

**THE ZONING COMMISSION  
of the  
DISTRICT OF COLUMBIA**

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**EXPERIENCES WITH ZONING  
in  
WASHINGTON, D. C.  
1920 - 1934**

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**Recorded by**

**S. G. Lindholm,  
Engineer to the Zoning Commission,  
Washington, D. C.**



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## INTRODUCTION

Zoning in its practical application involves the weighing of many complicated factors of which the zoning body in the exercise of its discretion must take due cognizance to insure, in so far as it is humanly possible, a sound and equitable zoning plan. Basically fundamental are those zoning principles, which in the interest of public health, safety and the general welfare regulate bulk and height of buildings, and create a proper balance of needed areas for residence, commerce and industry. Of primary importance in determining this balance are those considerations which deal with the shifting of population, its cause and effect; the classification of area restrictions which will not be too onerous on citizens of the lower income groups; the exercise of proper judgment in balancing individual profit taking against the welfare of the community; and the best method of compromise in those instances where existing development does not and cannot conform to the best principles of zoning.

The Zoning Commission of the District of Columbia has statistics and experience which it endeavors to share with the public, in order to bring about a comprehensive and constructive cooperation. The information and critical analysis of the history of zoning are valuable and necessary, and from them can be drawn deductions for the preservation of what is best in zoning and for suggestions of future improvements. For these purposes the report is published.

The members of the Zoning Commission in 1935 are:

Dan I. Sultan,

Col. Corps of Engineers, United States Army.

Commissioner, District of Columbia.

Melvin C. Hazen,

Commissioner, District of Columbia.

Geo. E. Allen,

Commissioner, District of Columbia.

Arno B. Cammerer,

Director of the National Park Service.

David Lynn,

Architect of the Capitol.

Hugh P. Oram,

Executive Officer.

## CHAPTER I. WASHINGTON, THE CAPITAL

The creation of Washington, D.C., as the capital of the Nation determined its character as a model city for the housing of the Government and the citizens. It has attracted art, science and leisure, and has become no mean center of organized business and labor.

At its birth Washington had the signal advantage of the backing of the first President and of the L'Enfant plan for streets and parks. In its growth there have been lapses in the planning, but the energetic cooperation of the Government and the citizens has made Washington a capital of dignity and beauty. It has grown unrivaled in its parks, boulevards and tree-lined streets; it has many notable public and private buildings.

Efforts to make Washington an industrial center for outlying markets have so far failed, and, if successful, would mar its attractiveness as a residential city and rival its importance as the seat of the Government.

As in all other cities Washington provides for transportation, housing, business and other functions. An analysis of the functional areas involved will not in the case of Washington show a normal relation between need and area, because the boundaries of Washington, being fixed by Congress, do not expand to include all of the population which finds in Washington its work and main interests. The overflow population goes into the neighboring states of Maryland and Virginia.

Washington contains 38,611 acres of land area, as measured on a map, prepared by the National Park and Planning Commission. Of this area the Government, local and Federal, takes 9,920 acres, or 25%. This includes parks, which cover over 5,000 acres. Being beyond the scope of this report a detailed analysis of the Government property, beyond calling attention to its volume, will not be attempted. A second share of public area is taken by streets and alleys, including the circles and small reservations which break the monotony of the street plan, and cover 9,940 acres, or 26% of the total area.

The remaining 18,750 acres are assessed as private property.

The use of this private property is the concern of the city zoner and city planner. The distribution of the areas between the uses shown below approximates the situation at the beginning of 1934.

Dwellings.....	6,227	acres
Apartment houses.....	350	"
Private institutions.....	900	"
Hotels and lodging houses.....	200	"
Railroads.....	669	"
Street railways.....	43	"
Public utilities.....	104	"
Private business enterprise.....	963	"
Vacant.....	9,294	"

Not all of the 7,677 acres which are used for dwellings, institutions, apartment houses and hotels are located in the residential zone; for only 6,900 are so located. 777 acres of them are in the commercial and industrial zones. Even under zoning, housing construction has been undertaken in the latter zones, as seen in table X.

## CHAPTER II. PROBLEMS OF ZONING

The growth of a city is never haphazard. The rich and the well-to-do develop residential sections, from which they attempt to exclude incongruous uses by deed or other restrictions. The other end of the functional scale, industry, likewise seeks suitable power and transportation facilities as long as there is vacant land. The play of self-interest seeks to find for the several parts of the city the most economic uses; but as land becomes crowded the objective of orderly development gives way to a scramble for business locations. Long before 1920 even real estate organizations tried to devise methods by which the character and value of a developed section could be protected against the intrusion of incongruous uses. Real estate values are to a large measure due to the uniformity and homogeneity of the improvements. The value is created by cooperative efforts, and is lessened when an incongruous use appears. The incongruous use



may have neither permanent life nor even temporary justification; but affording to pay the prevailing price, it establishes itself. The surrounding property immediately becomes less desirable, and the late stages of a city's history are filled with the almost hopeless struggle to preserve the established values of a neighborhood against the spots of undesirable enterprises which are being placed therein. If the let down could be effected gradually, the loss would not be so crushing; but slow transition is rarely possible. The first appearance of the incongruous use causes all of the values to tumble and the mortgage holders may not even have "a bag to hold."

