for the whole amount, which mortgage is secured only by the property and is to be paid off, if at all, by selling the whole or a portion of the park. Even if land can be bought on such terms it cannot be called conservative financing.

Where park funds can be obtained only in small annual
amounts and more land is plainly required than it is possible to purchase with the funds available in a single year, there are strong reasons in favor of making the purchases all at one time on credit, even if the borrowing has to be done in queer ways. If the lands required for a park are bought piecemeal during a series of years, the first purchases increase the value of the adjacent property which must be subsequently taken in order to complete the full plan. In acquiring mountain parks for Denver it is proposed to lease property for park purposes with a long time option to buy at a fixed price plus interest, the payments on account of the lease being applicable to the purchase in case the option is exercised.

Mr. Kessler:
The method of securing the purchase price of park property by mortgaging the property acquired is similar to the practice in cities of Indiana where properties are taken over under a lease and installment payments are made annually plus the interest. Final conveyance of the property may be made upon final payment. Of course this is just another way of mortgaging the property.

Mr. Crawford:
Has not this method of lease been attacked by the courts? If each annual payment goes for the purchase of property, it would seem to imply that there was a municipal indebtedness and that consequently the principal of that indebtedness should be reckoned in making up the debt limit of the city.

Col. David N. Foster, Ft. Wayne, Ind.:
Just the point that Mr. Crawford raised has been settled in Indiana. The city of South Bend took a lease of a building, which was being put up by private parties, with the privilege of buying it at any time during the term of the lease. The right of the city to do this was con-
tested, but the supreme court of the state held that the city could lease property with the privilege of buying it at any time during the term of the lease, and that the price for which the property was bought should not be included in reckoning the amount of municipal indebtedness.
(1) **Conditions of the Problem**

The tract is assumed to be located on the outskirts of a growing city, about four miles from the center of the city, but entirely within its corporate limits. This city is assumed to have a population of approximately 500,000.

The tract is so situated that it will be reasonable to apply to it the following assumptions upon which the recommendations and predictions of the several plans are to be based:

(a) The rate and direction of growth of the city is assumed to be such that the tract when fully developed with streets, etc., will be absorbed by the demand for building lots within a reasonably short period and at prices sufficient to repay the original investment in the land of $2500 an acre, together with the cost of development, interest, taxes (15 mills of assessed valuation at full value), selling cost and a fair profit, and that within ten years it will be built up almost to the full extent contemplated by the plan.

(b) It is assumed that the lands required for the streets and for any parks or other public areas which may be shown upon any plan submitted are to be dedicated without cost to the city; and that the remaining lands (salable lots) are to be charged with the cost of said land (at $2500 per acre) and with the cost of all improvements proposed by the plan for such streets and other public areas, including branch and main sewers, but excluding
the installations of those public utilities which are generally paid for out of indefinitely continuing charges for service, such as water-supply, gas and electricity.

Separate storm-water and sanitary sewers are assumed, and in order to simplify the problem an average cost for the entire sewer system is to be assumed at the rate of $5 per foot of street containing both sanitary and storm-water sewers and $2.50 per foot of street containing only a sanitary sewer. Both sanitary and storm-water sewers are to discharge from the district into outfall sewers at the location and elevation indicated on the map. The soil of the entire tract is assumed to be gravelly and free from rock that might require explosives to remove.

It is assumed that street lamp posts (electric) and fire hydrants of ordinary cost and at ordinary distances apart will be installed by the city without cost to the owners of abutting property beyond their share of the general annual taxes. It is assumed that the charges for electric current, both to the city for street lighting and to property owners for private use, and also the charges for telephone service, are to be normal charges, predicated upon a normal cost for the installation of wires, such as is usual in suburban districts where overhead wires and poles are used; if the plans call for a more costly installation of wires, the extra cost beyond the normal cost of ordinary overhead wiring is to be charged against the land as part of the cost of land development.

(c) The demand is assumed to be mainly for the erection of dwellings and for such other purposes as are normally incidental to such a development — retail stores, local places of amusement, schools, churches, etc. Approximately half of the population is to be engaged in or dependent upon work in near-by factories. The majority of families will occupy dwellings commercially rentable at from $15 to $30 per month, while there must also be provision for some families who cannot afford to pay $15 a month, and for a considerable minority who will
CITY PLANNING CONFERENCE

demand residences rentable at from $30 to $100 a month or occasionally even higher.

(d) In order to avoid confusing discrepancies in the legal conditions which the various plans are devised to meet, it is proposed to assume, unless otherwise stated, that developments on private property in each tract are to be governed by the requirements defined in the Building Code approved by the National Board of Fire Underwriters and in the Model Tenement House Law, modified to a Housing Law.

(2) Definition of Plan Required
The plan for the development of the tract is to be presented in the form of drawings, as defined below, accompanied by a typewritten statement covering such points as cannot be properly set forth on the drawings. It is proposed to confine the plans to a general plan drawn at a scale of 200 feet to the inch and a sub-plan or plans showing cross sections of streets and outlines of typical houses drawn to a scale of 16 feet to the inch. Building lines must be shown on the general plan. Outlines of building masses, such as may be expected to develop, will add to the interest and intelligibility of the general plan, but they are not required. The entrant must, however, submit outlines of typical houses of the various kinds he proposes at a scale of 16 feet to the inch, showing the size of lot, the size of house and its location on lot, and amount of free space around the house and the location and size of other buildings on the plot, if any. He must also give in his description the price of the lot, the cost of the houses and other buildings, and the amount for which the property may be rented, also a selling price of same. Plans are to bear the name or mark of the designer or designers. The plans are to be presented as black line prints; they may be rendered in flat wash in color. Size of plans is to be $28 \times 40$ inches between border lines. The general plans should include:

[ 165 ]
CITY PLANNING CONFERENCE

(a) Original topography shown in contour intervals of five feet.
(b) The lay-out of streets and proposed public properties.
(c) A separate sheet showing the location of all sewers and appurtenances including the outfall. Sizes and grades may be shown at discretion of designer.
(d) Development of private lands in accordance with the general plan and with such desirable control as could properly be exercised by ordinance or statute under the most favorable constitutional limits in the United States.
(e) Recognition of such control as might reasonably be expected to be exercised by enlightened and public-spirited land companies or other owners of real estate through restrictions in the deeds of lots with a view to increasing the salable value of the tract as a whole.

(3) STATISCAL STATEMENT
A statistical statement is required covering at least the following points: Total area of land involved in the scheme; area of land dedicated by the plan to streets; area of land dedicated to other public uses (by classes) if any, area remaining in salable lots; cost of each of the above areas at the average cost of $2500 per acre; cost per acre and per square foot of salable lots exclusive of cost of development (obtained by dividing the total land cost including streets, etc., by the area of salable lots after deducting area of streets, etc.); estimated cost of improving streets and other public lands by units and total; average cost of said improvement per acre and per square foot of salable lots; estimated selling costs and carrying charges, estimated total cost of lots ready for building; estimated average price at which lots could be sold with expectation of a fair profit; expected range in actual prices of lots from the cheapest per square foot to the dearest, according to location.
(4) **Data Furnished**

Each participant in the study will receive:

(a) Two copies of the topographical map of the tract with key map showing its relation to the city.

(b) A copy of the Model Housing law.

(c) A copy of the Building Code recommended by the National Fire Underwriters, New York.

(d) A circular entitled Data for Proposed Study in City Planning undertaken by the National Conference on City Planning.

(5) **Purpose and Nature of Study**

The purpose of this study is not that of a competition undertaken as a means of selecting a design as being upon the whole the best solution of a single complex problem. It is rather intended as a coöperative enterprise undertaken as a means of bringing together in a form which will facilitate close comparison a variety of methods and devices, all usable in city planning, each having its own advantages and limitations. And as the problem outlined is complex, calling for the application in its solution of expert knowledge in the fields of engineering, architecture, landscape architecture, sociology and business, it is permissible that two or more members of the Conference may collaborate upon a single plan.

(6) **Date of Completion**

The final plans with brief descriptions must be presented on or before March 4, 1913. The plans are to become the property of the Conference and will be exhibited at the next annual meeting of the Conference. Arrangements will be made to have participants in the study meet each other and the members of the Committee to discuss plans in process from time to time during the winter. The first meeting for this purpose will be held on November 22, 1912, at the City Club, 55 West 44th Street, New York City.
CITY PLANNING CONFERENCE

The committee in charge of the proposed study consists of the following members:

B. A. HALDEMAN, Bureau of Surveys, City Hall, Philadelphia.
GEORGE B. FORD, 347 Fifth Ave., New York City.
JOHN M. DEMAREST, 47 West 34th St., New York City.
JOHN IHLDER, Secretary, 105 East 22d St., New York City.

Address all communications to Flavel Shurtleff, Secretary of the National Conference on City Planning, 19 Congress Street, Boston, Mass.

REPORT OF THE COMMITTEE ON CITY PLAN STUDY

JOHN NOLEN
Cambridge, Mass.

The Committee on the City Plan Study was appointed at the last National Conference on City Planning, which was held in Boston in May, 1912. The purpose of its appointment was to secure for this Conference, now in session in Chicago, the results of a year's study upon a general plan for a given tract to which definite assumptions were attached. The study was to express itself, not in words and description, but in plans, each plan to be accompanied by a statistical statement. While the goal of our so-called city planning movement is the actual improvement of cities, the translation of plans into facts, as the Chairman has well said, one of the big steps toward that goal is the substitution of plans for mere talk about plans or about the subjects with which plans deal. Thus the attempt to prepare plans it was hoped would show to the participants in the Study themselves the character
CITY PLANNING CONFERENCE

and scope of the problems involved, and would give to the public the benefit of such solutions or partial solutions as might result from their efforts.

It may be well to repeat here that the main purpose of this Study in City Planning was not that of a competition, undertaken as a means of selecting one design as being upon the whole the best solution of a single complex problem. So far as possible, it was a coöperative enterprise, inaugurated as a means of bringing together, in a form to facilitate close and profitable comparison, a variety of sound methods and devices in city planning, each having its own advantages and limitations. As the problem outlined was complex, demanding in its solution the application of special knowledge and experience in the fields of engineering, architecture, landscape architecture, sociology, business, etc., the committee encouraged different participants to collaborate upon a single plan. This collaboration was also furthered by the meetings of participants from time to time during the year, when the various plans were presented and discussed. While the number of participants collaborating was not large, it was sufficient to demonstrate that successful collaboration in such matters is both feasible and profitable.

The committee presents its report in two parts. The first consist of brief general comments on the plans and on some of the directly related principles which underlie the problems which these plans attempt in a measure to solve. The second part gives special comment by the committee on the merit of individual plans. As was anticipated, lack of available time has prevented both the committee and the participants from making the study as thoroughgoing as the importance of the subjects renders desirable.

Circulation

The most fundamental problems presented by the plans for the consideration of the committee were in connection [169]
CITY PLANNING CONFERENCE

with the general network of major and minor streets forming the street system and thus determining the character and convenience of circulation through the property and the cost of providing for it. This street network also affects in a vital manner every other physical feature of the plans.

In estimating comparative merit in the location of streets, the committee felt handicapped by the lack of fuller knowledge of existing related streets. Detail planning including minor streets, such as is called for by the Study, would be affected by minor streets and other details in the surrounding property. The key map of the city in which the tract is located is not altogether sufficient for this purpose. In other words, the committee was impressed with the organic character of city planning and the intimate relation of a piece of property to all property adjoining it.

It should be noted that no plan follows the characteristic gridiron system of American cities. While the street systems of the various plans differ widely from each other, all are irregular in some degree. Some are mainly rectilinear, some curvilinear. The difference in the character of the curves would make a difference in cost of description and construction.

In all the plans attention has been given to the requirements of through traffic. There is also a very general and praiseworthy recognition that minor streets should be arranged so as to avoid through traffic. Some plans, perhaps, have carried this effort to the point of inconvenience, even for local circulation. As far as possible, minor streets should be perpendicular to the major streets, thus avoiding numerous acute-angled building sites. Merit in access consists in taking into consideration traffic from the surrounding streets, from the railroad station and to the local centers within the property—parks, factories, etc.

The range of width for main streets, as shown in the plans, is from 80 feet to 120 feet. A central parkway
CITY PLANNING CONFERENCE

1200 feet long on one of the plans is 148 feet wide. Minor streets are from 32 feet to 50 feet. Some inner lanes and courts are only 24 feet wide. In about one-half of the plans the width for the roadway appears to be based upon a vehicle unit of 8–9 feet.

On account of the level character of the topography, street grades are relatively unimportant, except as affecting the location of sewers. Of the four plans of sewer systems sent in, three show separate systems. One participant points out that duplicate sets of all underground pipe located within the planting areas cost relatively little more than a single system under the paved area, and save constant tearing up of the streets. For surface drainage it is cheaper to keep an open stream than to use covered conduits. Such streams should be parked for sanitary if for no other reason. With a more irregular topography the location of streets with regard to grades would be a controlling factor.

As a rule, the plans and accompanying sketches have not been carried far enough to give a definite impression as to the treatment of streets except with regard to trees. Some of the plans have virtually eliminated trees from the narrow streets in the workmen's sections. Must people of small means forego street trees, it may be asked? Car lines are not shown in all of the plans, but the location and width of main streets indicate where these would naturally be established. They would be most serviceable with the least trackage by running from the center of the city, through the civic center of this particular tract to the factory district.

PUBLIC PROPERTY

The committee was of the opinion that the civic center, if well located, should take advantage of the elevation near the middle of the tract, should be central and should be well related to the main streets. The plan should also
give some indication of site treatment with number and types of buildings needed.

Other public and quasi-public buildings should serve public needs through proper distribution and proper site treatment. In the case of schools, churches and similar buildings the situation should be prominent and yet quiet.

The provision for recreation is very closely related to public buildings, especially in the case of schools. Some of the plans emphasize the value of large central grounds for recreation, while others give preference to wider distributed grounds of smaller area. There is also a contrast offered in showing recreation areas located with the street frontages as against areas in the centers of the blocks. The latter have some distinct advantages in use and in relatively low cost. A combination might secure the main advantages of each. Minor squares and "green spots" add interest and have been shown to some extent in most of the plans.

All of the plans without exception have indicated the stream valley and pond as a public park. There is considerable variety, however, in the extent of territory reserved. With such a natural feature, related as it is to territory beyond the tract in both directions, it would seem as if the stream should be preserved in its entirety, so as to permit of organic connection with somewhat similar reservations beyond.

All of the plans, barring one, provide boundary streets for this valley park, permitting a lot development of the streets fronting the park. One plan, however, arranges that the private property in lots should abut directly on the park. It is not easy to estimate the relative advantages and disadvantages, but the preponderating opinion of the committee was in favor of boundary streets. Some of the boundary streets for the valley park were of such location and width as to invite through travel which would be undesirable.

The border park at the north of the property between
CITY PLANNING CONFERENCE

the factories and the homes, shown on one of the plans, forms at once an effective division and a serviceable recreation area.

PRIVATE PROPERTY

City planning involves regulation or control of private property, mainly through the use of the police power and through the aid or hindrance which it gives for physical development. One of the greatest aids is the application of the principle which would lead to the distribution of buildings into zones with regard to both use and income. The main divisions are factories, stores, apartments, residences.

The factories were definitely located by the committee in advance. (Two of the plans show encroachment upon this area with features other than factories, and one plan encroaches on property beyond the jurisdiction of the plan.) The number and distribution of stores have been considered by most of the participants and seem to represent a fairly general agreement as to location and extent. In the main the stores are shown on principal car lines or near traffic centers. There would also be some corner stores scattered through the property, forming smaller, subordinate store centers.

A central situation is not essential for apartments to the same degree that it is for stores. In contrast to stores, there are also disadvantages, as well as advantages, in placing apartments on a car line street. There are, however, economy and some advantage of architectural effect usually in combining some apartments with stores.

The high value of the land in the property under consideration ($2500 per acre) and the character of a majority of the population would seem to require the building of houses in groups or at least semi-detached. A building containing two two-family houses represents the maximum density with adequate light and air. The ideal, however, for the average family would be the one-
family house, and the minimum requirements would seem to be a house from 13 to 15 feet wide with four rooms. The plans do not present sufficient detail to warrant detailed comment by the committee. Moreover, the whole subject of small house building is now in a state of discussion and transition. It is believed that the efforts to reduce its cost will soon bring about important discoveries and changes. There will also probably be a simplification of the ideas as to what features are essential in a small house.

The size, shape and proportions of blocks are of great importance and are controlled, of course, mainly by the location of streets. Some variety in shape of blocks is desirable and often economic. It is preferable, however, to keep fairly near to a rectangular shape. The maximum desirable length is between 600 and 800 feet.

There is a decided advantage in east and west frontages for houses, especially in closely built sections. This applies, however, to northern climates only, which is here assumed to be the case. As the plans are all irregular, there is a variety of frontages; other things being equal, the east and west frontages should be favored.

The size, shape and proportion of lots are, of course, dependent largely upon the size, shapes and proportions of blocks. Here again, within limits, variety and differences are desirable, thus supplying different demands. A fair minimum for lot widths would be 14–15 feet for group dwellings, 20–22 feet for semi-detached dwellings (each unit) and 25–30 feet for detached buildings. The minimum depth of lots in these classes should range from about 65 feet to 80 feet. Some might be as deep as 100 feet. There is a direct relation between the size of lots and the utilization of a portion of the interior of blocks for playgrounds or allotment gardens. This relation should be kept in mind in any attempt to estimate the justification or value of one or the other.

One of the most approved forms of restrictions is that
of a building line establishing the set-back for the buildings from the street. In some plans this strip is considered a part of the street and is to be publicly owned; in others it is restricted private property. The width of this strip ranges from 5 feet to 25 feet or more. If too deep, it would be wasteful and out of proportion to the size of the lot. It would also make service connections expensive. It appears to be generally agreed that this building set-back should not be uniform through the property, but should vary in relation to the width of streets or the depth of lots. In many of the plans it varies within the block, giving an irregular arrangement to the houses and increasing the interest of the street scene. No back building lines have been provided in the plans. There would seem to be much the same reason to establish a back building line as a front building line; also that the distances between houses should be as great between backs as between fronts. Ordinarily other restrictions would be imposed in the development of such property which would provide against what are termed nuisances. This has been covered in the accompanying statements from some of the participants.