An unlimited supply of commercial sites invites unnecessary and wasteful expansion of enterprises. "Going into business" seems to many an easy way of making a living, which is apparent from the multiplication of restaurants, beauty parlors and stores, and on streets where it is obvious that only a few can survive. The over-supply of store facilities inevitably leads to the blighting of the neighborhood.

A picture of conditions found in many American cities was presented by Mr. Harland Bartholomew of the City Planning Commission, Saint Louis, Mo., and consultant to the Zoning Commission of Washington, D.C. in 1920, in an address before the Chamber of Commerce of the United States, May 2, 1934. His presentation, although general in scope, is so strikingly true of Washington that it will be quoted:

"Such large areas of old residential properties have been zoned for commercial and industrial purposes that there is little or no hope of their absorption for such purposes. Misguided property owners, hopefully awaiting a 'higher', more lucrative use, allow their properties to depreciate and tenants to move away. The less fortunate group of our population, which is compelled to remain in these areas, is forced to put up with dilapidated dwellings. Not only is policy of shift and abandonment expensive from the standpoint of the individual owner, but it is doubly costly to the city for disease, delinquency and crime thrive in these areas. Regular city service, of course, has to be main-

tained, but since net property values have decreased, tax collections are diminished and there is consequently a tax expenditure two or three times greater than tax collections. These slum areas are actually, therefore, subsidized by taxes paid by all other owners of property elsewhere in the city. The average American city is thus seen to be on the whole a very extravagant and unsound structure. There is an ever growing area of slums at the centre which is surrounded by larger areas of residential property in various stages of depreciation with only a fringe of new high value residential property on the outskirts. The American city has been altogether too largely 'just a vast speculation in real estate'. No wholesome social condition or economic stability can endure under such conditions. Soundness and stability for the individual property owner can come only as a result of a wisely conceived policy of control, enforceable over the whole area of growth. There is no middle ground. Either we must organize to control the growth of our cities, or we must prepare to pay an increasingly exorbitant price for a policy of extravagance and waste."

The conditions, described by Mr. Bartholomew, exist in Washington. The down-town district is on the down grade, old settled sections surrounding it touched by obsolescence.

### Purposes and Limitations of Zoning

When the Zoning Commission, established March 1, 1920, confronted its task there was little actual experience in zoning to guide it. New York City had adopted a zoning ordinance in 1916. Los Angeles and smaller California cities had experimented. It was only after the advisory committee on zoning, appointed by Mr. Hoover in 1921, had published its reports that states and municipalities in large numbers passed zoning laws and ordinances.

The object of zoning is to regulate the growth of the city so as to promote the comfort and convenience of the people and to secure stability of real estate values. Its task, therefore, is to classify buildings and premises according to their use into use districts, and to locate these districts on the zoning map.

It is now recognized that in a well planned city there should be a reasonable relation between land needed for residences and land needed for commerce and industry. In a city like Washington, which is and always will be a residential city, commerce and industry will find its main, if not entire, market among the home population. The housing facilities are, therefore, the base of its prosperity. How much area must be set aside for the service functions, so as not to waste land, and at the same time preserve an equitable and permanent value of commercial and industrial sites, is an important real estate problem.

When it came to platting the commercial districts the commission located the first commercial districts along the main traffic arteries and where business had already established itself. As it was soon realized that the traffic arteries could never be filled with stores, and that business preferred to be located in concentrated areas, some of the streets were returned to the residential zone, and if business had to be provided for in newer settlements, commercial islands were designed where parking space for customers could be provided on private ground and the blocking of street traffic minimized.

Platting for second commercial and industrial districts was naturally guided by existing railroad and harbor facilities, around which such uses had already appropriated the land.

Classification of the non-residential uses met with the difficulty that certain uses which by their character were second commercial needed a distribution along traffic streets that only a first commercial zoning could give. Chief among these second commercial uses was the gasoline service station. The device was therefore adopted to allow this use in the first commercial district upon the consent of 75% of the property within a radius of 200 feet of the proposed establishment. Certain residential uses were also restricted in the residential district by similar consent provisions.

Designed to protect the neighborhood the device but rarely achieved this end, but in most cases only caused a dickering about money.

A pleasing and attractive appearance of buildings is important to the citizens, and city planners realize its value. In Washington the Zoning Commission is restricted by the act to regulate the purposes for which buildings and premises may be used, the heights of buildings and the lot areas they may cover. To that extent only, does it regulate the appearance of buildings and of streets. Indirectly it influences the subdivision of unimproved land into building lots by requiring minima of open spaces; but it cannot prevent the crowding of the scantiest building in neighborhoods which under intelligent handling could develop into high class sections. The lack of supervision over suburban layouts has in many cases caused blights and depression.

Zoning, therefore, is only a part of the wider task of city and regional planning for which Congress authorized (1926) a special commission, The National Capital Park and Planning Commission, to prepare plans for Washington as to "traffic and transportation; plats and subdivisions; highways, parks and parkways; school and library sites; playgrounds; drainage; sewerage and water supply; housing and zoning regulations; public and private buildings; bridges and water fronts; commerce and industry; and other proper elements of city and regional planning." The "Shipstead Act" (1930) provides that the development of the seat of the national government "should proceed along the line of good order, good taste, and with due regard to the public interests involved and a reasonable degree of control should be exercised over the architecture of private or semi-public buildings adjacent to public buildings and grounds of major importance." In conforming to this act approval for plans as far as they relate to height and appearance, color, and texture of the materials of exterior construction for new buildings fronting Rock Creek Park and the Zoological Park and Rock Creek and Potomac Parkway and the large government projects down-town has to be obtained from the Commission of Fine Arts.