It is an open question whether such a tract as that submitted for laying out should be planned so as to encourage stability or provide for future possible convertibility. The two qualities are largely mutually exclusive, but not strictly so. Convertibility depends mainly upon provision for circulation, the size of blocks and the lack of irregularities, because, when residence property is changed to some other use, it is usually to that of apartments, business or industry. Assuming equally satisfactory provision for the purpose or purposes for which the tract is originally planned, the committee is of the opinion that convertibility to some other possible or probable use is, on the whole, to be preferred.

In this second part of the report, which is an attempt to appraise the plans submitted by the participants in the
CITY PLANNING CONFERENCE

Study, the committee has adopted the following general outline as a basis for comparison.

I. PHYSICAL FEATURES

A. Circulation

1. Streets
   a. Location (with special regard to access from surroundings, and to civic and neighborhood centers, factories, parks and other open spaces).
   b. Widths and subdivisions.
   c. Grades.
   d. Treatment — trees, etc.
2. Electric car lines.
3. Drainage.

B. Public Property

1. Location and character of civic and neighborhood centers.
2. Other public and quasi-public buildings.
   a. Playgrounds and other small open spaces.
   b. Valley and other parks.

C. Private Property

1. Distribution into zones with regard to use and income.
   a. Factories (previously determined)
   b. Stores.
   c. Apartments.
   d. Two-family houses (detached, semi-detached and grouped).
   e. One-family houses (detached, semi-detached and grouped).
2. Size, shape and proportion of blocks.
3. Aspect of frontages (sun and wind).
CITY PLANNING CONFERENCE

4. Size, shape and proportions of lots.
5. Building lines and other restrictions.

D. Convertibility or Stability

(Adaptability to uses other than those for which the plan was made.)

II. FINANCE AND METHODS

A. Expense Involved

1. Land and fixed charges.
2. Improvements.
   a. Sewers.
   b. Streets \{Walks.
      Parking, etc.
   c. Parks and other open spaces.
3. Houses.

B. Rentals

C. Permanent Control and Maintenance

The primary purpose of the Study being to bring out the best definite suggestions for the treatment of the tract selected, the committee has decided to mention, in connection with each topic, only the points of special interest or greatest relative merit. The plans have been numbered in alphabetical order and for convenience are referred to by the key number (see list of Participants). The following special comment is presented for the consideration of the members of the Conference.

I. PHYSICAL FEATURES

A. Circulation

Plan Number 1. In some respects the circulation is good, notably in providing access to the civic center from [177]
all points and to the railroad station, and in providing

certain north and south and east and west connections.

Plan Number 3. Good provision is made for through
traffic in nearly every direction. The sewerage system is
efficient, but there are too many stream crossings.

Plan Number 4. The system of circulation shows an
appreciation of the importance of the large public park,
the connections from the southwest corner, the railroad
station, and partial appreciation of the importance of
direct travel from east to west. Except for these thor-
oughfares, through traffic is not adequately provided for.
The system of sewers is efficient, but sanitary sewers should
not “dead end.” There are not enough storm sewers, and
sewers should not cross streams.

Plan Number 7. The system of main thoroughfares is
good, especially in relation to the southwest corner. Di-
rect approach to the railroad station is not provided. The
arrangement of secondary streets is practical.

Plan Number 8. Circulation is amply provided for in
both main and minor streets, except that direct approach
to the railroad station is neglected. There is special merit
in the fact that convenience of circulation has been secured
and at the same time picturesque irregularity, which in
this plan is appropriate. Access is particularly good.

Plan Number 9. This plan emphasizes the provision
for circulation especially in respect to thoroughfares from
the northwest to the southeast, from west to east and from
south to north. It omits the very important connection,
viz., from southwest to northeast. The system of sewers
is efficient, but sanitary sewers should not “dead end” or
cross the stream. The number of storm sewers is
insufficient.

B. Public Property

Plan Number 1. In this case the valley park repre-
sents a distinct type with practically no longitudinal street
frontage, adjacent property bordering directly on the
CITY PLANNING CONFERENCE

This park scheme would be likely to be effective only under sufficient control.

Plan Number 2. The treatment of the valley park has merit.

Plan Number 7. The civic center is well located with respect to topography and accessibility. The provision for recreation near the factories is unusually good. The park strip near-by provides a buffer between the factories and the homes and is a feature of special merit.

Plan Number 8. The site reserved for public buildings and stores has the advantage of a central situation located and designed in such a way as to reduce the amount of traffic through it. Special interest lies in the fact that the property reserved for public use generally involves a relatively small amount of street frontage.

Plan Number 9. The civic center has distinctive merit.

C. Private Property

Plan Number 2. The east and west aspect of lot frontages is good, and the building lines adopted are consistent with the depth of the lots.

Plan Number 3. The building lines show variety and interest, especially in the treatment of intersections and setbacks to permit trees at intervals on narrow streets.

Plan Number 7. The zone system is well worked out, especially in relation to the better grade of workingmen's homes, which are located in the wooded area near the factories.

Plan Number 8. Building lines are good as applied to property like this under sufficient regulation. The control by the public of all street property between buildings has decided advantages for its present development and, if adequate in width, would have value as an aid to future widening. The size and depth of lots and blocks show interesting and discriminating variety.
D. Convertibility or Stability

Plan Number 1. Convertibility good; this is the least stable of all the plans.
Plan Number 2. Convertibility possible.
Plan Number 5. Convertibility fair.
Plan Number 6. Convertibility fair in parts of plan.
Plan Number 7. Convertibility practical.
Plan Number 8. Fair from both points of view.
Plan Number 9. Convertibility difficult owing to sharp angles in streets.

II. Finance and Methods

The committee has decided to publish in tabular form the statistical statements submitted by the participants. In this form the figures of each plan may more readily be compared with those of the other plans. Significant averages only are given below.

In the opinion of the committee the item of profit is not covered in the statistical statements in an entirely satisfactory manner. It believes an additional profit in excess of the five per cent interest is necessary to attract capital to invest in an enterprise of this kind and compensate for personal attention. This profit also would provide a reserve fund for contingencies as well as offer a speculative reward to offset the hazards of a business of this character. From this point of view, it is believed that an average of nine per cent would be approximately correct. This figure, however, is applicable only to the actual amount of capital invested in the enterprise, which is normally about fifty per cent of the total cost. The averages of the percentage of profit, over and above five per cent, applied by the participants to the whole cost, do not greatly exceed such an amount.
CITY PLANNING CONFERENCE

Significant figures of special interest, based on the statistical statements, follow:

Street area, range from 20 per cent to 28.5 per cent. Average .................. 25.9 per cent
Park area, range from 5.5 per cent to 12.9 per cent. Average .................. 9.3 per cent
Lot area, range from 63 per cent to 74.5 per cent. Average .................. 64.8 per cent

Number of families. Average .................. 6,287
Density of population per acre .................. 70

Cost of land plus interest and taxes during period of operation (I, II, III). Average $1,539,381.00
Construction cost (IV and V). Average...... 1,318,057.00
General overhead expenses (VII). Average. 571,488.00
Profit (IX). Average .................. 210,022.00

Total selling price of lots............. $3,638,948.00
Price per square foot for lots. Average...... 26.2 c.

The figures sent in by the participants in the Study are given in the statistical statement on pages 185 to 187:

In conclusion, may I point out that a large part of all city planning — and it is especially true of this Study — is the attempt to forecast the future? In a discourse recently delivered by Mr. H. G. Wells at the Royal Institution, London, under the title of "The Discovery of the Future," he discusses the general subject in an able and helpful way, in a way that relates it to our subject. He points out how the past dominates us. "Though foresight creeps into our politics and a reference to consequence into our morality, it is still the past that dominates our lives. But why? Why are we so bound to it? It is into the future we go, tomorrow is the eventful thing for us. There lies all that remains to be felt by us and our children. Yet we marshal and order men into classes entirely with regard to the past; we draw shame and honor
out of the past; against the rights of property, the vested interests, the agreements and establishments of the past, the future has no rights. Our conveniences, like our thoughts, are all retrospective; we travel on roads so narrow that they suffocate our traffic; we live in uncomfortable, inconvenient, life-wasting houses, out of a love of familiar shapes and familiar customs and a dread of strangeness; all our public affairs are cramped by local boundaries impossibly restricted and small."

Our knowledge of the past is dependent, as Mr. Wells shows: (1) upon memory; (2) upon history and tradition, and (3) upon an inductive study of the past. This latter is a new kind of knowledge. It has become possible for men, by picking out a number of suggestive and significant-looking things in the present, by comparing them, criticising them and discussing them, to construct an amazing searchlight of inference into the remoter past. "And this great discovery of the inductive past was secured by the discussion and re-discussion and effective criticism of a number of existing facts, odd-shaped lumps of stone, streaks and bandings in quarries and cliffs, anatomical and developmental detail that had always been about in the world, that had been lying at the feet of mankind so long as mankind had existed, but that no one had ever dreamed before could supply any information at all, much more reveal such astounding and enlightening vistas. Looked at in a new way, they became sources of dazzling and penetrating light. The remoter past lit up and became a picture. Considered as effects, compared and criticised, they yielded a clairvoyant vision of the history of interminable years." "So," continues Mr. Wells, "I had come to believe in the megatherium, which I have never seen, as confidently as I believe in the hippopotamus that has engulfed buns from my hand."

Why, he then asks, by seeking for operating causes, may it not be possible to throw a searchlight of inference forward as well as backward, and so, by the same process
of induction, discover the future and its needs? Such an attempt, in the opinion of the author, would show what the future will bring about — for example, he says, a higher standard of education and personal efficiency; possibly, in time, the establishment of a world state, and — this interests us especially — that our present dense populations in cities are in the opening phase of a process of diffusion and aeration. He finishes his brilliant essay by dwelling on the change that the present period stands for, and the promise of the future based on the fact that humanity everywhere is getting into marching order.

Now, is there not room for a discovery of the future and some definite planning for it in connection with the subject that now engages our attention? Can we not be reasonably sure that the American city of the future will make better provision for the circulation of men and goods, that it will exercise a larger measure of official control in so vital a subject as transportation, that better standards of public work will increasingly prevail? May we not also safely predict that recreation will be better understood and provided for, and that all the problems of preserving and enhancing child life will become almost the main care of society? The characteristic American home of to-day, as we see it in Chicago, for example, is not, we can be sure, to be the characteristic home of the future.

Finally, if these changes are to come about, they must not only be forecasted, they must be patiently and definitely planned for; and difficult problems of design, of construction and of distributing the great cost thereof must be met. Just such problems as this Study involves, problems also of the adjustment of one interest to another and of the reconciliation of individualism and collectivism, must be met with courage and ultimately mastered.

No one who has worked on such a Study as that which has engaged your committee can fail to realize that if we are to march steadily forward in city planning and city building we must recognize afresh that radical changes in
our practice can be brought about only by changes in public opinion. We must find more and better ways of forming intelligent public opinion and of giving it effective expression. Our conditions are ripe. There is nothing in Europe to correspond with the widespread civic awakening that we have here; therefore the promise of our American life is bright, because of this new spirit of which city planning and city building are, after all, only meagre expressions.
STATISTICAL STATEMENT

SCHEDULE A—AREAS. SCHEDULE B—SELLING PRICE OF LAND. SCHEDULE B-1—DETAIL CALCULATIONS FOR B. SCHEDULE C—COST PER CUBIC FOOT OF TYPICAL HOUSES. SCHEDULE D—SELLING PRICES AND RENTALS OF TYPICAL HOUSES AND LOTS
<table>
<thead>
<tr>
<th>Areas</th>
<th>C. F. BRINCKERHOFF</th>
<th>STEPHEN CHILD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area in acres</td>
<td>Area in square feet</td>
</tr>
<tr>
<td>Area used for street</td>
<td>100</td>
<td>4,356,000</td>
</tr>
<tr>
<td>Area used for parks, etc.</td>
<td>27.6</td>
<td>1,199,638</td>
</tr>
<tr>
<td>Area of salable lots</td>
<td>355.4</td>
<td>15,919,862</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>481</strong></td>
<td><strong>20,955,500</strong></td>
</tr>
<tr>
<td></td>
<td>No. of families on tract</td>
<td>6,250</td>
</tr>
<tr>
<td></td>
<td>Density of population per acre</td>
<td>75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Areas</th>
<th>DUNINGTON-GRUBB &amp; HARRIES</th>
<th>IRVIN J. McCRARY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area in acres</td>
<td>Area in square feet</td>
</tr>
<tr>
<td>Area used for streets</td>
<td>127.7</td>
<td>5,593,600</td>
</tr>
<tr>
<td>Area used for parks, etc.</td>
<td>31.1</td>
<td>1,353,050</td>
</tr>
<tr>
<td>Area of salable lots</td>
<td>322.2</td>
<td>14,039,850</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>481</strong></td>
<td><strong>20,955,500</strong></td>
</tr>
<tr>
<td></td>
<td>Number of families</td>
<td>5,293</td>
</tr>
<tr>
<td></td>
<td>Density of population per acre</td>
<td>55</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Areas</th>
<th>MORRELL &amp; NICHOLS</th>
<th>MULFORD &amp; BROWN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area in acres</td>
<td>Area in square feet</td>
</tr>
<tr>
<td>Area used for streets</td>
<td>113</td>
<td>4,922,280</td>
</tr>
<tr>
<td>Area used for parks, etc.</td>
<td>61</td>
<td>2,057,160</td>
</tr>
<tr>
<td>Area of salable lots</td>
<td>307</td>
<td>13,372,920</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>481</strong></td>
<td><strong>20,952,360</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Areas</th>
<th>NOLEN, HALDEMAN, Bourne &amp; COMEY</th>
<th>OLMSTED, PHILLIPS &amp; WHITING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area in acres</td>
<td>Area in square feet</td>
</tr>
<tr>
<td>Area used for streets</td>
<td>137.35</td>
<td>5,982,950</td>
</tr>
<tr>
<td>Area used for parks, etc.</td>
<td>43.50</td>
<td>1,764,180</td>
</tr>
<tr>
<td>Area of salable lots</td>
<td>303.15</td>
<td>13,208,370</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>481</strong></td>
<td><strong>20,955,500</strong></td>
</tr>
<tr>
<td></td>
<td>Number of families—based on average price of land per sq. ft. (XI) and average rental (House and Lot No. 5) . . . 7,404</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Areas</th>
<th>F. A. CUSHING SMITH</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area in acres</td>
<td>Area in square feet</td>
</tr>
<tr>
<td>Area used for streets</td>
<td>130.67</td>
<td>5,692,310</td>
</tr>
<tr>
<td>Area used for parks, etc.</td>
<td>31.1</td>
<td>1,355,400</td>
</tr>
<tr>
<td>Area of salable lots</td>
<td>319.23</td>
<td>13,906,790</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>481</strong></td>
<td><strong>20,955,500</strong></td>
</tr>
<tr>
<td></td>
<td>Number of families on tract</td>
<td>5,075</td>
</tr>
<tr>
<td></td>
<td>Density of population per acre—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average net</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Average gross</td>
<td>63</td>
</tr>
</tbody>
</table>
SCHEDULE B-I
DETAIL CALCULATIONS FOR B
UNIT COSTS

SANITARY SEWERS .... $2.50 per lin. ft. PAVEMENT, continued
STORM SEWERS .... 2.50 per lin. ft. Concrete curb .... $0.75 per lin. ft.

PAVEMENT
Stone block .... 3.00 per sq. yd. Concrete combined curb and gutter .... 1.25 per lin. ft.
Wood block .... 3.00 per sq. yd. Concrete sidewalk . 0.12 per sq. ft.
Brick .... 2.00 per sq. yd. GRADING .... 0.35 per cu. yd.
Asphalt .... 1.75 per sq. yd. LABOR .... 0.20 per hr.
Bitulithic .... 2.25 per sq. yd. STREET TREE, SET .... 5.00 each
Bituminous macadam .... 1.25 per sq. yd. TURF AREAS .... 0.15 per sq. yd.
Gravel .... 0.75 per sq. yd.

SCHEDULE C
COST PER CUBIC FOOT OF TYPICAL HOUSES

<table>
<thead>
<tr>
<th>No. 1</th>
<th>No. 2</th>
<th>No. 3</th>
<th>No. 4</th>
<th>No. 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>House number (see plan)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Number of rooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Number of baths</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ground-floor area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Average height (ft.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(from ground-floor level to ceiling of upper story, plus half the roof height above upper ceiling, plus half the cellar height.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Cubic contents (cu. ft.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Assumed total cost of house ($)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Assumed cost of house per cu. ft. (cents)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SCHEDULE D
SELLING PRICES AND RENTALS OF TYPICAL HOUSES AND LOTS

<table>
<thead>
<tr>
<th>No. 1</th>
<th>No. 2</th>
<th>No. 3</th>
<th>No. 4</th>
<th>No. 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>House and Lot, number (see map)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. SELLING PRICE OF PROPERTY:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Price per sq. ft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Selling price of lot</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. House</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. FIXED CHARGES (to be met by yearly rental)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Interest, 5 per cent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Taxes, 1½ per cent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Depreciation, insurance, collections, etc., * per cent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. MONTHLY RENTAL (1/12 of II)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. SCHEMES OF SELLING ON INSTALLMENTS (optional)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

George E. Hooker, Presiding
Secretary, Chicago City Club

It is an interesting thing to recall — however it may be more in my mind than in the minds of some of you gentlemen — that the second meeting of the National City Planning Conference was held at Rochester, and that there was a proposal which came from the City Club of Chicago, that there ought to be held as soon as practicable an exposition of theoretical or speculative city planning, the idea being that a given city should be studied with reference to its population, topography and industries, and it should then be determined how to provide for a plan, how that city should be laid out in view of those factors.

The proposition has never been fully carried out just as was then suggested, but we have, however, at this meeting the results presented of a proposal somewhat in that line which was acted on by the Executive Committee in the conference last year, which involves a very careful study of a section of about five hundred acres, presumably near a city of half a million, presenting an idealistic scheme for laying out that section with reference to the natural factors to be dealt with. We are to have those plans presented this afternoon. Slides have been made which will be thrown on the screen and explained. We have also carried out, as some of you saw yesterday at the City Club, a study of a particular quarter section of a level city from a theoretical standpoint.