### CHAPTER III. STATISTICAL DIVISIONS

The Washington which the commission is authorized to zone may be divided into four sections, which illustrate the stages of the city's development. The boundaries are shown on a map on page 8.

District "A" is the down-town section, bounded by Rock Creek, Florida Avenue, North Capitol Street, and Constitution Avenue. It contains 1,093 acres, and had in 1930, 119,961 people. It has practically no unused area.

District "B" surrounds down-town and is an old settled section. It includes Georgetown, from which its boundaries follow Rock Creek, Rock Creek Road, Soldiers' Home, North Capitol Street, Florida Avenue, Benning Road, Anacostia and Potomac Rivers. It contains 2,577 acres, of which 307 are undeveloped. The population in 1930 was 209,395 persons.

District "C" is the more recently settled areas west and north of district "B" and west of Anacostia River. It contains 9,396 acres, of which 4,645 are undeveloped. The population in 1930 was 120,768 persons.

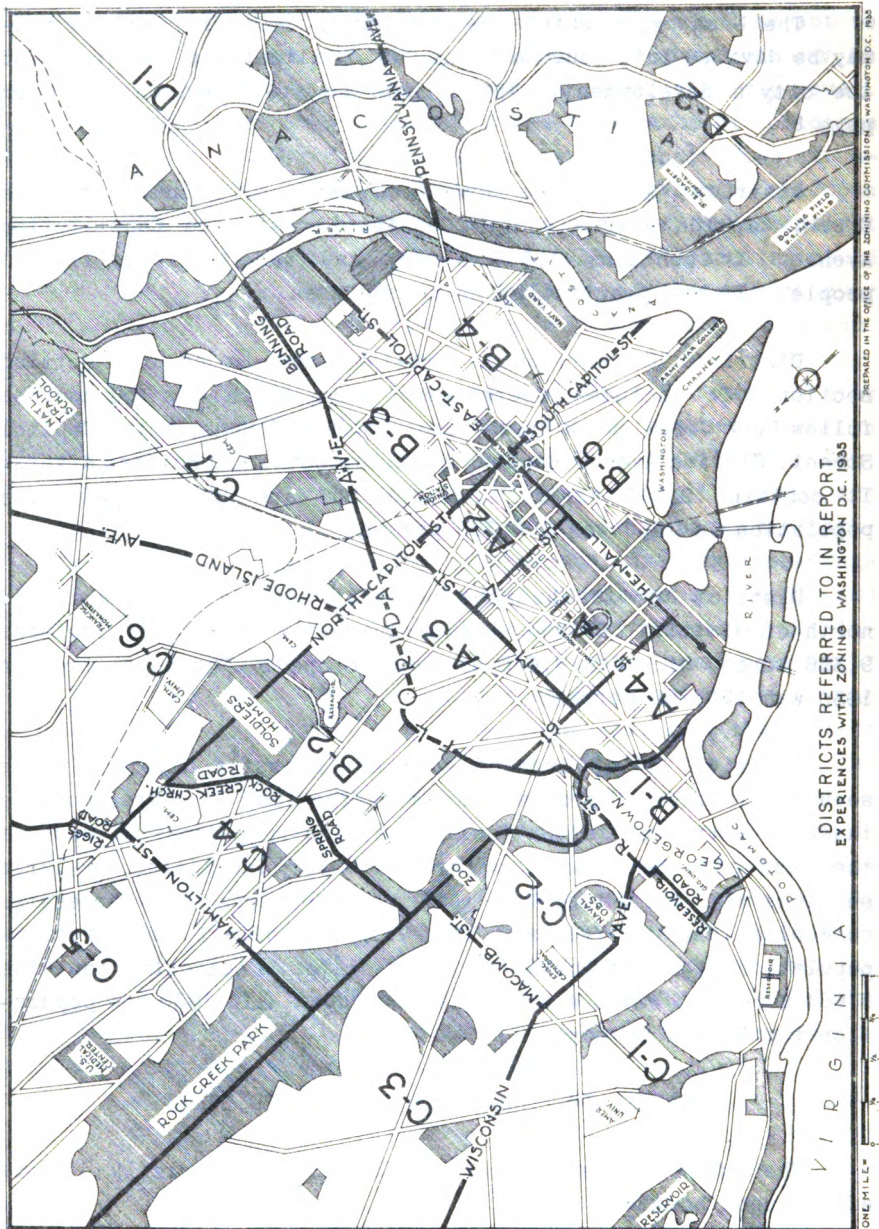
District "D" is located east of Anacostia River. It has seen considerable improvements during the last 14 years; but the inadequate transportation facilities, the ruggedness of much of the land and the lack of water and sewer facilities in large sections will for a long time retard its development. The easier communications to Maryland and Virginia direct the overflow population from Washington to these states. Anacostia contains 5,684 acres, of which 4,399 are undeveloped. In 1930 the population was 23,791 persons.

### CHAPTER IV. RESIDENTIAL USES AND ZONES

The effect of zoning should be observed chiefly in its effect upon housing.

What was the housing situation when the Zoning Commission established the zoning map in 1920?





There were approximately 13,000 detached and semidetached dwellings, 39,000 row house dwellings, 4,000 flats, 3,500 flats in buildings with stores and 830 apartment houses, besides hotels, clubs, etc.