I will call upon Mr. Nolen, who will present these plans. [ 189 ]
Mr. Nolen:

We are going to try to make this a very informal and very intimate sort of discussion, and we hope there will be an opportunity for every one so disposed to participate in it.

Perhaps it will help us if I state briefly the purpose of the plan, and the scheme that we are going to follow. I intend to read first the outline which the committee adopted as a basis for the examination and comparison of the plans;¹ then various members of the committee who are interested in particular parts of the subject are going to speak very briefly on the various topics,—circulation, public buildings, and private property, and financial methods; and then we are going to have the lantern slides giving each plan, and with each plan shown we shall give the comments of the committee. After that we will run the slides through once more, and then have the general favorable comment and the points of special interest and merit in the opinion of the committee. Then we are going to have another try at the slides and run them through for general discussion, and we hope that it will be lively.

I think probably that most of those here are somewhat familiar with the conditions fixed and the data furnished for the study, which is published in a special supplement of "Landscape Architecture." Therefore it will not be necessary to read all the conditions. Keep in mind that this is a tract of approximately 500 acres,—481 acres, to be exact,—and that it is supposed to be four miles from the center of the city of 500,000 people, and that this land, the original raw land, cost to buy $2500 an acre.

Furthermore, it is not an idealistic scheme in the sense that it is a simple drawing or working out of the possibilities designed regardless of cost, or regardless of conditions. It has, I think, all of the definite conditions that any actual tract would have, and in some ways it is more instructive than any particular actual tract would be, be-

¹ See pages 176 ff.
cause accidents which have to be taken into account in any particular tract have been eliminated — accidents which are not significant in any way in getting the solution of this problem, at least not for the purpose of a general study. So that we come down to a definite project with actual ground to deal with and with definite conditions; with the problem of the cost and expense also to meet, and with the usual local restrictions.

As a means of starting the general discussion along the right lines, the members of the original committee have kindly consented to speak for just a few moments, probably three or four minutes apiece, on the different divisions of the subject, and we will thus take the subject up in detail.

Circulation

B. ANTRIM HALDEMAN, Philadelphia, Pa.:

I think we all appreciate the fact that the word "circulation" is a sort of a cloak which covers a great many city planning problems of more or less importance. Therefore, in the few minutes given to me in which to speak on the subject I shall not attempt to go into detail as to the various forms and mediums of circulation.

When we come to consider circulation we immediately arrive at the street system. We might claim that the street system is the most important part of city planning, the most important part of the study, at least, in its commencement; but in order that it may not be said that this is "tea and five o'clock conversation," we shall admit that direct and convenient routes for travel form a very important part, and perhaps the most important part, of the scheme for general circulation for which provision must be made.

In providing those who engaged in this study with the data from which they were to work, a topographical plan was prepared that was purely hypothetical; the surroundings of the tract to be developed were made to represent the growth of a rectangular system of street coming up
CITY PLANNING CONFERENCE

to the borders of the tract upon two sides. There was nothing in the original data to guide the entrants in their treatment of the street system as to the needs of various forms of circulation, and it was left entirely to their discretion as to whether they would adopt the rectangular system in one portion or another, or whether they would ignore it entirely. It is rather interesting to note that discretion as to whether they would adopt the rectangular system, and this seems to indicate that there is a pretty general disposition to get away from the ingrained habits of a good many of our city planners in the years that have gone by.

Neither this session of the Conference nor this meeting has given very much time to the discussion of street problems. I think it is very proper that they should not be given much discussion beyond that suggested by this study, because at the previous conferences a great deal of time has been given to them. It is quite probable that from those discussions has grown this tendency of the men who have engaged in this study to get away from the old stereotyped methods of planning, so the Conference can congratulate itself upon some accomplishment in that direction.

There is one feature of the method of each man in working out this study which I think is worth consideration. That is the fact that every one of them has differentiated very markedly between certain classes of streets. Each one of them has given special emphasis to the necessity for working out a well coördinated system of main streets, the streets that are intended to form the main channels of circulation; and they have then filled in the minor streets, the residential streets, in accordance with their individual preferences.

I think in only a few instances are the widths of streets given; but the general tendency has been to make traffic streets quite wide, and the residential streets narrow, as a rule.
CITY PLANNING CONFERENCE

Again, in very few cases has there been any attempt to outline a scheme of local street railway transportation through the tract. There was nothing in the data which directed the entrants' attention to any particular routes for carrying transportation lines operated from the city through the tract toward the manufacturing sites or to railroad stations or beyond; but there was a general unanimity, I think, in most of the plans for carrying certain routes of travel pretty directly north and south. The tendency was much more toward carrying main streets north and south than east and west. In most cases reasonably direct routes of travel were carried diagonally across the tract.

I think that most of the entrants gave very little consideration to how the areas adjacent to this tract may eventually be developed. There does not seem to be, in my opinion, the proper correlation upon some of the plans between the streets of this particular tract which covers almost a square mile and those which may be laid out in the future upon other tracts bounding it, especially if we assume that these other tracts will not be laid out on the rectangular system.

PUBLIC BUILDINGS

GEORGE B. FORD, New York City:

It is a little difficult to discuss the treatment of the public buildings without having the pictures and the slides before us. Every case is different from any of the others, so that general principles are hard to lay down. However, in a general way we may say that the location and arrangement of public buildings depends partly on the use and partly upon the æsthetic appearance of the buildings. From the standpoint of use, it is desirable to have them reasonably accessible from all parts of the property. That means that they should be somewhere near the center, but not necessarily at the center. From the æsthetic stand-
point their location really makes very little difference except as we consider topography and vistas. In the property before us there is a little hill to one side of the center. The grouping of the public buildings against the hill as a background, or perhaps on top of the hill, as a crowning feature of the whole layout will make them of greater interest, make them count more than if they were not in that location.

From the standpoint of the relation of these buildings to the streets and the transit features in the community, it is obvious that they should be near the crossing of the principal streets, but probably not at the crossing, for when we come to consider the grouping of buildings which are to be used for commercial purposes, that is to say the stores and offices, if such exist, it is evident that these would naturally be the buildings which would come at this point. If the public buildings were somewhere near and readily accessible from this center, the demands of use would be satisfied.

We should differentiate between the different kinds of public or civic buildings. The above suggestions are for those used for the government of the community. They should be as near the center as possible; school houses, however, should be more distributed. The high school, of which probably there would be only one, should be nearer the center, while the grade schools and the primary schools should be distributed, so that the children in the different parts of the community would have the least distance to walk. That brings up the problem of the location of these grade schools in these different sub-centers of the layout. Probably they would not be at the secondary crossings of the main streets, but at points where they would be away from the noise and danger of through traffic, yet easily accessible from these streets.

The other matters that will come up in this connection can be explained more readily from the individual drawings than they can in a generalized statement.

[194]
PRIVATE PROPERTY

JOHN IHLDER, New York City:

All of you who have had any dealings with an architect know how very easy it is for him to make you a beautiful and luxurious house — if you do not limit him at all in the matter of cost. The same applies in city planning. We felt it would be easy enough for the competitors who entered this competition to give us fine plans if they did not have to figure out the cost. But we believed that the fundamental thing was to provide good types of houses at as little cost as possible. So we asked all the entrants to submit data to show how the plan would work out financially. You will later hear more in detail about that.

I wish merely to call your attention to some of the results as they affect housing. Most of the entrants gave a very fair proportion of detached single houses. Of course, not all of the houses were of this character, because of the original high cost of the land. Because of that it apparently was necessary to include some group and row and even some barracks or apartment houses.

All of the houses in the tract are comparatively low; they range from ten to thirty feet in height. The number of rooms per house varies from three to seven. The cost per cottage varies from $1200 to $2500. Of course, we must admit that there cannot be close comparison of costs between houses built in different parts of the country, because the costs of labor and material vary so greatly. But these figures show that we have been able to tie the entrants down to earth; we did not permit them to get their heads entirely above the clouds.

The rent per house based upon the estimated cost per house varies from $12.50 to $97 per month. Each house is provided with a bathroom. The cost per room, where given, which was only for the cheapest houses, varied from $250 to $300. As there have been houses as good as these
built for about $200 per room, this shows that our planners did not get their feet entirely off the ground.

FINANCING METHODS

JOHN M. DEMAREST, New York City:

In connection with the financing or method of financing this particular study there is not a great deal to be said, for the reason that the committee supplied, not only the formulae by which the ultimate results were to be reached, but also the unit costs for the improvements as well as the cost of the land. It is important to note the amount of land that has been distributed for parks, streets, and salable lots. The average shows the amount of streets or the amount of land set aside for streets to be 29.9 per cent of the total area, which I think is quite reasonable from a financial standpoint.

The area of land devoted to parks is 9.3 per cent and the area of salable lots is 63 to 74 per cent, or an average of 64.8 per cent.

One of the plans in particular shows a percentage of salable lots of something like 69 per cent of the whole subdivision; it is a fact that those lots are quite shallow in depth, but I think it is particularly important to the financial side, because there seems to be a tendency on the part of some of the designers to give unnecessarily deep lots, or lots of a greater depth than 100 feet; the argument advanced is that lots of 100 feet or less in depth are more expensive to develop, by reason of the excessive cost of street construction. The figures shown in these statements clearly indicate the incorrectness of this theory.

The cost of the land was set by the committee at $2500 an acre. The rate of interest was put at 5 per cent and the taxes or assumed taxes at 15 mills. The detailed cost of construction was based on the unit cost supplied by the committee.

It is interesting to know that after compiling the entire
CITY PLANNING CONFERENCE

cost of the development, interest charges, and assumed additional profit of 9 per cent, the lots can be sold at an average price of about 25.6 cents per square foot. That shows an economic development of the land and a reasonable profit when you consider the character of the development.

It might be noted that the selling price of the lots here, after contemplating the expenses and the cost of improving, is a little less than three times the cost of the land. The cost of the construction work, with interest, averages about $2000 per acre.

There is one suggestion I should like to offer to the conference, and that is the importance of having a statistical statement prepared in connection with each study of city planning. I am surprised to note that heretofore there has been no statistical statement presented. It would have been of material help to those associated in this work if they could have had some statement of cost for reference.

If the conference would impress upon the various cities that are studying this problem in a collaborative or tentative way the importance of having a statistical statement giving the cost of development, which would include in detail the interest and the unknown quantity of the overhead and administrative expenses, I am sure it would be helpful.

As I have stated, I do not know of anything further that can be added to this statistical statement in connection with the financing of this particular problem, because the committee supplied the information to the participants, and they worked along these lines.
DETAILED COMMENT OF THE COMMITTEE, ARRANGED ALPHABETICALLY BY PLANS IN THE ORDER OF THE REGULAR NUMBERS GIVEN TO PARTICIPANTS

PLAN NUMBER ONE

A. F. BRINCKERHOFF

A. Circulation.

1. Connection with southwest corner, fair.
   Southeast corner, fair.
   Northwest corner, good.
   Northeast corner, fair.
   North and south connections, good.
   East and west connections, good.
   Minor circulation, good.
   Accessibility to parks, playgrounds, good.
   Accessibility to public center and public buildings, good.
   Accessibility to factories, not good.

B. Public Property.

1. Civic center, fair.
   Well located as far as the thoroughfare system will permit. Treatment is unusual, owing to the fact that the thoroughfares go along what would be the lesser façades of the buildings. The common has the merit of being secluded.

2. Schools and other public buildings not indicated.

3a. Playground and open spaces, not good.
   Interesting development of interior block playgrounds in a few blocks, but distribution is poor
and the scheme is not adapted exactly to the general plan. Practically no provision for general neighborhood playgrounds.

3b. Valley Park, good. Boundaries questionable. Represents a distinct type; practically no longitudinal street frontage. Property is all bordering directly on it. The through foot travel is provided for, but the possibility of park drive into adjoining regions is prevented and valuable frontage has been lost. With proper control this park scheme may work out very satisfactorily.

Public and semi-public property not indicated.

C. Private Property.

1c. Apartments good.
1e. One-family houses, good.

2. Size and shape of blocks: Not sufficient range and small lots. Lengths tend to be excessive. Shape good as a rule. Sizes of lots not differentiated.

3. Aspect good, except in north central section.
4. Building lines good, but no range.
   Limitations partly indicated, good.
   Range in value not indicated.
   Types of housing do not show differentiation.

D. Convertibility.

Good, the least stable.

Plan Number Two

Stephen Child

A. Circulation.

1. Importance of connection with southwest corner not recognized. No adequate and direct thoroughfares through the property in any direction.

Minor streets curve without relation to the topography.
CITY PLANNING CONFERENCE

3. No need for two sewage sewers on narrow streets, otherwise sufficient except that sewage sewers should not dead end. Storm sewers should not empty into open stream.

B. Public Property.

1. Civic center poorly located as to traffic; has not a commanding position.
2. Location of public and semi-public buildings, not good.
3a. Local playgrounds and small open spaces poorly located and not well distributed.
3b. Valley Park is adequately provided for, — the one good point.

C. Private Property.

2. Width of block provides for lots of excessive depth. Length of blocks reasonable.
3. Aspect of frontage, good.
5. Building lines about right for depth of lots. Height and other limitations not indicated. Size of lots not indicated. Range in values not indicated. Types of housing not indicated.

D. Convertibility.
Possible.

PLAN NUMBER THREE

DUNNINGTON-GRUBB & HARRIES

A. Circulation.

1. Connection with southwest corner, very good.
Connection with southeast corner, very good.
Connection with northwest corner, very good.
Connection with northeast corner, very good.
North and south connections, good.
East and west connections, very good.

[ 200 ]
Accessibility to civic centers, very good.
Circulation on minor streets is not good.
Circulation to main streets, good.

B. Public Property.
1. Civic center effective and well located, but no public buildings, except one school, indicated.
2. Not indicated, but good sites.
   Public and semi-properties not clearly indicated.
3a. Playgrounds not indicated. Open spaces, very good.
   Long areal composition overdone.
   No neighborhood playgrounds.
3b. Valley Park, fair.
   Area good, no provision for incoming stream; roads invite too much traffic.

C. Private Property.
4. Size of blocks too deep; shape, fair.
5. Building lines show variety and interest, and probably good as far as indicated on the plan.
   Aspect of frontages, no consideration given.
   Height and other limitations not indicated.
   Size of lots not shown.
   Range in values not shown.
   Type of housing not shown.

D. Convertibility.
   Not good.

Plan Number Four

I. J. McCrory

A. Circulation.
1. Importance of southwest corner recognized, but circulation to civic center not good.
   Good entrance from southeast corner, but desirability of passing through park doubtful.
CITY PLANNING CONFERENCE

Circulation to and from railroad station, good but over-emphasized.
Circulation, north and south, fair.
Circulation, east and west, fair.
Circulation to the secondary streets is not good.
Accessibility to public and semi-public buildings, good.

2. Provision for trolley transportation, fair.

B. Public Property.
1. Civic center not effective, not good.
2. Good, except no school for east side. Fair.
3a. Adequate. Playgrounds and open spaces, good.
3b. Not good. Valley Park, fair.

C. Private Property.
1. Scale of zone system too high in price.
1c. Apartments, fair. Interesting development at south end of north and south thoroughfare.
1e. Single-family houses, good.
3. Aspect of frontage, poor.
4. Sizes of lots not sufficiently indicated for criticism.
5. Building lines all right. Height and other limitations only partially indicated.
Range in values too high.
Type of housing not sufficiently indicated.

D. Convertibility.
Bad.

PLAN NUMBER FIVE
MORELL & NICHOLS

A. Circulation.
1. Connection with southwest corner, good.
   Connection with southeast corner, not good.
   Connection with northwest corner, fair.
   Connection with northeast corner, fair.

[ 202 ]
CITY PLANNING CONFERENCE

Approach to the civic center is good, but circulation around the center is not good. Approach to the factories is poor; public and semi-public buildings, parks and playgrounds, good. North and south connections, fair. East and west connections, poor.

3. Evidently combined system; too many dead ends.

B. Public Property.

1. Good.
2. Good, except no school on east side.

3a. Not good; not enough public; too much private.

3b. Overdone.

C. Private Property.

1. Zone system not indicated.
1c. Apartments, fair.
1e. Single-family houses, good.

2. Blocks almost uniformly too wide and frequently too long. Shape of blocks as a rule good. Height and other limitations not indicated. Range in values not indicated.

3. Aspect of frontage ignored.

4. Size of lots too big.

5. Building lines proportioned to depth of lots. Types of housing imperfectly developed. Particular lack of semi-detached houses.

D. Convertibility.

Fair.

PLAN NUMBER SIX

MULFORD AND BROWN

A. Circulation.

1. Connection with the southwest corner, good.
   Connection with southeast corner, good.
   Connection with northeast corner, good.

   [ 203 ]
CITY PLANNING CONFERENCE

Connection with northwest corner, good.
North and south connections, good.
East and west connections, not good.
Circulation of secondary streets, fair.
Accessibility to public and semi-public buildings, good.

B. Public Property.
   1. Civic center not good because no possible relation of buildings to each other; also topographically unfavorable; extravagant in the use of valuable land.
   2. Public and semi-public property, fair; fair provision for and distribution of school property except in the eastern section. No other public or semi-public property indicated.

3a. Playgrounds and open spaces, fair; the reservation of large central tract for recreation not good as compared with a similar area distributed conveniently into various neighborhoods.

2b. Valley Park very good, — overdone.

C. Private Property.
   Zone system not indicated.
   Apartments, nothing indicated.
   Single-family houses, nothing indicated.
   2. Size of blocks too wide; shape, — some good, some bad.
   3. Aspect of frontage not considered.
   4. Size of lots all too large; many out of scale.
   5. Building lines deep, inconsistent with width of blocks.