The segregation of these buildings by type or character had only to a slight extent been accomplished by deed or other private restrictions. The row house, detached dwelling and apartment house were found in the same block.

The first act of zoning was to separate the row house from the detached and semidetached groups by providing an "A" area district in which there must be one side yard to each lot. Later a distinction was made between one-family dwellings, whether detached or row, in which types residence and ownership are more permanent, and the rental types, flats and apartment houses, where the population is more apt to shift.

Later section will describe how the classification was made, and how overcrowding of land was regulated.

#### Classification of Residential Buildings

The first zoning regulations classified residential buildings into two types, those that had at least one side yard and those that had none. The vital distinction between types of residential buildings was the side yard.

No distinction was made originally between apartment houses and other residences. In the building boom following the war the apartment house became very important, and a strong agitation among home owners was started to exclude it from restricted residential sections. The motive behind the agitation was to separate rental housing facilities in flats and apartment houses, where the population is shifting, from one-family dwellings with their more permanent population. As a response to this agitation the Zoning Commission created in 1923 a new zoning district, called "A" restricted, from which apartment houses were excluded. In 1926 further restrictions were added, so that only wholly detached single-family dwellings with two side yards, churches and school buildings were to be permitted.

As a result of this defense of the individual home 30.4% of the entire zoned area of Washington, and 35.2% of the residential use areas are zoned "A" restricted. This preponderance of the "A" restricted areas reflects both the popularity of the restriction and the bias of the Zoning Commission in favor of home sections.

There are now five residential use districts. They are not all called use districts in the regulations, for three are included as subsections in the area district regulations, which causes some confusion. They are:

1. The "A" restricted district in which only one-family, detached dwellings with two side yards, schools and churches are permitted. The "A" restricted area districts occupy 35.2% of the residential zone.

2. The "A" semirestricted district, occupying 0.9% of the residential zone, permits detached and semidetached (having one side yard) buildings, but bars apartment houses, hospitals, sanitariums, lodging and boarding houses, public garages, flats, hotels, and community houses (three dwellings in a row).

3. The "B" restricted district, occupying 3.7% of the residential zone, bars apartment houses, flats and hotels, but requires no side yards

4. The "A" area district, occupying 37.9% of the residential zone, requires one side yard, and permits apartment houses and flats, but bars hotels.

5. The "B", "C", and "D" area districts, occupying 22.3% of the residential zone, require no side yards, and have no restrictions as to type.

Open spaces around residences are insured by the side yard requirements, referred to above, by minimum dimensions for open and closed courts, and by rear yards.

The Washington zoning regulations do not require front yards, due to the fact that streets are unusually wide and that building lines, set back from the streets, are fixed on almost all residential streets.

## Burden of Population on Land

One of the chief purposes of zoning is to promote public health and comfort by placing restrictions upon the number of persons who may live in any given area, and to safeguard open spaces around buildings.

As may be expected, the detached dwelling offers the largest open space, and an acre contains on an average 6.3 detached dwellings. It contains 15.2 semidetached dwellings, 21.1 row house dwellings, 47.0 units in "A" area apartment houses, 85.2 in "B" area apartment houses, and 152.0 in "C" area apartment houses - all in the residential zone and constructed under zoning. In the commercial and industrial zones the units in apartment houses are more numerous per acre, averaging 239, but many of them are located down town and are designed for a transient tenancy.

In spite of zoning the apartment houses in the "B", "C", and "D" area districts have caused serious overcrowding; and the result is still more serious when one finds that of the population housed under zoning regulations nearly one-fourth is found in apartment houses. The effect of this crowding may be looked for in health and social conditions, and are striking when such spatial needs are considered as playground for children, and parking space for automobiles. The space not provided for in the tenantry must be provided at the cost of the public in the streets and at great inconvenience to traffic.

The rate of drift of population from one type of dwelling to another, adds light to the problem of population crowding. The first apartment house appeared in Washington in 1900, and it is not probable that those constructed during 1910 - 1920, the decade before zoning, provided for more than one-third of all the new accommodations of that decade. Under zoning they have provided nearly one-half; and as a result the apartment houses in 1934 furnished 34% of all family accommodations, when in 1920 they furnished only 24%. This does not mean that 34% of the population lived in apartment houses, because the average number of persons occupying an apartment unit is not as large as in a



family dwelling, but the numbers tell that apartment house tenants have increased from 39,000 in 1920 to 89,000 in 1934, if two persons are considered as constituting an average tenantry. It is this large, and constantly growing population, which is crowded into the acreage shown in a preceding paragraph.

Other cities have tried to prevent overcrowding by checks on bulk of the building in relation to lot area, or upon the number of units or tenants in relation to acreage. Such checks are good when they work. The Washington law, which is a congressional act, does not authorize any such checks.

How the present checks have worked has been explained. If less land crowding is desired the obvious remedy is to readjust the height and area distribution.

A mistake was made in the original zoning by confining the apartment house, as well as commercial districts, to strips 100 feet in depth on streets where lot lines had not been established. The result was that in the then undeveloped areas, where important apartment house construction has since taken place, the developer had to acquire an expensive street frontage to compensate for the shallowness of the apartment house lot, or else apply to the Zoning Commission for extension of the zone. The zoning itself should have provided adequate depth to possible building lots.

An illustration of this condition is Connecticut Avenue, a main artery leading through a high class residential section, only sparsely settled in 1920. It was zoned in part first commercial, and in part residential "C" area in strips 100 feet in depth on both sides of the avenue. The strips of "C" area had in places to be widened by rezoning to allow grouping of apartment houses. Behind these strips was the "A" restricted area zone. Considerable development took place after 1920, but detached dwellings almost altogether kept away from the fringe of apartment houses facing the avenue, and vacant areas were left in which no private development in harmony with the cost of the land can be expected.



These unused "A" restricted belts are a menace to sound improvements, as customers for high priced homes do not care to build under the shadow of an apartment house, or are afraid that the protection of zoning will in the future be modified in order to attract some form of development to these twilight zones.

If both the zoners and the realtors had realized when the restrictions were drawn against apartment houses that "A" area districts should have been set aside with adequate sites for the grouping of apartment houses with attractive open spaces for parking, playgrounds and landscape gardening, much of the blight that is found in high class sections would have been avoided.

The 60 foot or five story height limit has not promoted an economic type of apartment house, for it is held by builders that a five story building demands elevator service and has a large proportion (top and bottom stories) of less desirable floor area. This contention seems to be borne out by the fact that of 631 apartment houses, constructed under zoning and in the 60 or 90 foot height areas, 141 are four stories in height and 82 are five stories. The larger number of four story apartment houses in the five and eight story limits is also due to the less expensive construction permitted by the building code and by the walk up character of many of them.

Instead, therefore, of limiting overcrowding by a height limit which imposes a distinct economic burden it may have been better to raise the height limit but require a larger proportion of open lot area. The Zoning Commission recognized this unbalance by permitting, in 1930, six, seven and eight story buildings in the residential, 60 foot height and "C" area districts on streets 110 or more feet in width, if the ground area of the building be reduced 4% for each addition of five feet in height over the 60 foot limit. An eight story building occupying 51% of the lot may, therefore, be built in such "C" area, whereas in the "A" it could be built only in the 90 foot height district, and could cover only 50% of a corner and 40% of an interior lot.

In the 40 and 60 foot height districts the regulations permit an eight story apartment house if removed from all lot lines

by a distance at least equal to the height of the building. This permission has been taken advantage of by many builders who point to the open space as an attraction to tenants. The lay of the land does not often permit such set-backs, however, and a lot occupancy of 40% seems to be a reasonable restriction even for an eight story building.

When changes in zoning to "C" area are asked for in order to erect apartment houses, the Zoning Commission has frequently restricted the area to "B" or "A", and it would be a reasonable rule to grant changes only to the "A" area in the "recently settled" districts, and to "A" or "B" in "old settled" districts.

## CHAPTER V. COMMERCIAL USES AND ZONES

In a previous chapter it is stated that transportation and public utilities occupy 816 acres and private business enterprise 963 acres of the zoned area. Expansion or contraction of areas needed by the former uses rarely occur, and the need having been adequately provided for in 1920 no further discussion thereof is necessary.

Private business enterprise, however, is forever shifting and cause zoning problems that cannot be settled permanently.

Areas needed for commerce and industry depend primarily upon the population furnishing the home market, and upon the technique of business. Production for an outside market may be ignored in Washington, from which material goods are not to any extent exported.

The private business enterprises that most frequently disturb the stability of zoning are stores, especially when new demands appear. There are now, for instance, nearly 500 beauty parlors, when a few years ago there were none. The automobile has brought in its wake gasoline filling stations, garages and auto stores of various kinds. In time of depression the hope of making a living by "keeping store" is very strong. In neighborhoods where property values are falling there are constant efforts to convert residences into stores by rezoning, regardless

of abundant areas in the neighborhood already zoned commercial. However well balanced the zoning areas are, in any district there will always be agitation for changes in order to benefit individual property owners.

In the table below, stores and acres of business use, and their relation to population, are presented as an index of the intensity of business in the several districts. The down town district is the most intense.

	Persons per acre of business use	Stores	
		Number	Persons per store
Dist. A - Down town	376	4,400	27
" B - Old settled	472	3,440	69
" C - Recently settled	866	1,200	120
" D - Anacostia	740	280	90
Average	708		52

#### District A - Down town

Down town is the common name for the section of Washington between North Capitol Street and Rock Creek, and between Constitution and Florida Avenues.

Down town presents zoning problems which are peculiar to old sections of any city. These problems become acute when the land values having reached a maximum begin to recede and the investments in residential property carry more losses than profits. Other cities are worse off, where narrow streets, railroad terminals and factories add difficulties that Washington has escaped. The resulting residential slums and depreciation of business property are only showing their signs here, when other cities are pouring out hundreds of millions of dollars to reclaim their central sections.

But the signs are here, and there is an inevitableness in the approach that require new forces to stem it.

Many of the advantages of this area as a center of business will remain for many years. The large office buildings are located here. Headquarters for national trade and labor associations, railroads and wholesale distributors, as well as shopping centers for much of the daily necessities and for most of the important, if not daily recurrent needs of the total population, and the important department stores will remain here. Employment in public office brings daily a large part of the population; hotels cater to visitors. More office buildings and headquarters for scientific organizations may be expected; but the site areas needed for them are comparatively unimportant, as the building height is the main factor. There must also be more public garages, when free parking space is no longer permitted on the streets. At present it looks as if the razing of buildings and use of the ground area for parking is a profitable venture. A large real estate speculation has also been carried on in gasoline service stations of which there are 459 in the city and 128 down town. Here the future need has been met adequately.