D. Convertibility.
   Fair in places.
CITY PLANNING CONFERENCE

PLAN NUMBER SEVEN

NOLEN, HALDEMAN, BOURNE, AND COMEY

A. Circulation.
   1. The southwest corner is provided for by a diagonal, which appears desirable. The southeast corner is not reached by a direct diagonal, but is rendered reasonably accessible by a main road. There is no diagonal connection with the northwest corner, which is the corner nearest the railroad station. This is a disadvantage, but is of comparatively minor consequence, because transportation is incidental. Northeast corner is adequately provided for. Main streets adequate for trolley service are provided in places where they seem likely to be needed. Arrangement of streets is such as to permit of the extension of trolley lines. Circulation of secondary streets is satisfactory.

B. Public Property.
   1. Civic center location, practically at top of hill, good.
   2. East side school takes valuable park frontage; two other schools on busy, noisy street; property too valuable.
      Location of public and semi-public buildings, fair.
   3a. Block open spaces apparently well provided for.
   3b. Valley Park adequate, but bordering roads invite too much traffic.

C. Private Property.
   1. Zone system is well established.
   1c. Apartments, good.

[ 205 ]
CITY PLANNING CONFERENCE

1e. Provision for single-family houses, good.
2. Shape of blocks is good; width of blocks, good.
3. Aspect of frontage, good, with the exception of $15 and $20 section on the north.
4. Size of lots, good.
5. Building lines, good. Height and other limitations, good.
   Range of values, good.
   Type of housing, excellent.

D. Convertibility.
   Practical.

PLAN NUMBER EIGHT

OLMSTED, WHITING AND PHILLIPS

A. Circulation.

1. Proper recognition has been given to the importance of the approach from the southwest corner.
   The importance of diagonal approach from the southeast corner has been recognized, except that the entrance to it on the main road is not sufficiently emphasized.
   The importance of a diagonal approach to the station has been neglected.
   The treatment of main traffic route to northeast corner, good.
   The main traffic routes, east and west, north and south, fair.
   The circulation generally of the minor streets, good, particularly with reference to the factory section.
   There is a possibility of serious congestion within the driveways of the civic center.
   Accessibility to public and semi-public buildings generally, good.
   Accessibility to civic center is good.

[ 206 ]
3. System efficient except that sewage sewers should not dead end; not enough storm water sewers, and sewers should not cross stream.

B. Public Property.

1. Civic center, not good. Well located with regard to main streets, except north and south. Not well located with regard to topography.

2. Public and semi-public property, good.

3a. Playgrounds and open spaces, very good.

3b. Valley Park, fair.

2. Schools not adequate in number and other public buildings not indicated.

2a. Other public and semi-public property: Adequate provision and well distributed. Especial merit in the fact that the property reserved for public use involves a relatively small amount of valuable land because of street frontage.

3b. Valley Park: excellent treatment, with the possible exception of failure to continue it through to the north.

C. Private Property.

1. Zone systems not indicated.

   Apartments not indicated.

   Single-family houses not indicated.

   Height and other limitations not indicated and indiscriminating variety.

   Range in values not indicated.

2. Size of lots, good, except in northwest corner.

   Shape, good.

3. Aspect of frontage, good, except near principal diagonal.
4. Sizes of lots, good, and show interesting and discriminating variety.

5. Building lines, good, as applied to the development of property under sufficient control.
   The control by the public of all property to the building line has decided advantages for present development, and, if adequate, would have for future widenings.
   Type of housing, good, so far as indicated by type plans.

D. Convertibility.
   Fair.

PLAN NUMBER NINE

F. A. Cushing Smith

A. Circulation.
   1. Connection with southwest corner, unsatisfactory.
      With southeast corner, excellent, but has objection of cutting through park to traffic street.
      With northwest corner, excellent: question whether too much has been sacrificed to secure it. The importance of it has been exaggerated.
      Connections with the northeast corner, reasonably satisfactory.
      Main connections through the property, north and south, very good.
      Connections, east and west, good.
      The circulation through the secondary streets is not good, and is particularly poor in the sections nearest the manufacturing sites.
      The approaches to the civic center are fairly good.
      There is no approach to the school, except in one direction.
      The approaches to the factories, parks, and general public buildings, not good.

[ 208 ]
3. System efficient, except that sewage sewers should not dead end. Not enough storm water sewers and should not cross streams.

B. Public Property.
1. Civic center, very good.
3a. Playgrounds and open spaces, fair.
3b. Valley Park, good, but too open to traffic.

C. Private Property.
1. Too large proportion of property in the higher-priced zones and failure to recognize the value of wooded section in the northwest.
1c. Apartments amply provided; on the whole, well located.
1e. Single-family houses, good.
2. Size of blocks, good; shape, poor.
3. Aspect of property, east and west, good.
4. Size of lots, fair.
5. Building lines, good; height and other limitations not sufficiently indicated.
Type of housing fairly provided for.

D. Convertibility.
Very poorly met, owing to sharp angles in streets.
CITY PLANNING CONFERENCE

Committee on City Planning Study

Original Members Appointed May, 1912

B. A. Haldeman, Bureau of Surveys, City Hall, Philadelphia.
George B. Ford, 347 Fifth Ave., New York City.
John Demarest, 47 West 34th St., New York City.
John Ihlder, Secretary, 105 East 22d St., New York City.

Additional Members Appointed January, 1913

A. F. Brinckerhoff, 15 East 40th St., New York City.
George E. Hooker, City Club, Chicago, Ill.
Charles Downing Lay, 15 East 40th St., New York City.
Frederick Pischell, 1440 Warner Ave., Chicago.

List of Participants

2. Child, Stephen (Landscape Architect and Consulting Engineer, Santa Barbara, Cal.).
3. Dunington-Grubb and Harries (Landscape Architects, Toronto, Can.).
5. Morell and Nichols (Landscape Architects, Minneapolis, Minn.).


REMARKS AT THE DINNER
REMARKS AT THE DINNER

HOWARD ELTING, Toastmaster

President of the Chicago Association of Commerce

When the Chicago Association of Commerce sends its trade extension envoys north, east, south and west, carrying the message of the Great Central Market, it is impressed upon our representatives that our hosts in near and distant cities are more concerned in being talked to about themselves than about Chicago. And this is true, but it is not an easy rule to follow—at least for a Chicagoan. But tonight, gentlemen of the far outlook and a noble art, Chicago will assume the virtue of reticence if it have it not, and forgetting the individual factors of a wondrous growth, we will make little of statistics and more of that community purpose spreading through American cities and impressively represented in this city of the Commercial Club and of the late Daniel H. Burnham, to establish the new city with three endowments—order, health and beauty.

Members of the Fifth National Conference on City Planning, and others, I am commissioned to welcome you on behalf of the Commercial Club, the Industrial Club, the City Club, the Chicago Plan Commission and the Association of Commerce. These organizations peculiarly represent the men of Chicago seeking betterment at the call of the ideal. The contribution of the organized women of Chicago to the same end is beyond valuation. You are welcomed to a city which one hundred years ago was a wooden fort, a half-mile north at the river's mouth, with huts and wigwams for suburbs. Today—and now I speak circumspectly in presence of our distinguished
German guest—we are the fourth or fifth city of the world. Why, with all our crudities and even barbarities, are we what we are? Because nature and the chosen made this place a great market. And why are we great marketers? Because we have vision and the speculative spirit which, in its highest and creative sense, dares. And then, what shall be said of this capital of commerce? It shall be said of it in terms corresponding, as Daniel Burnham was wont to say of ancient Athens, that the arts of Athens flourished upon commerce, and that with Pericles rose Phidias. So Chicago will not apologize for its commercialism, but rather will it nurture it and, through masters of the new city, like yourselves, guide it.

One hundred years ago a military officer stationed on the present site of Chicago, reporting to the government at Washington, advised his superiors that an army post at Fort Dearborn had better be abandoned, so unfavorable was the surrounding country to the maintenance of a population requiring such military resources. Well, the good captain missed his guess. Fort Dearborn is now a name, but its overgrown child leads the world in playgrounds, social settlements, in certain industries which under difficult self-restraint I have promised to magnify only in eloquent silence, and, last of all, in a consummately splendid city plan. Whatever this plan may lack will be supplied; whatever disputed features of it will not bear the test of compromise may have to be discarded; but Chicago from its prairie throne has by this plan surely been carried to a high mountain and been shown avenues of progress which it cannot and would not ignore. Meanwhile municipal poverty checks ambition, yet we are proceeding constructively none the less with such fundamental and related projects as subway surveys, elevated railway mergers, smoke abatement, study of electrification of terminals, a housing survey, an underground survey, an outer harbor, the building of the Field Museum and of a new park in the lake. No city planner needs to
be told that these projects are not children's houses built in sand.

Men of the new day, who would have the city of tomorrow a practical harmony in all its vitalities, an organism in which the humblest unit shall be healthy, happy and efficient, welcome to that city which begins to stir toward mighty accomplishment for human welfare.

HON. LAWSON PURDY:

Mr. Toastmaster and ladies and gentlemen: I was very much surprised by the introduction, because I thought I was to come last; and then I was surprised, too, because of the large amount of alleged information which the Toastmaster has about me. He did not know that I had been here to Chicago on invitation to instruct Chicago on how to levy taxes and how to amend the state constitution; but that was because I was by no means so well known as he would have you suppose.

Lately in New York the Board of Estimate, on the initiative of the president of the Borough of Manhattan, has appointed a committee to consider regulations upon building. An advisory commission has been appointed by that committee of the Board of Estimate, to aid the committee in the consideration of that very important question, too long overlooked in this country. And that question is only one of the questions comprehended in a practical city plan.

Too long the notion of city planning has prevailed in the minds of most people that it is some scheme for making beauty spots in otherwise unbeautiful cities. That can enter into it; it is a part of city planning. But city planning is, however, more than any plan to provide beauty spots. We might say really it is a plan to make cities beautiful without and within; make beautiful homes, worthy working places, that shall help to uplift all those who dwell therein.

As I came to study the idea that underlies building regulations, I tried to find some principle that should govern
the consideration of building regulations; and I thought here in this country we have been behind the other countries of the world in laying down rules for the erection of buildings; and I thought that it was perhaps due to the fact that when this country was founded it was a protest against regulation of one sort and another. The doctrine of the French Revolution took strong hold upon us, and the principle of individual liberty had a great part in the making of our country and its institutions.

Long years after that, but quite a good many years ago, Herbert Spencer laid down the principle that underlies our Declaration of Independence, and that is that every man has the right to do all that he wills so long as he does not infringe the equal liberty of every other man.

In the first part of our country's history we laid most stress on the first part of that principle. We said every man has the right to do as he wills; but oftentimes we did not realize that he only has the freedom to do all that he will if the other part of the principle is carefully applied, so that no man shall infringe the equal liberty of others.

Now that is the principle that should underlie all regulation of buildings. Every man has the right to use his own property as he wills, so long as he does not injure another man. Looking at it narrowly, no man shall use his own property so that he shall injure the property rights of his immediate neighbors.

In England they were safeguarded by the old Common Law rules of ancient rights. And as you go through London you will see walls exposed that would not be exposed in any American city, because the windows in those walls have the ancient right to certain light and air. They have a due regard there for the rights of others, more than we have had, because they do not lay so much stress on the first half of the principle to the detriment of the second half. They early made regulations which would protect men in their rights to use their own property, so that every one should have suitable light, air, and access.
CITY PLANNING CONFERENCE

We have disregarded that, to our great economic loss, the great loss of individual citizens, and to the very great loss of the great majority of land owners. I know more, naturally, of the city of New York than of other cities; but I venture to say that this is true of every American city as well as the city of New York. If you can make a mental picture of the value of land in the downtown section of Manhattan, the old city of New York, you will see what I mean.

When the steel frame building invention came, it was possible to run many stories into the air, and the financial earning power of a lot of land on which could be erected a building of twenty to thirty stories, which could be filled with tenants paying good rentals, grew to enormous heights. As you look down Manhattan Island toward the Battery, just picture to yourselves the value of land on Broadway, rising as high as $22,000 per front foot for a lot one hundred feet deep; and for some corner lots to the tremendous height of $1,250,000 for a lot twenty-five feet wide by one hundred feet deep on the corner. That value drops somewhat as you go three hundred feet toward the east a little, and more three hundred or four hundred feet further; and when you go only a few hundred feet more, it drops down to about $25,000.

Just picture to yourself what that means. Think of it! One lot worth $1,250,000, and within one thousand feet of it a lot worth $25,000; and yet they say that in the city of New York our land values force us to go away up in the air. Forces us to go away up in the air when you can buy a lot of land for $25,000 right down there in the end of Manhattan Island! Why, the thing is ridiculous and absurd.

If thirty years ago we had made suitable regulations, — and I do not mean by suitable necessarily a limit of very low height, because towers may be beautiful and may be of economic advantage, and may be no detriment to neighboring owners, provided they have enough space around
them, — but if we could have made suitable regulations thirty years ago there would probably be no lot worth a million and a quarter; but there would be no lot in that territory worth $25,000. The value would have been spread out, and when you have the value spread out it means that the people are spread out; and we would not have had such dense crowds on the few streets, and those streets too narrow to carry the people.

The chairman of our commission was speaking here a day or two ago, and said that one building alone in that downtown section, the new Woolworth Building, if it were emptied of all its tenants at one time, contains such a tremendous population that ten-car subway trains running express and running as rapidly one after another as possible, would take twenty minutes to carry it away.

Is it not obvious that by our lack of foresight we have produced a congestion of population in the daytime in that section which is injurious to the owners of land, that is injurious to the owners of buildings, many of which produce a very inadequate revenue because they are blanketed, and there is a necessity for artificial light in more than two-thirds of the rooms. And is it not injurious to those who work in those buildings, because they must work with artificial light, and without adequate air?

The same thing is true in many places on Manhattan Island in the loft zone; many buildings there are rendered unprofitable because of their being deprived of proper light, air, and access.

People on lower Fifth Avenue are trying today to establish rules for the owners of sweatshops that they shall let the people out at different hours for their luncheon, because there is not room on Fifth Avenue for them to stand upon in the middle of the day.

Then look at our tenement houses. You are fortunately better off in that respect; for by indirection you have limited the height of tenements to three stories, because I am told tenements of more than three stories high must be fire-
proof. And it is admirable that it should be so. Unfortunately with us a tenement may be six stories high, with only a slight fireproofing, so that the normal development of recent years has been a tenement six stories high covering seventy per cent of the lot. When you cover a block with such tenement houses there is neither light enough, nor air enough, nor street room enough for the people that inhabit that territory. And where are the children to play without even adequate parks? I might go on and illustrate this thing many hours; but it seems to me that the principle that underlies all this question is just that principle of individual liberty. That individual liberty must be safeguarded so that no one shall do that which will injure his neighbor, using the term neighbor in the narrow sense, and neither should anyone do that which will injure his neighbor in the wider sense.

In the narrow sense we can make our appeal in the cities of New York and Chicago or anywhere. It is the only appeal that should be made to certain people. (I have made it a good deal; I have tried it on several dogs to see how they liked it, and they did like it, and I am trying to use it effectively.) But after all, the men who come to city planning conferences, while they recognize the validity of that appeal, are influenced far more by the appeal that comes to all those that are moved by that newer law, the law that was so well expressed by the mayor of Toledo, Mr. Jones, the Golden Rule, the law of love.

The spirit that is moving modern American cities to do good things, to do great things, for all people, for those who can do but little to help themselves,—that appeal based on the law of love is what will carry us through to splendid achievements.
GAINING PUBLIC SUPPORT FOR A CITY PLANNING MOVEMENT

CHARLES H. WACKER
Chairman, Chicago Plan Commission

As the hour draws near for bringing to a close our fifth annual conference on the betterment of American cities, I believe we are united in the belief that such gatherings as these are of vital importance to our progress.

As chairman of the Chicago Plan Commission, I have been asked to tell of some of our methods and experiences in originating and promoting a plan for the orderly growth and development of a city, and to this request I respond with pleasure, hoping that our guests from other cities may benefit therefrom.

I feel a keen responsibility in my address to-night. Good fellowship and the development of friendships among us are valuable. But the vital need is that we try to grasp our responsibilities and to secure inspiration here to enable us to enthuse and enliven our associates in our every-day efforts for city welfare. It is, in my view, only as they serve that need that gatherings such as these justify themselves.

As a fundamental thought, I am moved to quote Henry Drummond, who says: "To make cities is what we are here for. For the city is strategic; it makes the towns; the towns make the villages; the villages make the country. He who makes the city makes the world. After all, though men make life, it is the cities which make men. Whether our national life is great or mean, whether our social virtues are mature or stunted, whether our sons are moral or vicious, whether religion is possible or impossible, depends upon the city."

Holding this ideal before us, what is our position in America to-day? The answer is not an easy one. We
are forced to recognize that the city planner in America to-day is a pioneer. He is not only a pioneer, but a pioneer set down in a very complex civilization.

What must we do for success in city planning? How must we proceed to get the people's interest and the people's help to make city planning win? What are the elements out of which city planning success must be produced?

We must remember that European city planners, working to develop municipalities in accordance with settled public policy, and with the backing of strong centralized governments, cannot readily appreciate the difficulties which must be overcome in city planning work in America. They cannot understand how much of public indifference there is to overcome, how many and how varied are the legal difficulties which stand in the way of city planning progress on this side of the Atlantic, and how little we have in the way of precedent to guide us in advancing the cause of good order in city building.

The man who undertakes city planning work in America will have to get down to bed rock in his effort. He will have to deal with fundamentals, and we have found in Chicago that there are three major elements in successful city planning. They embrace, respectively, the conception, the creation and the promotion of the city plan.

Behind the conception of a city plan, which must be the first step, must be civic inspiration. How can we stir the hearts of men to inspire in their minds that desire for better city conditions which are the fruits of well-executed city plans? How can we awaken the people to the need of city planning, and how can we move them to action? Those are questions which immediately arise when city planning effort is contemplated.

To my mind, the American who is devoted to having his home city developed in accordance with the best ideals, and who determines to do pioneer work in city planning, must be an exhorter. He must begin with an appeal to
The best instincts of the citizens of his city, and win them to his standard by sound, logical and intelligent arguments. Above all things he must be able to show conclusively that the plan advocated is a plan not for a class but for all the people, and a plan not for a section but for the entire city.