The retail business covers the largest down town business area. As long as the outlying areas are undeveloped or are but sparsely settled, down town supplies most of the commodities needed therein. But with the increase in population the local business needs are supplied in the newer sections by local stores to include not only marketing, but such services as banking, furniture stores, plumbing, etc., which services have been the prerogatives of down town. Business follows population and with available space newer business methods introduce conveniences such as grouping of stores by kind, parking space and other features not possible in the old and crowded sections. In this competition with newer sections down town must be the loser; and the most it can look forward to is for the best blocks to hold their own; less favored blocks must scramble for whatever business they can get.

Is down town adequately zoned for business?

The area zoned for commerce and industry measures 635.5 acres. Of this area 11.3 acres are used by the public utilities and 305.4 by private business enterprise; the latter also occupy 13.3 acres in the residential zone, making in all 330 acres used for business. That means that 50% of the commercial zone is used for business, or if the 13.3 acres in the residential zone be added 52%. The remaining 48% of the commercial zone and nearly all of the residential zone, altogether 762 acres, are open to residential uses.

#### Down Town as a Residential Area

The down town section of Washington offers great residential advantages. The streets are wide and tree lined. Large parks are within easy reach and small parks abound. Fashion and wealth once found their homes on its streets. It is still the most densely populated section.

The circumstance that government offices and headquarters of numerous private organizations give employment to tens of thousands in this section should make it convenient for residence. That it is convenient is shown by the large number of apartment houses built here since 1920, providing accommodations for 9,183 families, which number is one-third of all apartment accommodations built during the same time in the total city.

But like most of the business section the residential section declined in value. The population dwindled between the census years 1920 - 1930; the loss of 40,000 of the white population was in part due to excessive crowding during the war years, and the loss may not be continuous. There was a shifting in the character of the population, as the colored population increased during the decade by 11,700.

Why people will desert the neighborhood of their employment to go miles to settlements in the northern and western parts of Washington, or to Maryland and Virginia is not explained by greater attractiveness of these distant areas. The explanation must be sought in the quality of houses offered down town. To settle there one has not an open lot to build upon; one must



either use an old building, or renovate it, or raze it. The down town dwelling cannot compete in attractiveness with newer construction elsewhere.

Nowadays a building suffers obsolescence long before its structural usefulness is over. The mansion as well as the modest dwelling suffers. In Washington few dwellings are now built more than two stories in height. Incomes and standards of living frown upon houses with three or four stories, and down town is filled with such. Nor do old dwellings have modern improvements. Faced with the choice of renovating or rebuilding a down town dwelling, or of building anew on an unimproved lot elsewhere, the tenant finds that economy favors the latter and he deserts down town.

The blight of obsolescence is inevitable. It strikes the conspicuous mansion on 16th Street as well as the buildings on less pretentious streets. Buyers, if they appear, offer lower prices; renting displaces home ownership, as do boarding and rooming.

Is change in zoning the remedy?

If our analysis is correct that only 50% of the commercially zoned area is now used for business, it is in the first place evident that the business expansion itself is slow, and in the second place that rezoning cannot bring appreciable relief. Business has every opportunity to use or convert for its use residential property located in the commercial zone. It faces the same task of adjusting the building to business use, if permitted into the residential zone. It may be assumed that the new business has to pay a higher price for a site in a commercial than in a residential zone, and that in most cases the difference in price is at the bottom of the agitation for rezoning. Under such circumstances a rezoning may help the owner who sells, but at the expense of others who own lots already zoned commercial; and the Zoning Commission is called upon to be arbiter of the transaction.

An illustration of the result of rezoning will be given. Of

30.9 acres changed from residential to first or second commercial zones before 1927, 66% was in 1934 still used for uses permitted in the residential zone. Of the 34%, used for business, a considerable portion was at the time of zoning change already used for business when for that reason and because of the proximity to commercial zones the changes were made. Of this large area, near to and part of the center of business, more than two-thirds have failed to find a profitable conversion into business in spite of the change in zoning.

Subdistrict A-1, which is bounded by M Street and Constitution Avenue, 19th and 7th Streets, is the intense business district. 84% of its total area is zoned for business. Of the area zoned commercial 74.9% is used for business purposes; the other 25.1% for residential purposes. The residential area is confined to 16th Street and Massachusetts Avenue, a uniformly expensive area. A change of any part of these streets would react quickly upon the value of the whole, and the streets should either be preserved entirely residential, or should be entirely first commercial. A feeler to create a new limited commercial district for these streets was sent out by the Zoning Commission in 1930, but met with no response, as such restricted zone did not promise to attract a substantial increase in commercial use.

Subdistrict A-2, located east of A-1, and bounded by M Street, 7th Street and North Capitol Street, has only 4.7% of its area zoned residential, an area located in the vicinity of Judiciary Square and Massachusetts Avenue. The subdistrict is not as intensely commercial in character as A-1, because only one-third of the commercial zone is used for business, the other two-thirds as well as the residential zone are used for residences. The agitation for changes here has been insignificant.

Subdistrict A-3, located north of M and east of 19th Streets, and subdistrict A-4, located west of 19th Street, are different. In the former 38% and in the latter 45% of the commercial zones are used for business with some small intrusion of business in the residential zones. It is evident that no business expansion in these subdistricts can fill the areas zoned for business. Of the total area only 17% is used for business.