The man who will succeed in inspiring others to believe in and work for city planning must draw upon the whole world to-day for his arguments. He must show his fellow-citizens that city planning is the greatest issue confronting the American people. He must explain that half of our people now live in cities, and that the swelling tides of travel are increasing this proportion with every passing day. Knowing that people are deteriorating, both physically and morally, in large cities, he must urge that what these millions of people are, and what their descendants will be, in character and in mental and bodily vigor, depends largely upon the physical development of our cities.

What inspiration for city planning is afforded the civic missionary of the United States by European products of the city planners' science! Let the man who would move his brother Americans to adopt city planning programs point out to them the perfections of Paris. Make it clear that Vienna, London, Berlin, Budapest and many other cities are being made more attractive every year that they may attract the traveler, protect and develop more wisely their inhabitants and compel the creation of a better and stronger citizenship.

How inspiring to the city planner is the recent history of Germany, which in the last forty years has achieved a leading position in the world in social knowledge, in science, in industry, in commerce and in wealth.

When it is made clear to them, nobody realizes better than the business and professional men of America that this position has been attained only by far-sighted planning and conscious development to attain ends deliberately aimed at. It moves men to action to know that Berlin
CITY PLANNING CONFERENCE

is now considering the adoption of plans based upon an estimated population of ten million people, and that the time for realizing this project is set at sixty to seventy years.

The first step in successful city planning, it seems to me, is to become enthusiastically devoted to an ideal, to hold that ideal always before us and to strive constantly to spread among our men and women a belief in it. A great man said: "An individual never attains any very great size, mentally nor morally, except as he attaches himself to a great idea, and that idea, being worthy, grows with him until the stature of the man becomes equal to the stature of the idea to which he has attached himself."

That could be said, with equal truth, of a city. For success in sane city development there must be no room for doubt, suspicion, pessimism and unjust criticism. We must abhor these negative characteristics of citizenship, which in a more or less degree appear whenever progressive efforts for public improvements are attempted. The city planner must remember that "the health, happiness and general prosperity of the people is of far greater importance than the petty whims and bickerings of any class, or the selfishness of any individuals."

Gentlemen, Chicago cannot provide for you any formula for stirring the civic impulse of the people of American cities. But as a Chicagoan who has helped to develop a city plan from its inception, and as one who has seen city planning developed for one American city, I say to you that I have the utmost faith in the civic ambition and the civic idealism of the average American man and woman.

The basis for the inception of the spirit of city planning and the inspiration and the creation of city plans among the American people is always found in the pride and spirit of the particular people who will be blessed and benefited by the completion of such plans.

Chicago, as a city renowned for its spirit of achieve-
CITY PLANNING CONFERENCE

ment, has provided marvelously fertile ground for missionary effort in city planning.

Assuming that the man who would start an American city upon a course of orderly growth has won his way upward so far as to inspire other citizens, then he is ready for the next step, that of creating the plan itself.

Upon this phase of civic effort I desire to emphasize that our experience in Chicago has given the strongest possible conviction that the plan of a city must be in no way indefinite. The city planners' motto must ever be: "First know you are right, and then go ahead." The promoter of a city plan should be equipped with a scheme of development as nearly perfect as can be created. Having that, he must go into his field and cling with bulldog tenacity absolutely to the essential features of the plan. The reason for that is that city planning cannot succeed unless it has public support, and public support can be gained only for a single and definite idea.

Before a city starts to create good order in its physical arrangement, its people must believe their plan will stand every test of time and circumstance. The entire foundation upon which the superstructure will rest must, in my judgment, be completed before a single effort is made to secure public support for the city plan. Minor details may be changed in the course of years as the plan is worked out, but its great, basic, underlying foundation and broad framework must be created, tested and proven by the physical necessities, which in each city must be determined upon as local conditions warrant.

It is because of the lack of this completeness and because of the indefinite character of civic projects that city planning has not made more progress than it has in the United States. How can we expect, gentlemen, to get the backing of the citizens of our municipalities for our plans for city perfection unless the makers of those plans are supremely confident of the sanity, wisdom and ultimate success of their ideas?

[226]
CITY PLANNING CONFERENCE

Knowing the Plan of Chicago to be a good plan, we had faith to go behind it, and the result is that we are convincing the people that the plan is a good one and are accomplishing results. That faith, gentlemen, Chicago officially voices by this creed, adopted at the last annual meeting of the Chicago Plan Commission:

"We are to make the Plan of Chicago our ideal and keep it before us — dare to recognize it — and to believe in it and build for it.

"We are to look forward to the time when it will seem as extraordinary not to have an official plan toward which to direct the growth of our city, as it now seems that Chicago was ever permitted to grow in an orderless and formless manner.

"We are to establish by the influence and work of a united citizenship the power of law necessary for Chicago's advancement, commensurate with her greatness.

"We are to recognize that it requires only sufficient community patriotism to substitute order for disorder, and reason, common sense and action for negligence, indifference and inertia."

The Plan of Chicago's notice to the world that the indomitable energy that built Chicago in a generation is still our energy; that the genius that created the unrivaled beauty of the world's greatest Fair is still our genius; and, above all, that the spirit that has made progress the symbol of our commercial life has stamped "I will" and "We will" upon the progress of our civic life.

As to the ideal which inspired the creation of the Plan of Chicago, the July, 1909, issue of the Outlook contains the following: "In this country the city planning movement owes its inspiration chiefly to the World's Fair of 1893 in Chicago. When the people witnessed the impressive grouping of beautiful buildings at the Fair, they began to ask why their cities might not be made more permanently beautiful. Since the holding of the World's Fair in Chicago, practically all the larger and many of [227]
the lesser cities of the country have had studies made, and plans suggested for remodeling in accordance with orderly notions of development, with a view to promoting both beauty and utility." If the World's Fair of Chicago in 1893 was the inspiration, we ask, why shall not our city also be the leader in demonstrating what can be done in this respect?

The work of making our plan was formally undertaken by the Merchants Club in 1906, and has since then been continued by the united Commercial and Merchants clubs, since 1907, known as the Commercial Club of Chicago. Four years were devoted to the preparation of the plan, and the result of those efforts was presented in a book called the "Plan of Chicago," known the world over as the most complete, comprehensive and beautiful book on city planning ever published.

More than $100,000 was expended by the Commercial Club in obtaining the best American and foreign expert talent, and during a term of over four years there stood behind this plan, giving money, time and thought to it liberally, not dreamers, but many hard-headed business men who had grown up with the city, materially helped to build it, believed in its future, knew its requirements and realized the great responsibility placed upon those who control the affairs of Chicago in both public and private business.

History speaks of cities springing into life and thriving on a fiat of a great ruler or a powerful government. But where have you heard of a city growing, in seventy-four years, from a frontier settlement to a metropolis of over 2,300,000 people? This was made possible not only by the natural advantages of Chicago but also by the quality of its citizenship. What strong rulers and governments have done for foreign cities, the great perseverance, public spirit and humanitarian instincts of the citizens of Chicago have done and must continue to do for their city.

It was realized that we could not treat the various
CITY PLANNING CONFERENCE

elements of city planning separately, that our city was an entity and that whatever was done would have to be done skillfully and completely. We decided that every detail would have to be considered as far as possible or practicable, and that the only right way to do this would be to create a general plan as wide in scope as the entire civic influence of Chicago.

Facing this need, we of the Commercial Club of Chicago were more fortunate, I believe, than would have been a body of men of similar ambitions and ideas anywhere else in the United States and perhaps in the world. For at our very elbows stood a man of world-wide genius, one whom we all loved and admired in his lifetime and who in our memories is honored and revered to-day — an artist and architectural organizer whose memory will be more and more honored by the citizens of Chicago and the entire nation with every passing year of all future time, the creator of the Plan of Chicago — Daniel Hudson Burnham.

Mr. Burnham, working with tremendous energy and contributing out of his vast store of skill and knowledge, gained as Director of Works of the World's Columbian Exposition, gave to the Commercial Club and to Chicago the ideas upon which are founded the broad lines of the Plan of Chicago. Collaborating with Mr. Edward H. Bennett, who has been spared to continue in our work with us today, Mr. Burnham organized the Plan of Chicago.

His office developed the entire plan, and artists working under his direction prepared for the Commercial Club the plates and perspectives which it is now our certain belief will be worked out in brick, mortar and stone for the future glory and the future good of Chicago and all her people.

The Plan of Chicago aims simply at the moral uplifting and physical beautifying of Chicago, for the good of not one class of peoples or of one section of the city, but for the good of all Chicagoans — for the good of all Chicago.
CITY PLANNING CONFERENCE

It means betterment of general living conditions for our poor, reclaiming our lake front for the people, increasing our park areas and public playgrounds, creating additional bathing beaches and pleasure piers, and a scientific development of the arteries between the different sections of the city—north, south and west.

We repeat to Chicago what the Romans used to say: "A healthy body brings about a healthy mind." We declare that that is perhaps truer in regard to a community than it is of the individual.

Is it a mere coincidence that Mr. Burnham, whose ideas are presented in the Plan of Chicago, is the same man who planned the World's Fair of 1893, with its beautiful buildings and landscape effects; the same World's Fair which the people of the United States at that time watched with great doubt and misgiving, openly saying that Chicago might produce a fair on a large scale, but that it would lack artistic embellishment in every particular?

Had anything like it ever been produced before, or has anything equal to it been produced since? Is it a coincidence that many of the men who helped to achieve the success of the World's Fair of 1893, which placed Chicago in the ranks of metropolitan cities, are the same men who are today working for the Plan of Chicago?

Chicago is now recognizing that John V. Farwell, President of the Commercial Club, at a regular meeting on January 25, 1908, spoke truly in saying: "The Plan of Chicago is not only a Commercial Club project, but it is also in every sense a commercial project, for the very foundation and aim of the whole idea is to develop the enduring prosperity of Chicago; and in order to do that all the elements which go to make up a great city must be considered, just as all exalted characters must be well-rounded men, men who are developed on all sides of their character, physically, mentally, morally and spiritually. And so large cities, if they wish to be great, must develop
CITY PLANNING CONFERENCE

on all sides — must develop their commerce, their health, their beauty and their morals. This plan means all that to Chicago; and if the plan is carried out, it will give us a city in which the people, rich and poor, will prosper, and in which everybody will desire to live."

Right at that point, gentlemen, we discovered that the creation of a perfect city plan is only the first step toward success in this country. We realize very shortly and very acutely that success in city planning means not only the application of architectural and engineering genius, but in America, where nothing is done by imperial decree, success involves educational and promotional work of the most painstaking and scientific kind.

We saw that before we could widen streets, create parks or develop railway terminals where they should be, we would have to take our proposition to all the people, to argue before the tribunal of public opinion, to prove our case there and to awaken that interest in city planning which was necessary to bind to our cause the hopes and ambitions for betterment of a majority of the voters.

Without hesitation, because we knew our plan was right, that it was basically sound and that its adoption and completion would benefit every citizen of our city immeasurably, we tackled the tremendous task of arousing the interest and awakening the desires of our great cosmopolitan mass of two and a half millions of people.

We decided that the highest wisdom dictated an immediate advance upon the governmental center of Chicago. We conceived it to be right and proper, as the Plan of Chicago affected all the people of the city, that every class of our citizenship should be represented in the administration of plan affairs and have a voice in the development of that plan.

The Plan of Chicago was presented to the Mayor, with the suggestion that the City Council of the City of Chicago be requested to authorize the appointment of a commission, the purpose of which is clearly and concisely
set forth in the Mayor's message to the City Council on July 6, 1909. The last paragraph of this message contains the following: "Therefore, I respectfully recommend that your Honorable Body authorize the Mayor to appoint such a commission to be composed of members of your Honorable Body and citizens, whose duty it shall be to take up this question, to the end that the whole city and all elements in it may be fully informed as to what is contemplated in this plan for the future, so that an official Plan of Chicago may be produced that will have the endorsement and support of the entire municipality."

This statement at once announces the platform upon which the Commission, the personnel of which is broadly representative of the entire citizenship of Chicago, stands, and designates the task which our fellow citizens will expect us to accomplish.

The Chicago Plan Commission cannot enter into administrative functions, such as the inauguration of hygienic measures, or measures for the amelioration of living conditions of our people. These should be left to experts for study and recommendations, and to the proper authorities for execution.

The Commission believes that such meritorious and far-reaching questions as the proper regulation of tenements and the housing of the poor are in themselves so important as to demand special consideration as separate and distinct measures. In all its educational efforts it persistently calls attention by word and by picture to the importance of relieving congestion, facilitating transportation and providing means for the preservation of life.

No one has yet said that the adoption of a plan for the City of Chicago as outlined will in any way conflict with such worthy and necessary measures of relief. On the contrary, the execution of the Plan of Chicago will mean better air, better light, more breathing places and places of recreation. And therefore we argue it should have the active support and cooperation of all who are interested
CITY PLANNING CONFERENCE

in bringing a ray of sunshine into the lives of the less fortunate.

We endorse the view of the man who said, in discussing the duties of a city: "The efforts of municipalities should not be devoted to matters of hygiene alone. Attention should also be given toward providing relief for dull monotony, by providing and preserving natural spots of beauty and creating wider streets and open squares."

We take the position that to burden the Plan of Chicago with ideas foreign to the clear-cut issue the plan itself presents will endanger its final adoption. We are doing everything we can to attract public attention to the importance of favoring hygienic measures which would improve living conditions in our city. We are emphasizing that it is high time that we begin to take action in preserving human life. By preaching this doctrine we hope to create a public opinion so strong that the authorities will, as a matter of course, give the required legislation. Such legislation will confer the authority to condemn unsanitary districts for the purpose of re-arrangement, a power which many foreign cities now have, and under which they are operating with signal success.

I believe the experience of Chicago has demonstrated that there are four important legal obstacles to be removed before the science of city planning can be made most effective.

One of these is the law forbidding cities to condemn more property than is actually needed for an improvement. Our cities should have ample powers of excess condemnation, that they may take whatever wide belts of property may be advisable in any improvement district, holding same for re-arrangement and re-sale after the completion of the improvement has added largely to values.

Secondly, our cities should have the right to acquire property for the purpose of eliminating unsanitary districts.

Thirdly, the law should provide for issues of long-term
bonds, under proper restrictions, so that the citizens of the future, who will enjoy to the full the benefits of the great improvements, may be called upon to contribute toward paying for such improvements.

Fourth, to provide for economy, legal means should be had to stop realty speculation based upon the certainty of increased values growing out of improvements under a city plan, and also to prevent erection of costly buildings fronting thoroughfares to be widened, unless such buildings shall be erected to fit in with the new plans and thus be exempt from condemnation, thereby lessening expense to the city.

I may say here that experience has completely convinced me that, to succeed in city planning, the skill of the scientist and of the architect must be supplemented by all the skill, all the science, all the persistence and all the energy any city can command in a promotive way before any actual forward step toward realization can be taken.

In Europe the city planning architect has all the forces of the government at his back. In America he stands alone, and unless by proper promotive effort the American public can be brought to support him and endorse his ideas, no city plan can ever be realized.

Enthusiasm is necessary. No matter how much merit there may be in a city plan, it is imperative that its promoters shall be at all times full of enthusiasm in advancing its claims to recognition and adoption. The city plan promoter who does not feel enthusiastic should do as Scarboro advised: “Get out and rub up against some fellow who does.”

Optimism is another elemental necessity. Have the pessimists ever accomplished any very constructive work? Is it a sign of strength to doubt your own power and your own responsibilities? The optimist is the man who pushes forward himself, his business and his community.

One of our first steps to make the Plan of Chicago known was to issue, under the auspices of the Commission,
CITY PLANNING CONFERENCE

a booklet of some ninety pages, entitled "Chicago's Greatest Issue — An Official Plan." In that little book we set forth, in plain every-day language (avoiding all technical discourse), the objects of the Plan of Chicago.

We showed, first, that Chicago belongs to all her people, that the public property here is worth $420,000,000, and we sought to impress upon the average man his financial and personal interest in the welfare of Chicago. Then we told of the creation of the Plan of Chicago, and, feature by feature, chapter by chapter, we argued to the citizenship of Chicago the sanity and the wisdom of our plans. We distributed 165,000 copies of that booklet to citizens in all parts of the city.

Secondly, we organized a lecture bureau. The officers of the Commission hold themselves in readiness to give stereopticon talks upon plan purposes whenever and wherever bodies of citizens express interest. These talks are delivered before organizations, at their luncheon gatherings and banquets, before church clubs, before women's clubs, before lodges, before civic and industrial organizations of all kinds, and representing all nationalities, in all parts of Chicago.

We prepared more than one hundred stereopticon views of Chicago, of other American cities and of foreign cities, and these make their own appeal to our people to have negative conditions in Chicago remedied, that good health, happiness and prosperity may result.

Within a year of the opening of our active promotional work, we concluded that, as a city plan is fundamentally a matter of citizenship, and as it will require generations to carry the plan we have to completion, we ought, if we could, to make city planning a matter of fundamental education. We conceived the idea of capitalizing for our city planning effort the principle that "as the twig is bent the tree inclineth." We believed we ought to create an interest in city planning in the growing generations.

From that idea came a book which we know as our Plan
Manual, issued under the authorship of Mr. Walter D. Moody, Managing Director of the Chicago Plan Commission, and now being taught in the schools of Chicago to some 30,000 eighth-grade pupils. From that effort we are making, every year, thousands of young city planning enthusiasts.

We are building civic character and inspiring civic spirit in the youth of Chicago, and so, in the fullness of time, when the boys and girls we are now providing with instruction in the responsibilities of citizenship and the benefits of good city planning, reach maturity and assume the burdens of citizenship, the Plan of Chicago will have behind it an army of educated advocates of good civic order—an army drawn from the body of Chicago's best citizenship.

It should be said, as to our promotional methods in Chicago, that we have pursued a policy of openness and frankness with all people. We are showing the people of Chicago that we have no private axes to grind, that we are serving no special interests and that we have in view solely the creation of conditions which will enable Chicago to develop its future life in the best interests of all of its citizens.

Another feature of our work in Chicago is that of proceeding upon the assumption—and it is an assumption that I believe is amply justified—that the average man in an official position is a man devoted to the faithful performance of his duty and devoted to the welfare of his city.

I sincerely believe that the reason why many people interested in movements devoted to civic advance fail in their efforts is because they do not encourage the sympathy and gain the close acquaintance of the men who administer public affairs in the United States.

In Chicago we place implicit reliance upon our city officials. We cultivate official acquaintance in all city departments which affect our work; and the progress we have made has been possible because, during the life of our Commission, we have had in places of power men of bigness
CITY PLANNING CONFERENCE

in business capacity and of brain and of broad sympathies who have recognized the fundamental importance of city planning in the welfare of the people.

We have frequent luncheons to discuss city planning details and to project programs for immediate future effort, and to these luncheons we invite the administrative heads of our city government. We keep closely in touch with, and encourage the interest also of our state and county officials, from whom we have always had effective support.

Last January plan commission work had advanced to a point where the united and intelligent support of every branch of the official life of Chicago was necessary. The Commission gave a dinner to all national, state, county and city officials in Chicago, who number about four hundred. At this dinner the work and aims of the Commission were exploited and the immediate future needs emphasized. The meeting was attended by the Governor and the Mayor, and was one of the most important gatherings ever held in the history of the Chicago Plan movement. Its influence upon our work is inestimable.

We are believers, in Chicago, in get-together meetings, and we practice our belief in them all the time. The city planner and the public official must go hand in hand to get results. This course of putting trust in public officials is proving its wisdom every day. In evidence of this, I cite the fact that even now, though the Plan of Chicago has not been officially adopted, there is a tacit agreement under which the Plan Commission is being consulted before the beginning of any great city work coming within its scope.

In our work we have been fortunate in having the powerful support of the press in an unprecedented manner. It is to be hoped that the potent influence for good of the Chicago newspapers will ever be on the side of the Chicago Plan Commission until its labors have been brought to a successful finish.
CITY PLANNING CONFERENCE

The people of Chicago, like the people of most of our American cities, are preeminently practical in their minds and their purposes in life. Our mission, then, became that of showing them that instead of "Chicago Beautiful," the Plan of Chicago could better be described by the phrase "Chicago Practical."

We have undertaken a course of direct and homely argument in our educational propagandas. We are showing that a well-planned city means a city in which business can be most economically and successfully conducted. We are showing that good planning means good public health, long life and more leisure and contentment for all. We are pointing out that if we are to continue in Chicago as a strong, virile and capable people we must provide more light and air and more places of recreation by securing more and larger parks, more small parks in the congested districts, lake front playgrounds, and forest reserves for relief of the city dweller. We make it clear that these things are not fads, but vital necessities to the best interests of ourselves, our children and our children's children for all time.

We proclaim that there is another and deeper motive in planning for the future greatness of our city than its splendid material upbuilding. This, we declare, is of significance only as it expresses the actual social, intellectual and moral upbuilding of the people and so far as, in turn, it opens the way for further development of this higher type. City building means man building, we say. Who is there among us, we ask, who is not lifted above mere sordid industrial existence into the realm of the beautiful and ennobling things in life by attractive surroundings? Beautiful parks, fine monuments, well-laid-out streets, relief from noise, dirt and confusion—all these things, and many others contemplated in the Plan of Chicago, are, we tell the people, agencies that make not only the future greatness of the city but the happiness and prosperity of its people.

[ 288 ]
CITY PLANNING CONFERENCE

To those who review civic proposals chiefly from the commercial side, we show that in 1892 only 400,000 strangers visited Berlin. In 1909 the number exceeded 1,000,000. Twenty years ago Paris entertained twice as many foreigners as Berlin. In 1909 the French capital's lead was only twenty per cent. Berlin's total in 1909 was 1,150,000. Her annual increase in visiting tourists between 1892 and 1911 averages 39,000. Thus commercial ambition is in itself a sufficient reason for making our cities converts to the creed of proper planning.

New York, we argue, has capitalized its luxuries, its conveniences and its attractiveness, and has discovered that it pays in dollars and cents, just as Paris has learned that it can pay the interest on its municipal bonds from the money left by American tourists.

The traveler seeks the places which provide the most comforts and beauty. He may visit London, but he spends weeks in Paris. He may take a trip to Constantinople, but he tarries in Berlin. There is today a growing competition among the cities for the transient trade, and the metropolis that has the best to offer gets the business. Therefore, if every consideration of patriotism and duty were set aside, the fact would still remain that the City Beautiful is a practical proposition.

We argue that diagonal streets, which we want created for Chicago, are time-savers, and that, to the extent that they save time in transportation of people and merchandise, they lengthen the lives and increase the profits of our people. We argue that orderliness is the best investment a city can make, and we prove the truth of our arguments.

Our appeal, it must be understood, is not by any means entirely a commercial appeal. It is a practical appeal, first, to secure the interest and the sympathy of a most practical people. Secondly, and in a larger way, our appeal is a human appeal, a moral appeal, an appeal to make Chicago better not for the money that is in it, but for [239]
the sake of the higher mental, moral and physical people that a perfectly arranged city will produce. That is the kind of appeal worth while. It is the kind that wins in Chicago, and it is the kind that will win anywhere in America. Men in the mass will do more for ideals than they will do for dollars.

What has been the result? What have we gained by our appeals? What is the outlook for the Plan of Chicago? In the first place, we have, within the last two years, overcome any misapprehension of the people of Chicago as to the purpose of the Plan of Chicago. We have, secondly, created a vivid public interest in the welfare of Chicago. We have aroused the old "Chicago Spirit," of which we of this city are so proud. We have made two millions of people think, and we have made them think rightly and deeply, concerning the welfare of this great city and its people. We have organized a movement with an impetus of great force for the rehabilitation of the present Chicago, and for the sane direction of the development of the future city.

We clearly see victory ahead of the Chicago Plan Commission. We have overcome public indifference. We have awakened the people. We have shown that the plan is a vital issue. We have aroused the civic conscience of Chicago. We have won the confidence of administrative Chicago.

We have taken the Plan of Chicago out of the atmosphere of a "picture plan," and laid for it a foundation in the minds and hopes of our people upon which will surely be built the structure which we believe will make Chicago the most scientifically arranged, the most economically administered and the most healthful and attractive great city in America.

We are at the threshold of the first major project for the realization of the Plan of Chicago. The first street construction work, the widening of Twelfth Street, went to the people upon referendum at the election in November,
1912, and the people gave us a fine majority for a city-wide bond issue to make that work possible.

By that improvement we will open a broad way from the crowded Ghetto district of Chicago to the Lake front. We will prove by that work that the Plan of Chicago is not a rich man's scheme, but a great, big, deserving issue in behalf of all classes of our people. The importance of the Twelfth Street improvement will be apparent in the statement that Twelfth Street is the south base-line of the two-square-mile quadrangle which forms the foundation of the street circulatory system of the Plan of Chicago. It is proposed to make Twelfth Street a focal point for all railroad terminals. A careful study of the railroad terminals has just now been finished. Suggestions will be called for and public hearings held.

Besides the Twelfth Street project, we are about to go to a public hearing in our Board of Local Improvements for the widening and extension of Michigan Avenue. Chicago is going to create in that thoroughfare a street which will deservedly become one of the most famous streets in the world. We have no doubt of the success of this major move for the betterment of Chicago.

We believe we have, in conjunction with the city and the South Park Commissioners, Mr. E. B. Butler and a committee of citizens headed by Mr. Lessing Rosenthal, accomplished a magnificent work for the future of our city in the negotiations with the Illinois Central Railway whereby it relinquishes its riparian rights along our southern Lake shore. This settlement opens the way to have the $4,500,000 Field Columbian Museum erected upon the Lake front, at the foot of Twelfth Street, facing Grant Park. It also prepares the way for the creation of 1500 acres of park lands along our Lake Shore, covering the five-mile distance between Grant and Jackson Parks.

These are works which ordinarily would consume a long period of time in the development of a city, and it must be remembered that the Chicago Plan Commission has been
organized only a little over three years. It must be understood that these tasks, involving a thousand legal, architectural and engineering problems, have not been accomplished without a tremendous outlay of effort. We have labored unceasingly, and have kept an accurate record of our work from day to day. Besides all the educational work we have done, our officials have participated in more than 1200 plan conferences.

We believe that a complete understanding of the benefits the plan proposes will revive the "Chicago Spirit of the World's Fair days" — that "do things" spirit which, as history records, inoculates Chicagoans every once in so often — the spirit which in the past has many times spurred us to splendid achievement for the good of all our citizens and for the glory of our city.

Twenty years of industrial prosperity and progress have passed since the last drum-beat was sounded which martialed in splendid array the "Chicago Spirit," and which, almost by miracle, put to rout the fears, doubts and difficulties of the early World's Fair days and created in their stead optimism, faith and dazzling achievement.

We prophesy that the time has come in Chicago for history to repeat itself; that the "every once in a while" period for Chicagoans to rally and march forward under the banner of the "Chicago Spirit" has completed two revolutions; now we hear more insistently, more clearly, the new call — the call of the Plan of Chicago; a call fraught with significance such as the city has never realized; a call of wisdom, economy and benefit of so great importance as to outshine all that has gone before it and to insure all of the public good that is to come.

Finally, we admonish our people that it behooves us, as citizens of this great metropolis, to lose no time in buckling on our armor and marching fearlessly to the front; that there is no time to hesitate.

There is perhaps no greater inspiration for those who are to-day engaged in the work of making Chicago still
greater than a look backward in its history, and thus we urge our people to respond to this inspiration, because the benefits that will accrue to this city will be inestimable. We believe that still more powerful and inspiring will be the example of united effort, permeated by unswerving faith in the destiny of our city. Then will the civic spirit of 1871 and 1893 animate the younger generation, to whose shoulders the old war-horses of the development of Chicago, as they depart with honors, may confidently entrust the burden they have borne.
BUSINESS SESSION

The Conference met in executive session at half-past four on May 7, Frederick Law Olmsted presiding.

REPORT OF THE GENERAL COMMITTEE ON THE CONSTITUTION

At the last Conference the Executive Committee submitted a draft of a constitution, and some amendments to that draft were also submitted to the Conference; but instead of expressing any opinion as to the desirability of adopting a constitution,—we have so far been proceeding entirely in an informal manner,—the whole matter was referred back to the General Committee which was elected at the last Conference.

The General Committee considered the constitution and amendments, at a meeting since this present Conference opened, and a vote was reached that there did not appear to be any particular advantage in adopting the machinery of a constitution and by-laws. The committee therefore recommends no action.

Voted, That the recommendation of the General Committee be accepted and approved.

REPORT OF THE COMMITTEE ON LEGISLATION

This report takes the form of several drafts which are recommended as calculated to facilitate the execution of city plans. The measures were prepared for previous [247]
CITY PLANNING CONFERENCE

Conferences, but have been added to and amended and are now submitted for action by the Conference.

Voted, That the report be received and approved and that the drafts be printed as a part of the Proceedings.

CITY PLANNING LEGISLATION

*An act entitled “An act for the government of cities; creating and regulating a City Planning Department, giving it jurisdiction, extending it over the city and for three miles beyond the city limits, and regulating the laying out of plans of lots within the limits of the city.”*

Section 1. Be it enacted, etc., That an additional executive department in the government of cities is hereby created, to be known as the Department of City Planning, which shall be in charge of a City Planning Commission, consisting of nine persons, to be appointed by the mayor, to serve during his term in office and until their successors are duly appointed and qualified, and who may or may not be residents of the city. An appointment to fill a casual vacancy shall be only for the unexpired portion of the term. Three shall be a quorum. They may make and alter rules and regulations for their own organization and procedure, consistent with the ordinances of the city and the laws of the commonwealth. They shall serve without compensation, and make, annually, to the mayor, a report of their transactions and recommendations. They may employ engineers and other persons, whose salaries and wages, and other necessary expenses of the commission, shall be provided for, in the discretion of councils, by the proper appropriations and ordinances.

Sec. 2. The clerks of council shall, upon introduction, furnish to the City Planning Commission, for its consideration, a copy of all ordinances and bills relating to the location of any public building of the city, and to the location,
extension, widening, enlargement, ornamentation and parking of any street, boulevard, parkway, park, playground or other public grounds, and to the vacation of any street, or other alteration of the city plan of streets and highways, and to the location of any bridge, tunnel or subway, or of any surface, underground or elevated railway. The said commission may make a report or suggestion in relation thereto, if it deems a report necessary or advisable, for the consideration of councils. All such reports when delivered to the clerk of councils shall be for the information of the public as well as of councils, and the commission shall furnish to any newspaper of the city, on request, for publication, a copy of any such report.

Sec. 3. The City Planning Commission may make, or cause to be made, and lay before councils, and in its discretion cause to be published, a map or maps of the city, or any portion or portions thereof, including territory extending three miles beyond the city limits, showing the streets and highways and other natural or artificial features; and also locations proposed by it for any new public buildings, civic center, street, parkway, boulevard, park, playground, or any other public ground or public improvement; or any widening, extension or relocation of the same, or any change in the city plan, by it deemed advisable. And it may make recommendations to councils, from time to time, concerning any such matters and things aforesaid for action by councils thereon; and, in so doing, have regard for the present conditions and future needs and growth of the city, and the distribution and relative location of all the principal and other streets and railways, waterways and all other means of public travel and business communications, as well as the distribution and relative location of all public buildings, public grounds and open spaces devoted to public use, and the planning and laying out for urban uses of private grounds brought into the market from time to time.

Sec. 4. The City Planning Commission may make
City Planning Conference

Recommendations to any public authorities, or any corporations or individuals, in said cities, with reference to the location of any buildings, structures, or works to be erected or constructed by them.

Sec. 5. All plans, plots, or re-plots of lands laid out in building lots, and the streets, alleys or other portions of the same intended to be dedicated to public use, or for the use of purchasers or owners of lots fronting thereon or adjacent thereto, and located within the city limits, shall be submitted to the City Planning Commission and approved by it before it shall be recorded. And it shall be unlawful to receive or record such plan in any public office unless the same shall bear thereon, by endorsement or otherwise, the approval of the City Planning Commission. The disapproval of any such plan by the City Planning Commission shall be deemed a refusal of the proposed dedication shown thereon. The approval of the commission shall be deemed an acceptance of the proposed dedication; but shall not impose any duty upon the city concerning the maintenance or improvement of any such dedicated parts, until the proper authorities of the city shall have made actual appropriation of the same by entry, use or improvement; and owners and purchasers shall be deemed to have notice of the published plans, maps, and reports of the commission affecting such property within its jurisdiction.

An act relative to taking of remnants of land in certain cases by right of eminent domain.

Section 1. Any city in the state, so far as the territory within its limits is concerned, may take in fee by right of eminent domain the whole of any estate, part of which is actually acquired for the laying out, alteration or location by it of any public highway, square, open space, park, parkway or playground, if the remnant left after taking such part would, from its size, shape or location, be unsuited for the erection of suitable and appropriate build-
ings, or for such other use, as, under the circumstances, it
would otherwise be reasonably suited to; and if public con-
venience and necessity require such taking; provided, that
the ordinance of the city providing for such taking of said
remnant, shall state that such remnant was unsuited as
aforesaid for some one or more of the reasons aforesaid,
and that public convenience and necessity does require such
taking.

Sec. 2. The provisions of law, at present in force in
this state, with regard to the taking of property by emi-
inent domain, and of notice, hearing and compensation in
such cases, shall apply to and be in force with regard to
the taking of remnants, as aforesaid.

Sec. 3. Said remnant, so acquired, may, either in con-
nection with other remnants or otherwise, be resold by said
city, with such restrictions in the deeds of resale as may
necessary and proper to protect said public highway,
square, open space, park, parkway, or playground, their
environs, the preservation of the view, appearance, light,
air, health or usefulness thereof, whenever the state or city
shall by statute or ordinance so provide.

An act authorizing cities to acquire land, within or with-
out their limits, for public parks, parkways and play-
grounds; to acquire neighboring property within 200
feet of property so taken and to resell the same with
restrictions; requiring that the proceeds be used for
the purchase of private property for parks, parkways
and playgrounds; and providing for compensation for
private property taken.

Section 1. It shall be lawful for, and the right is hereby
conferring upon, the cities of this commonwealth to pur-
chase, acquire, enter upon, take, use and appropriate in
fee simple, private property, for the purpose of making, en-
larging, extending and maintaining public parks, parkways,
and playgrounds within or without the corporate limits of
[251]
such cities, whenever the councils thereof shall by ordinance or joint resolution determine thereon; provided, that where such private property is outside of the city, it may be annexed thereto by ordinance of said city.

Sec. 2. It shall be lawful for, and the right is hereby conferred upon, cities of this commonwealth to purchase, acquire, enter upon, take, use, and appropriate neighboring private property, within two hundred feet of the boundary lines of such property so taken, used and appropriated for public parks, parkways, and playgrounds, in order to protect the same by the resale of such neighboring property with restrictions, whenever the councils thereof shall, by ordinance or joint resolution, determine thereon; provided, that in the said ordinance of joint resolution, the councils thereof shall declare that the control of such neighboring property, within two hundred feet of the boundary lines of such public parks, parkways, or playgrounds, is reasonably necessary, in order to protect such public parks, parkways, or playgrounds, their environs, the preservation of the view, appearance, light, air, health or usefulness thereof.

Sec. 3. It shall be lawful for, and the right is hereby conferred upon, the cities of this commonwealth to resell such neighboring property, with such restrictions in the deeds of resale in regard to the use thereof as will fully insure the protection of such public parks, parkways and playgrounds, their environs, the preservation of the view, appearance, light, air, health and usefulness thereof, whenever the councils thereof shall, by ordinance or joint resolution, determine thereon.

Sec. 4. The taking, using and appropriating, by the right of eminent domain, as herein provided, of private property for the purpose of making, enlarging, extending and maintaining public parks, parkways and playgrounds, and of neighboring property, within two hundred feet of the boundary lines of such public parks, parkways and playgrounds, in order to protect such public parks, park-
ways and playgrounds, their environs, the preservation of the view, appearance, light, air, health, and usefulness thereof, by reselling such neighboring property, with such restrictions in the deeds of resale as will protect such property, so taken for the aforesaid purpose, is hereby declared to be taking, using and appropriating of such private property for public use.

Sec. 5. The proceeds arising from the resale of any such property so taken, shall be deposited in the treasury of said cities, and be subject to appropriation by the councils of said city, for the purchase and acquisition of private property for public parks, parkways and playgrounds, and for no other purpose.