These two subdivisions are, therefore, predominantly residential, with a population in 1930 of 83,956 persons, and any reduction of the residential zone is more apt than not to be detrimental both to the residentially and commercially zoned areas. A scattering of commercial uses among sections that must remain residential can only aggravate the blight that experience shows always follows the mixture of uses. No change should be made unless preceded by plans for a wholesale reconstruction to change the character of whole blocks or sections.

It must be emphasized here that the restoration of down town cannot be achieved by ordinary real estate operations in single lots. The improvement of a dwelling here and there does not appreciably raise the character of the neighborhood; in fact the hopelessness of the task deters any attempt to do so. Large scale housing schemes are necessary to invite the return of a resident population.

A fair inference of this study is that if areas are to be zoned for the chief benefit of business, the Zoning Commission has been generous to the section of greatest business intensity and excessively generous to the others. No change should be made except upon a comprehensive plan to benefit housing as well as business.

#### District B. - The Old Settled

District B, which surrounds the down town district, has in part developed simultaneously with it. In fact Georgetown (B-1) is older. It contains considerable railroad property and other permanent industries. The industries are segregated in space and do not as the commercial uses do down town, give a dominant character to the whole district, which is prevailingly residential.

The uses of land were well defined in 1920, commercial uses following the main streets. The Zoning Commission, therefore, made these streets first commercial, and set aside second commercial and industrial areas where they were obviously needed.

The only important change has been the increase of second commercial and industrial areas at Buzzards Point, where an extension of a railroad has been authorized by Congress.

Of the commercial and industrial zones 65% is covered by corresponding uses, and the percentage would be 68, if business uses in the residential zone were included. The district may not be altogether self-sustaining in the sense that all needs of the population are met by the local commercial services it offers, but it approaches that equilibrium more closely than any of the other districts. The population is stationary, having increased only 832 during 1920 - 1930, with a total in 1930 of 209,395. Approximately eight times as much area is used for housing as for business.

There is much evidence to show that the blighting effects of obsolescent dwellings, traffic congestion, etc., which are plainly apparent down town, are also touching these surrounding sections; and the same efforts to hold on to special privileges of non-conforming uses or to seek escape in rezoning are made by the property owners in the residential zone.

#### District C. - Recently Settled

District C, with 50% of the zoned area of Washington, contained in 1920 only 12.0% of the population; in 1930 it contained 25.2%.

Dealing with a comparatively virgin territory the task of the Zoning Commission was in 1920 not so much the allocation of areas between residence and business, as to foresee the types of residential development which were to follow. How the commission did this, and what adjustments were made later, have been discussed in previous chapters.

In zoning for commerce the commission adopted the device of making highways first commercial. It became soon apparent, however, that all traffic streets would not be needed for business, and a considerable part was returned to the residential zone. The present distribution of the commercial zone will

probably be modified to the extent that a few gasoline service stations and business islands will have to be provided in some of the unimproved sections.

The traffic problem, especially if aggravated by street cars, complicates zoning. Apartment houses locate without hesitation on traffic streets, and in most sections dwellings spring up on such streets, provided that lot prices are not too high. When, however, gasoline service stations, hot dog stands and similar enterprises catering to a passing clientele appear, the neighborhood is blighted for detached family housing. Attempts have, therefore, been made to save highways from undue exploitation by concentrating business into islands away from, but accessible to, the highway, or if on a highway by providing parking space on private property near the store entrances.

Of the 9,395.8 acres of the zoned land in district C 213.3 are held by railroads. 865 acres, or 9.2% of the total, less the railroad property, are set aside for business, one-fifth of it is used for business, and there is, therefore, ample room for future business expansion.

## CHAPTER VI. ADMINISTRATION

### Hearing of Cases

The Zoning Commission has heard 1,428 petitions for rezoning. This number seems to indicate either that the original zoning needed considerable bolstering or that petitioners seek an immediate or prospective profit without consideration for public welfare. Fifty three percent of the petitions was denied.

The largest area involved in zoning change followed the introduction of the "A" restricted and "B" restricted area districts, but these restrictions tended to enhance rather than lower values. The commission itself has initiated petitions to restore streets to a residential status where the commercial zoning had no prospect of commercial development. On the other hand in the down town section where business had been pressing westward considerable areas have been changed from residential to commercial.



The most troublesome decisions have been those dealing with built up sections where the improvements are no longer suitable for present uses. This is particularly true of streets once considered fashionable, and to a larger extent of the down town section where antiquated buildings meet the requirements neither of business nor residence.

Similar sections in any city require difficult adjustments. Expensive residences are deserted by their owners and cannot produce adequate revenue. The demand for commercial sites is limited, and usually there is an abundance of land already zoned commercial. As a result trading in down town property is stagnant and values decreasing.

In Washington, residential streets have been zoned commercial and stores introduced on the ground floor. This conversion seems to many to be the only solution, and owners of residential buildings who see an opportunity of selling or renting their buildings for commercial uses petition the Zoning Commission for rezoning. They would rather have a piecemeal rezoning in favor of their own property than a general rezoning.

The Zoning Commission is, therefore, faced with the dilemma of either being a party to speculative deals, or to rezoning all, or at least whole streets, of down town property.