Sec. 6. Said property may be acquired by gift, purchase or eminent domain. If acquired by eminent domain, the provisions of law at present in force in this state, with regard to the taking of property by eminent domain, and of notice, hearing and compensation in such cases, shall apply to and be in force with regard to such taking.

An act to create metropolitan districts of cities of the first and second classes and the areas within twenty-five miles of the limits thereof, to provide for the appointment of Metropolitan Planning Commissions for such districts, to prescribe their powers and duties, and to provide for their expenses.

Section 1. Be it enacted, etc., That, in order to secure coördinated comprehensive plans for systems of roads and thoroughfares, street railway systems, smoke prevention, of parks and parkways, of water supply, of sewerage and sewage disposal, of collection and disposal of garbage, of playgrounds, civic centers, and other improvements as hereinafter provided, for cities of the first and second class and the areas within twenty-five miles of the limits thereof, and in order to prevent waste by the unnecessary duplication of such public utilities, the areas including cities of the first
and second class and that within twenty-five miles of the limits of said cities shall be denominated the Metropolitan Districts of cities. When any political unit less than a county is partly within and partly without the twenty-five-mile limit, the whole of such political unit shall be regarded as within the Metropolitan District. The term "political unit" as used in this act shall include cities of the first, second and third classes, townships of the first and second classes, boroughs and poor districts, but not others. Where two or more cities of the first or second class are within twenty-five miles of each other, they shall be embraced in the same district, and the district shall consist of the areas of all political units within twenty-five miles of the limits of any of the several cities of the first and second class within said district.

Sec. 2. There shall be an executive department created for every Metropolitan District, to be known as the Department of Metropolitan Planning of District, which shall be in charge of a Metropolitan Planning Commission.

Sec. 3. The Metropolitan Planning Commission shall be composed of the Mayors, the Directors of the Departments of Public Works and the Chief Engineers of the cities of the first and second class within the district; the Mayors of cities of the third class; one member from each of three of the Township Commissions of Townships of the first class within the district; one member from each of three of the townships of the second class, within the district; the Chief Burgess of three of the boroughs within the district; and three others who may or may not be residents of the district or state, and who may or may not hold other public office whether for profit or otherwise. The said three Presidents of Commissions of Townships of the first class and of townships of the second class, the said Chief Burgesses, and the said three citizens shall be selected by the Governor. All members shall be appointed by the Governor, to serve during his term of office and until their successors are duly appointed and qualified, except in the case of ex-officio
members, who shall serve during their respective terms of office. All members by virtue of their office shall be ex-officio members. An appointment to fill a casual vacancy shall be for the unexpired portion of the term. Ten shall constitute a quorum. The Metropolitan Planning Commission shall make and alter all rules and regulations for its own organization and procedure consistent with the laws of the commonwealth. From its own members it shall choose a President and Vice-President. Each member shall serve without compensation. The commission shall employ a secretary, engineers and other experts and persons, whose salaries and wages, as well as all other necessary expenses of the commission and members thereof, shall be provided for as hereafter set forth.

Sec. 4. The Metropolitan Planning Commission shall make or cause to be made and laid before the respective governmental authorities of the district, and in its discretion cause to be published a map or maps of the entire district or any portion or portions thereof showing any or all systems of roads and thoroughfares, street railway systems, smoke prevention, of parks, parkways and playgrounds, of water supply, of sewage and sewage disposal, of collection and disposal of garbage, of civic centers, or of other natural and artificial physical features of the district; and of locations proposed by it for any new or enlarged thoroughfares, street railway system, parks, parkways, playgrounds, water supply systems, sewers, sewage disposal plants, garbage disposal plants and civic centers, or any other public improvement that will affect the character of the district as a whole, or more than one political unit within the district; or any widening, extension or relocation of the same, or any change in the existing city, township or borough plans, by it deemed advisable. And
it may make recommendations to the respective governmental authorities, from time to time, concerning any such matters or things aforesaid for action by the respective legislative, administrative or governmental bodies thereon; and, in so doing, have regard for the present conditions and future needs and growth of the district, and the distribution and relative location of all the principal and other streets and railways, waterways and all other means of public travel and business communication, as well as the distribution and relative location of all public buildings, public grounds and open spaces devoted to public use, and the planning and laying out for urban uses of private grounds brought into the market from time to time.

Sec. 5. Any governmental unit within any Metropolitan District may request the Metropolitan Planning Commission of that district to prepare plans concerning any of the subjects set forth in section 4 of this act, whereupon it shall be the duty of the commission to prepare such plans with dispatch.

Sec. 6. The Metropolitan Planning Commission may make recommendations to any public authorities, or any corporation or individual, in said districts with reference to the location of any buildings and structures, to be constructed by them.

Sec. 7. The plans so made and laid before the respective governmental authorities by the Metropolitan District Planning Commission shall be considered by such respective authorities and followed in so far as shall be determined by each authority.

Sec. 8. All expenses of such commission shall be divided among the respective governmental units within such district according to the population thereof at the last preceding decennial census of the United States, and, when certified by the president and secretary of said commission, shall be a charge on the treasury of each governmental unit of the district and its immediate payment shall be at once
provided for by it; otherwise the commission shall have power to secure immediate payment by suits of mandamus.

An act to empower cities to create from one to four districts within their limits and to regulate the heights of buildings to be thereafter constructed within each district.

Section 1. Be it enacted, etc., That, in order to protect the health of the citizens of this commonwealth and to promote the safety of public and private property, the power is hereby conferred upon every city by ordinance to create within its limits from one to four districts for the purpose of adopting regulations concerning the heights of buildings in each district.

Sec. 2. Every city is hereby empowered by ordinance to regulate the heights of buildings within such districts; provided, that no building over two hundred and fifty feet high shall be permitted to be hereafter constructed within any city.

Sec. 3. In prescribing the regulations for any district the city may fix either an absolute limit of height for the whole or a part of a building based upon the width of the street or streets, upon which it abuts, or some other system, and the city may provide for one system in one or more districts and a different system in others, but the system prescribed by any district must be uniformly applied throughout that district.

Sec. 4. The said regulations may further provide for a greater elevation of buildings which receded a certain distance from the building line of the street.

Sec. 5. The said regulations within each district may be made to apply to the alteration of existing buildings as well as to the construction of new buildings.

Sec. 6. No permit for the erection or alteration of any building contrary to the terms of such regulations shall be issued.

[ 257 ]
An act to authorize the platting by cities of civic centers or parts thereof.

Section 1. Be it enacted, etc., That in order to further the creation of civic centers, every municipality may plat upon its general plan land proposed to be acquired for parks or playgrounds, and such property abutting on such parks or playgrounds, or on the streets surrounding them, as it may propose to acquire for the erection of municipal buildings of all kinds.

Sec. 2. Every municipality may also plat upon its general plan ground abutting on any park or playground or on the streets surrounding such parks or playgrounds proposed to be acquired by any duly authorized state or county agency, of which due notice is given by the proposed state or county agency to said municipality.

Sec. 3. After the general plan or any part thereof has been duly platted in pursuance of authority of the councils of such municipality, it shall not afterwards be altered without the consent of councils. No person shall hereafter be entitled to recover any damages for any buildings and improvements of any kind or any interest therein which shall or may be placed or constructed upon or within the lines of the park or playground or property abutting thereon or on the streets surrounding such park or playground, after the same shall have been so platted.

An act relating to the platting of reservations without specifying their proposed use.

Section 1. It shall be lawful for, and the right is hereby conferred upon, each city of this state, to plat upon its official city plan, land or any interest therein for any lawful public use, and it shall not be necessary to designate, specify or determine the particular public use to which said land or interest therein is to be put; but such intended public use may be so stated.

[ 258 ]
CITY PLANNING CONFERENCE

Sec. 2. Said land or interest therein may be used after purchase or proceedings of eminent domain, from time to time, for any public use or uses; and may at any time be designated and appropriated to any specific public use, or uses, whether or not such use is that stated in the platting, if in fact there was such a statement.

Sec. 3. The proceedings in eminent domain shall be the same as in other such proceedings.

An act relative to the establishment of building lines.

Section 1. The word highway, used in this act, means any public highway, esplanade, boulevard, parkway, square or street, or any part or side, or part of the side, of any of the same.

Sec. 2. Any city in this state may provide, with regard to any building line to be established on any highway therein, that thereafter no building or other structure shall be re-erected, re-constructed, or substantially repaired, and that no new building or other structure or part thereof shall be erected within said lines.

Sec. 3. This act shall not be construed so as to limit or abridge any right heretofore conferred or had by any city in this state to establish building lines or take property or any interest therein by eminent domain.

Sec. 4. Said building line shall be established in such cases, in the same manner in all respects as in the case of other building lines; and the owner of land affected thereby shall have the same rights to notice, hearing and compensation as in such cases.

Sec. 5. When the owner re-erects, re-constructs or substantially repairs his building, he shall then be entitled to damages, which shall be assessed and paid in the manner provided by law, for proceedings in eminent domain.
Your committee beg to report that owing to the delay on the part of Congress in providing funds for federal participation in the Panama-Pacific Exposition, no specific progress is to be recorded toward the realization of a creditable municipal exhibit at San Francisco, except as follows:

The management of the Panama-Pacific Exposition has agreed to feature exhibits illustrating municipal advancement, though definite plans have not yet been formulated. Both the American Civic Association and the National Municipal League have expressed themselves as favorable to such a project, and it is believed that their cooperation can be counted upon when the proper time arrives. The committee therefore recommends that the Panama-Pacific Exhibit Committee be continued.

Voted, That the report of the committee be accepted and that the committee be continued.

REPORT OF THE COMMITTEE ON FINANCE

At the meeting of the General Committee during this Conference plans have been considered for the financing of this Conference. From year to year these finances have been uncertain; the difficulties in the way of the secretary acting efficiently have been very great. At certain times when it seemed even desirable to send out several letters he has felt that the expense was not justified. The chief source of revenue of the committee has been the dues of members at $5 a year, but the committee now feels that in addition to these dues it is desirable to establish a class of members who will contribute $25 a year, and that this class may include organizations as well as individuals.

Voted, That the report be accepted and approved.
RESOLUTIONS ADOPTED BY THE CONFERENCE

Resolution of Thanks

The following resolution is recommended by your Committee on Resolutions for adoption by this Conference:

Be it resolved, That the National Conference on City Planning at this, its Fifth Annual Meeting, hereby expresses and tenders its thanks and appreciation to the hosts of the Conference, and especially to the Chicago Plan Commission and its managing director, Mr. Walter D. Moody, for the excellent and efficient work in behalf of the Conference; to the presiding officers at the various sessions; to the contributors of the formal papers, and to the leaders in the discussions; to the retiring Executive Committee, and particularly to the esteemed and energetic secretary of the Conference, Mr. Flavel Shurtleff; to the Chicago daily press for the sympathetic and adequate reports of the sessions; to the management of the Hotel La Salle.

Voted, That the resolution of thanks be adopted.

City Planning Principles

Whereas, this Conference at its Third Annual Meeting in Philadelphia, and its Fourth Conference in Boston, passed resolutions which refer to principles of city planning; and

Whereas, there does not seem to exist any accepted comprehensive statement of such principles,

Be it resolved, That the Executive Committee be and hereby is instructed to establish committees for each phase or element of the general problem of city planning and instruct each of them to prepare statements of basic principles for submission to the next annual conference.

Voted, That this resolution be received and that the [ 261 ]
Executive Committee be empowered to take such action as seems to it fitting thereon.

BUILDING HEIGHT REGULATIONS

Whereas, the rights of landowners are frequently infringed and the value of land and buildings impaired by the erection of buildings of excessive height or otherwise unsuitable.

Whereas, the erection of such buildings is often forced upon landowners by the absence of such regulations as will adequately conserve their right to proper light, air and access; therefore be it

Resolved, That regulations governing the construction of buildings should be framed upon the principle that no man should so use his land as to injure his neighbors; that, subject to the limitations imposed by existing conditions due to previous lack of regulation, the construction of buildings should be so regulated in respect to their height and area that any section of the city might be completely covered with buildings of the maximum height and area permitted in such section without impairing the enjoyment of such light, air and access by all of them as may be necessary for the most profitable use of the entire section.

Voted, That the resolution be received and submitted to the Executive Committee for consideration.

CUSTODY OF CITY PLAN STUDIES

May 1, 1913.

FLAVEL SHURTLIFF, Esq., Secretary,
National Conference on City Planning,
In session at Chicago, Ill.

DEAR Sir:
As I am prevented by duties here at the University at this time from being present at the Conference, may I, through you, and on behalf of the Harvard School of Land-
scape Architecture, extend the following offer to the Conference?

If the Conference is willing to place in our care, as a loan collection, the completed competition drawings and accompanying papers recently received by its Committee on the Competition, we will be responsible for this valuable material being housed in a fireproof building and carefully preserved in such a way that it will be readily accessible to members of this Conference and others at all ordinary hours.

I have conferred with Mr. John Nolen, Chairman of the Committee on this Competition, who says he favors this disposal of the Competition drawings, and that from informal conference with other members of the committee he is sure that it will be approved by the committee as a whole.

I may add that a similar arrangement has for some time been in force with a comparable organization to the satisfaction of both parties to it, and that the plans so loaned will not be stowed away as dead archives but be of continued service in connection with instruction and research in City Planning, and thus be constantly further promoting the general objects of our National Conference.

Yours very truly,

J. S. Pray,

Chairman, Harvard School of Landscape Architecture.

Voted, That the offer of the Harvard School of Landscape Architecture be accepted.

A letter from Mr. John H. Ryder, President of the American League of Municipalities, was read by President Olmsted, making the suggestion of combining national organizations whose purposes were much the same, and suggesting further that a committee be appointed by the Conference on City Planning to be present at the convention of the American League of Municipalities.

[263]
CITY PLANNING CONFERENCE

After discussion it was

Voted, That the President of the Conference on City Planning should be given power to appoint a committee to represent the Conference at the convention of the American League of Municipalities, and that the subject of consolidation of the City Planning Conference with other kindred organizations should be left with the Executive Committee to consider and report at the next Conference.

Invitations to the Conference of 1914 were received from Detroit, Toronto, St. Louis, Atlanta, New York City, Dubuque, Louisville, and Memphis, and from Los Angeles and San Francisco for 1915.
THE ORGANIZATION OF THE SIXTH CONFERENCE

At the opening session of the Conference a nominating committee was appointed which submitted nominations for both the Executive and the General committees. Additions to the latter were made from the floor.

Voted: That the report of the Committee on Nominations, as amended, together with the nominations from the floor, be accepted.

Voted: That the Executive Committee may have power to add one to its number from the city which entertains the Conference.

EXECUTIVE COMMITTEE

Frederick Law Olmsted, Brookline, Mass.
Nelson P. Lewis, 277 Broadway, New York City.
George E. Hooker, City Club, Chicago, Ill.
Lawrence Veiller, 105 East 22d St., New York City.
Hon. Frederic C. Howe, People’s Institute, New York City.
Hon. Lawson Purdy, Hall of Records, New York City.
Richard B. Watrous, Union Trust Bldg., Washington, D. C.
E. P. Goodrich, 35 Nassau St., New York City.
George S. Webster, City Hall, Philadelphia, Pa.
Edward H. Bennett, Railway Exchange, Chicago, Ill.
J. P. Hynes, 199 Yonge St., Toronto, Canada.
CITY PLANNING CONFERENCE

HENRY C. WRIGHT, 17 Madison Ave., New York City.
CHARLES MOORE, Security Trust Co., Detroit, Mich.
GEORGE B. FORD, 347 Fifth Ave., New York City.

GENERAL COMMITTEE

ARNOLD W. BRUNNER ............ New York City
FRANK B. WILLIAMS ............ New York City
RICHARD M. HURD .............. New York City
BENJAMIN C. MARSH ............ New York City
JOHN IHLDER .................. New York City
CASS GILBERT ................. New York City
RALPH A. CRAM ............... Boston, Mass.
J. RANDOLPH COOLIDGE, JR. .... Boston, Mass.
ALLEN B. POND ............... Chicago, Ill.
WALTER D. MOODY ............. Chicago, Ill.
GLENN BROWN ................ Washington, D. C.
FRANK BALDWIN ............... Washington, D. C.
D. J. HAFF .................. Kansas City, Mo.
J. C. NICHOLS ................ Kansas City, Mo.
FREDERICK W. CLIFFORD ....... Minneapolis, Minn.
GEORGE E. KESSLER ........... St. Louis, Mo.
JOHN H. GUNDLACH ............ St. Louis, Mo.
MAJ. JOSEPH W. SHIRLEY ...... Baltimore, Md.
ALFRED C. CLAS ............... Milwaukee, Wis.
MUNSON HAVENS ............... Cleveland, O.
HON. W. A. MAGEE ............ Pittsburgh, Pa.
E. DRUMMOND LIBBEY ......... Toledo, O.
CHARLES MULFORD ROBINSON .... Rochester, N. Y.
HENRY L. CORBETT ............ Portland, Ore.
FREDERICK L. FORD ........... New Haven, Ct.
DANA W. BARTLETT ............ Los Angeles, Cal.
WILLIS POLK ............... San Francisco, Cal.
JAMES D. PHELAN ............ San Francisco, Cal.
JOHN C. DANA ............... Newark, N. J.
DR. MATTHEW D. MANN ....... Buffalo, N. Y.
THOMAS R. KIMBALL .......... Omaha, Neb.
ALFRED BETTMAN ............ Cincinnati, O.
T. GLENN PHILLIPS ......... Detroit, Mich.
A. L. BROCKWAY ............. Syracuse, N. Y.
CHARLES H. HODGETTS ....... Ottawa, Canada
CITY PLANNING CONFERENCE

HON. ARSENE LAVALLÉ ..........Montreal, Canada
LESLIE BOYD .................Montreal, Canada
J. C. WALSH ..................Montreal, Canada
S. MORLEY WICKETT ..........Toronto, Canada
C. J. ANDERSON ..............Toronto, Canada
HON. JAMES W. DAVIDSON ......Calgary, Canada
J. C. MURPHY .................Louisville, Ky.
VINCENT STEVENS ..............Akron, O.
<table>
<thead>
<tr>
<th>TOPICAL INDEX</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition of Land by Purchase</td>
<td>48</td>
</tr>
<tr>
<td>Acquisition of Land by Condemnation</td>
<td>48</td>
</tr>
<tr>
<td>For Structures</td>
<td>49</td>
</tr>
<tr>
<td>For Streets and Parks</td>
<td>49</td>
</tr>
<tr>
<td>Acquisition of Land by Dedication</td>
<td>50</td>
</tr>
<tr>
<td>Acts Proposed by Committee on Legislation</td>
<td>248 ff.</td>
</tr>
<tr>
<td>Administrative Agencies and City Plan Commissions</td>
<td>74-75</td>
</tr>
<tr>
<td>Advantages of Special Assessment Method</td>
<td>150, 153, 155</td>
</tr>
<tr>
<td>Aesthetic Considerations in City Planning</td>
<td>32, 41, 42</td>
</tr>
<tr>
<td>Alberta, Canada, Town Planning Act of 1913</td>
<td>63 ff.</td>
</tr>
<tr>
<td>Appointment of City Plan Commission</td>
<td>79</td>
</tr>
<tr>
<td>Archives of a City Plan Office</td>
<td>3-5</td>
</tr>
<tr>
<td>Arlington Street Extension in Boston</td>
<td>21</td>
</tr>
<tr>
<td>Assessment Districts in Kansas City</td>
<td>145</td>
</tr>
<tr>
<td>Assessments for Special Benefit</td>
<td>138</td>
</tr>
<tr>
<td>Kansas City, Mo.</td>
<td>141 ff., 157-158</td>
</tr>
<tr>
<td>Indianapolis</td>
<td>154-155</td>
</tr>
<tr>
<td>Athletic Fields, Location of in Chicago Plan</td>
<td>102</td>
</tr>
<tr>
<td>Benefit Assessments</td>
<td>60, 61</td>
</tr>
<tr>
<td>Benefit Assessments in Kansas City</td>
<td>141 ff.</td>
</tr>
<tr>
<td>Block Units</td>
<td>39</td>
</tr>
<tr>
<td>Buffalo City Plan Commission Ordinance</td>
<td>90</td>
</tr>
<tr>
<td>Building Districts, An Act Creating</td>
<td>257</td>
</tr>
<tr>
<td>Building Height and Lot Values in New York City</td>
<td>219</td>
</tr>
<tr>
<td>Building Height Commission, New York City</td>
<td>24, 217</td>
</tr>
<tr>
<td>Building Height Regulation</td>
<td>218</td>
</tr>
<tr>
<td>Building Height Regulation in Chicago Plan</td>
<td>103</td>
</tr>
<tr>
<td>Building Lines, An Act Relative to</td>
<td>259</td>
</tr>
<tr>
<td>Burnham, Daniel H., and Chicago City Plan</td>
<td>229</td>
</tr>
<tr>
<td>Chicago Achievement in Plan Execution</td>
<td>240-241</td>
</tr>
<tr>
<td>Cincinnati’s Park System</td>
<td>155-156</td>
</tr>
<tr>
<td>Circulation, The Problem of in the City Planning Study</td>
<td>191-193</td>
</tr>
<tr>
<td>Cities with Plan Commissions</td>
<td>19-20</td>
</tr>
<tr>
<td>Cities with Plan-promoting Organizations</td>
<td>18</td>
</tr>
<tr>
<td>Cities with Plans</td>
<td>19</td>
</tr>
<tr>
<td>City Plan Office</td>
<td>3</td>
</tr>
<tr>
<td>As Custodian of City Plan</td>
<td>3, 4</td>
</tr>
<tr>
<td>As Interpreter of City Plan</td>
<td>6</td>
</tr>
<tr>
<td>As Amender of City Plan</td>
<td>7</td>
</tr>
<tr>
<td>TOPICAL INDEX</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------------</td>
<td>------</td>
</tr>
<tr>
<td>Civic Center Building in Cleveland</td>
<td>22</td>
</tr>
<tr>
<td>Civic Center Building in Denver</td>
<td>22</td>
</tr>
<tr>
<td>Civic Center Building in New York City</td>
<td>25</td>
</tr>
<tr>
<td>Civic Center Plans</td>
<td>19</td>
</tr>
<tr>
<td>Civic Center Plating, An Act Relative to</td>
<td>235</td>
</tr>
<tr>
<td>Collection of Special Assessments in Kansas City</td>
<td>143</td>
</tr>
<tr>
<td>Commercial Argument for City Plan</td>
<td>238-239</td>
</tr>
<tr>
<td>Commercial Club of Chicago</td>
<td>228</td>
</tr>
<tr>
<td>Commission on City Plan</td>
<td></td>
</tr>
<tr>
<td>Functions</td>
<td>80 ff.</td>
</tr>
<tr>
<td>Membership</td>
<td>80, 91</td>
</tr>
<tr>
<td>Appointment</td>
<td>79</td>
</tr>
<tr>
<td>Relation to Existing Administrative Agencies</td>
<td>74-75</td>
</tr>
<tr>
<td>Relation to Public Service Corporations</td>
<td>75-76</td>
</tr>
<tr>
<td>Compensation in Certain Cases of Land Takings</td>
<td>52-53</td>
</tr>
<tr>
<td>Completeness, A Requirement in a City Plan</td>
<td>230</td>
</tr>
<tr>
<td>Composition of the City Plan Commission</td>
<td>80, 91</td>
</tr>
<tr>
<td>Constitution, the, and City Planning</td>
<td>65</td>
</tr>
<tr>
<td>Coordination of Public Work, A Function of City Plan Commissions</td>
<td>75</td>
</tr>
<tr>
<td>Correlation of Urban, Interurban, Suburban and Surface Transportation</td>
<td>110</td>
</tr>
<tr>
<td>Cost of Kansas City Park System</td>
<td>143, 144</td>
</tr>
<tr>
<td>Curved Streets, Disadvantage of, in Rapid Transit System</td>
<td>109</td>
</tr>
<tr>
<td>Custody of City Plan Studies</td>
<td>263</td>
</tr>
<tr>
<td>Damages for Land Taking</td>
<td>142</td>
</tr>
<tr>
<td>Damages for Grade Changes</td>
<td>142</td>
</tr>
<tr>
<td>Data for a City Plan</td>
<td>12 ff.</td>
</tr>
<tr>
<td>Economic Facts</td>
<td>15</td>
</tr>
<tr>
<td>Legal and Administrative</td>
<td>13</td>
</tr>
<tr>
<td>Physical Facts</td>
<td>11</td>
</tr>
<tr>
<td>Social Facts</td>
<td>12</td>
</tr>
<tr>
<td>Data for Determining Changes in Street System</td>
<td>34, 35</td>
</tr>
<tr>
<td>Data for Determining Housing Regulations</td>
<td>38 ff.</td>
</tr>
<tr>
<td>Definiteness, A Requirement in the City Plan</td>
<td>226</td>
</tr>
<tr>
<td>Drainage Cost Specially Assessed in Kansas City</td>
<td>142</td>
</tr>
<tr>
<td>Educational Feature of Chicago City Plan</td>
<td>235-236</td>
</tr>
<tr>
<td>Elevated Roads v. Subways</td>
<td>129, 134-135</td>
</tr>
<tr>
<td>Eminent Domain, Acts Relative to</td>
<td>250, 251</td>
</tr>
<tr>
<td>Equity of Special Assessment method</td>
<td>150, 153</td>
</tr>
<tr>
<td>Excess Condemnation</td>
<td>54 ff., 64, 67</td>
</tr>
<tr>
<td>Excess Condemnation, Acts Relative to</td>
<td>250, 251</td>
</tr>
<tr>
<td>Execution of plans in Various Cities</td>
<td>21, 22</td>
</tr>
<tr>
<td>Executive Committee of Conference</td>
<td>265</td>
</tr>
<tr>
<td>Fairmount Parkway, Philadelphia</td>
<td>21</td>
</tr>
<tr>
<td>Financing City Planning Surveys at Public Expense</td>
<td>43</td>
</tr>
<tr>
<td>Financing City Planning Surveys by Private Subscription</td>
<td>43</td>
</tr>
</tbody>
</table>
## TOPICAL INDEX

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing Methods in City Planning Studies</td>
<td>196–197</td>
</tr>
<tr>
<td>Financing the Execution of City Plans</td>
<td>60 ff.</td>
</tr>
<tr>
<td>Freight Terminals in Chicago Plan</td>
<td>100</td>
</tr>
<tr>
<td>Functions of a City Planning Commission</td>
<td>80 ff.</td>
</tr>
<tr>
<td>German Rapid Transit</td>
<td>137</td>
</tr>
<tr>
<td>Grading Damages in Kansas City</td>
<td>142</td>
</tr>
<tr>
<td>Home Rule Act for Ohio Cities</td>
<td>66</td>
</tr>
<tr>
<td>Housing and City Planning</td>
<td>37 ff.</td>
</tr>
<tr>
<td>Housing in Chicago Plan</td>
<td>101</td>
</tr>
<tr>
<td>Improvement Cost Specially Assessed in Kansas City</td>
<td>145, 146</td>
</tr>
<tr>
<td>Indianapolis Application of Special Assessment Method</td>
<td>154, 155</td>
</tr>
<tr>
<td>Industrial Center in Chicago Plan</td>
<td>99–100</td>
</tr>
<tr>
<td>Installment Assessments</td>
<td>61, 146</td>
</tr>
<tr>
<td>Keokuk, Iowa, City Planning in</td>
<td>44</td>
</tr>
<tr>
<td>Land Owners and Special Assessment in Kansas City</td>
<td>152</td>
</tr>
<tr>
<td>Land Values and Special Assessment in Kansas City</td>
<td>152</td>
</tr>
<tr>
<td>Leasing Land with Option of Purchase</td>
<td>160–161</td>
</tr>
<tr>
<td>Lecture Bureau, in Chicago Plan Commission</td>
<td>235</td>
</tr>
<tr>
<td>Legal Obstacles to City Planning</td>
<td>78, 233–234</td>
</tr>
<tr>
<td>Legislation, Drafts of Proposed</td>
<td>248 ff.</td>
</tr>
<tr>
<td>Legislation Establishing Plan Commissions</td>
<td>23</td>
</tr>
<tr>
<td>Legislation Regarding Land Acquisition</td>
<td>23</td>
</tr>
<tr>
<td>Legislative Progress in City Planning</td>
<td>23</td>
</tr>
<tr>
<td>Maintenance Cost, Specially Assessed in Kansas City</td>
<td>146</td>
</tr>
<tr>
<td>Massachusetts City Plan Commissions</td>
<td>88–89</td>
</tr>
<tr>
<td>Memphis Method of Paying for Park Land</td>
<td>159–160</td>
</tr>
<tr>
<td>Metropolitan Plan Commission, An Act Creating</td>
<td>253</td>
</tr>
<tr>
<td>Montreal, City Planning in</td>
<td>27 ff.</td>
</tr>
<tr>
<td>Municipal Debt Limit and Public Utilities</td>
<td>60</td>
</tr>
<tr>
<td>New York Central R. R., Plans for its Entrance into New York City</td>
<td>25</td>
</tr>
<tr>
<td>New York Constitutional Amendment Relative to Excess Condemnation</td>
<td>55</td>
</tr>
<tr>
<td>Number of City Planning Commissioners</td>
<td>80</td>
</tr>
<tr>
<td>Officers of Conference</td>
<td>265</td>
</tr>
<tr>
<td>Open Cut for Rapid Transit Lines</td>
<td>126, 127</td>
</tr>
<tr>
<td>Organization of City Planning Commissions</td>
<td>79–80</td>
</tr>
<tr>
<td>Organization of Conference</td>
<td>265–267</td>
</tr>
<tr>
<td>Park Certificates in Kansas City</td>
<td>152–153</td>
</tr>
<tr>
<td>Park Districts in Kansas City</td>
<td>149, 154</td>
</tr>
<tr>
<td>Park Locations in Chicago Plan</td>
<td>101 ff.</td>
</tr>
</tbody>
</table>
## TOPICAL INDEX

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavements, Cost of Specially Assessed in Kansas City</td>
<td>142, 143</td>
</tr>
<tr>
<td>Planning Powers not Fully Used</td>
<td>64</td>
</tr>
<tr>
<td>Playgrounds, Location and Area of in Chicago Plan</td>
<td>102</td>
</tr>
<tr>
<td>Pleasant Street Widening in Boston</td>
<td>21</td>
</tr>
<tr>
<td>Police Power</td>
<td>57 ff.</td>
</tr>
<tr>
<td>Building Height Limitation</td>
<td>58</td>
</tr>
<tr>
<td>Aesthetic Considerations</td>
<td>59</td>
</tr>
<tr>
<td>Private Property as a Problem in the City Planning Study</td>
<td>195</td>
</tr>
<tr>
<td>Public Buildings, Location of Considered in City Planning Study</td>
<td>193–194</td>
</tr>
<tr>
<td>Public Officials and Chicago City Plan Commission</td>
<td>236–237</td>
</tr>
<tr>
<td>Public Service Corporations and City Plan Commissions</td>
<td>75–76</td>
</tr>
<tr>
<td>Public Support for a City Planning Movement</td>
<td>222 ff.</td>
</tr>
<tr>
<td>Publicity Campaign for Chicago City Plan</td>
<td>231 ff.</td>
</tr>
<tr>
<td>Railroad Locations in Chicago Plan</td>
<td>99–100</td>
</tr>
<tr>
<td>Railroad Tracks, Used as Part of Rapid Transit System</td>
<td>135</td>
</tr>
<tr>
<td>Rapid Transit Cost Assessed on Benefited Property</td>
<td>131–132, 133–134</td>
</tr>
<tr>
<td>Real Estate Valuations along New York Subway</td>
<td>132 ff.</td>
</tr>
<tr>
<td>Reports of Committees</td>
<td>247 ff.</td>
</tr>
<tr>
<td>Constitution of Conference</td>
<td>247</td>
</tr>
<tr>
<td>On Finance</td>
<td>260</td>
</tr>
<tr>
<td>On Panama-Pacific Exhibit</td>
<td>260</td>
</tr>
<tr>
<td>Resolutions Adopted by the Conference</td>
<td>261 ff.</td>
</tr>
<tr>
<td>San Francisco Rapid Transit</td>
<td>131</td>
</tr>
<tr>
<td>St. Louis City Planning Commission</td>
<td>85–86</td>
</tr>
<tr>
<td>Schenectady, City Planning in</td>
<td>26</td>
</tr>
<tr>
<td>Seventh Avenue Extension, New York City</td>
<td>25</td>
</tr>
<tr>
<td>Single Tax and Special Assessments in Kansas City</td>
<td>147, 153</td>
</tr>
<tr>
<td>Special Assessment Districts in Kansas City</td>
<td>145, 150, 157</td>
</tr>
<tr>
<td>Special Assessment Figures in Kansas City</td>
<td>143–144</td>
</tr>
<tr>
<td>Special Assessment Methods in Kansas City</td>
<td>141</td>
</tr>
<tr>
<td>Special Assessment Methods in Indianapolis</td>
<td>154–155</td>
</tr>
<tr>
<td>Stability of Land Values under Special Assessment Method</td>
<td>153</td>
</tr>
<tr>
<td>Standards, use of in Street Widening and Extension</td>
<td>34</td>
</tr>
<tr>
<td>Station Spacing in Rapid Transit Systems</td>
<td>113</td>
</tr>
<tr>
<td>Street Problem in Loop District of Chicago</td>
<td>95, 96, 97</td>
</tr>
<tr>
<td>Street System Problems and Methods of Solution</td>
<td>34 ff.</td>
</tr>
<tr>
<td>Study in City Planning</td>
<td>163–211</td>
</tr>
<tr>
<td>Data for Study</td>
<td>163–168</td>
</tr>
<tr>
<td>Report of Committee</td>
<td>168–184</td>
</tr>
<tr>
<td>Statistical Statement</td>
<td>185–187</td>
</tr>
<tr>
<td>Discussion</td>
<td>189–198</td>
</tr>
<tr>
<td>Detailed Comment by Committee</td>
<td>198–209</td>
</tr>
<tr>
<td>List of Participants</td>
<td>210–211</td>
</tr>
<tr>
<td>Suburban Officials and City Planning Commission</td>
<td>83</td>
</tr>
<tr>
<td>Subways and Congestion</td>
<td>114–115, 136</td>
</tr>
<tr>
<td>Subways and Land Values</td>
<td>115, 132 ff.</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Subways, Cost</td>
<td>114</td>
</tr>
<tr>
<td>Surveys in City Planning</td>
<td>6, 33</td>
</tr>
<tr>
<td>Suspended Railways</td>
<td>116</td>
</tr>
<tr>
<td>Terminal Locations in Chicago Plan</td>
<td>100</td>
</tr>
<tr>
<td>Text Book on Chicago's City Plan</td>
<td>235-236</td>
</tr>
<tr>
<td>Through Routing in Chicago</td>
<td>106</td>
</tr>
<tr>
<td>Traction System for the Theoretically Perfect City</td>
<td>105</td>
</tr>
<tr>
<td>Traffic Counts</td>
<td>35</td>
</tr>
<tr>
<td>Transportation of Passengers</td>
<td></td>
</tr>
<tr>
<td>Cost of Various Types of Rapid Transit</td>
<td>116, 134-135</td>
</tr>
<tr>
<td>Commuting Zones</td>
<td>108</td>
</tr>
<tr>
<td>Importance in City Planning</td>
<td>107</td>
</tr>
<tr>
<td>Local and Express Service in New York Subways</td>
<td>113, 114</td>
</tr>
<tr>
<td>Relation to Height of Buildings</td>
<td>110</td>
</tr>
<tr>
<td>Transportation of Property</td>
<td>117</td>
</tr>
<tr>
<td>Distribution of Food Products</td>
<td>118-124</td>
</tr>
<tr>
<td>Warehouses and Freight Tracks</td>
<td>124</td>
</tr>
<tr>
<td>Veto Power in a City Planning Commission</td>
<td>88-92</td>
</tr>
<tr>
<td>World's Fair, 1892, and the Chicago City Plan</td>
<td>227</td>
</tr>
</tbody>
</table>