In deciding requests of this nature the Zoning Commission is handicapped by its lack of authority to grant specific uses without changing the zoning itself. There are many meritorious cases where a specific and defined use would not harm or be objectionable to the neighborhood, but which the commission must either deny or add a "spot" on the zoning map, which spot may later be the site of a very objectionable use, while the grant of a specific use would continue the protection of zoning in case the specific use was not established within the time limit set. A bank or the headquarters of a national commercial organization would not detract from sections of 16th Street, for instance; gasoline filling stations, garish advertising and other unrestricted commercial uses would soon blight this imposing street.

A restriction on the frequency of public hearings, that undoubtedly has brought about good results, was announced in December, 1929, to the effect that thereafter public hearings would be granted only three times a year instead of monthly. Fewer requests for changes have been made and time has been given for a more thorough investigation of their merits. In the period February 1930 - June 1934 196 requests were made for less restricted zoning, of which 36% was granted, and 35 requests for more restricted zoning, of which 86% was granted.

### Zoning with Consents of Neighbors

The consents of owners of surrounding property for the establishment of a certain use were required by some of the early zoning regulations in order to give the neighboring owners a defense against the proposed use. Such regulations have in some cases been declared unconstitutional and in practice fail as a regulatory measure. In Washington the consent provisions in relation to those uses permitted in the residential and first commercial districts may be open to successful court attack on the ground of constitutional validity. The latest decision on the subject by the Supreme Court of the United States (Washington ex rel. Seattle Title Trust Co. v. Roberg, 278 U. S. 116) raises grave doubts of their validity.

The provisions in the Washington regulations have brought about a pernicious condition in that they practically surrender to property owners the right to sell consents or to arbitrarily withhold consents for certain activities seeking establishment within 200 feet of their property.

### Non-Conforming Uses

A non-conforming use, particularly a non-conforming store, is a source of vexation to the zoning administration. The zoning act permits its continuance with the limitation that no structural alterations, except those required by law or regulation are made therein, and no new building is erected.

The theory in the minds of the legislators and the Zoning

Commission was that time and decay would eliminate the non-conforming uses. But this does not seem to happen. Many of the non-conforming stores are a useful part of the neighborhood, and enjoying a monopoly existence are very profitable both to the landlord and the proprietor. Their maintenance and improvement are not resented by the neighborhood. Where such interests are at stake it is very difficult to define what are prohibited "structural alterations", and if there is a question of the safety of the building, structural alteration may be ordered by the building inspector; and under such orders the erection of what is practically a new building cannot be prevented.

An iron-clad prohibition against structural alterations in a non-conforming use in many cases defeats economy, and may lead to injustice. The authority to deal with cases requiring discretion but no change in the zoning map is very much needed.

#### Revision of the Zoning Regulations Desirable

It is impossible for any legislature to adopt a standard which is elastic enough to cover every conceivable case arising under the statute, particularly if the enterprises which the legislature seeks to regulate are those like building and uses of real estate are subject to constant changes. It is customary, therefore, for the statute to delegate to some administrative body the authority to deal with individual cases in a manner that substantial justice be done and the spirit of the law preserved. These specific cases are defined by the "Standard State Zoning Enabling Act", issued under the auspices of the Department of Commerce, 1926, "where, owing to specific conditions, a literal enforcement of the ordinance will result in unnecessary hardship". In Washington such cases as a rule involve differences in the natural grade of the lot, street junctions, slight excesses in permitted height and lot occupancy, and the use of alley lots. They may be meritorious cases, but to which the radical measures of rezoning should not be applied, but should be adjusted by administrative action.

The granting of a specific use without change in the zoning map and upon investigation and public hearing is not antagonistic

to the letter or spirit of the zoning act. The frequency of applications for such uses and the demand for prompt decisions would necessitate the holding of hearings before a special board, appointed by the Zoning Commission, which board would report its findings to the commission, which takes action. Such procedure could also supersede the present consent methods, when applications are made for specific uses in the residential and commercial districts, and would provide a way to deal with non-conforming uses.

Table I

<u>AREAS IN WASHINGTON, D.C. and USES OF PRIVATE PROPERTY</u>		
<b>AREAS</b>		
Total area measured by planimeter.....	38,611	acres
Streets and alleys.....	9,940	"
Other government areas.....	9,920	"
Private property.....	18,750	"
<b>USES</b>		
Dwellings.....	6,227	"
Apartment houses.....	350	"
Private institutions.....	900	"
Hotels and lodging houses.....	200	"
Railroads.....	669	"
Street railways.....	43	"
Public utilities.....	104	"
Private business enterprise.....	963	"
Vacant.....	<u>9,294</u>	"
Total.....	18,750	"

Table II  
HOUSING UNITS AND PERSONS PER ACRE  
IN BUILDINGS CONSTRUCTED UNDER ZONING

	Housing units per acre	Persons per acre
In detached dwellings.....	6.3	32
In semidetached dwellings.....	15.2	76
In row house dwellings.....	21.1	105
In apartment houses		
In residential "A" area.....	47.0	94
In residential "B" area.....	85.0	170
In residential "C" area.....	152.0	304
In commercial area.....	239.0	578

**Note:**

The acre is an acre of lot area to which should be added the surrounding street and alley area which averages for the entire city about 30% of the lot area.

The number of persons is estimated by averaging 5 persons per dwelling and two persons per apartment unit.

Table III

UNITS PER ACRE OF LOT AREA  
IN  
APARTMENT HOUSES  
CONSTRUCTED UNDER ZONING

Number of stories	Units in residential zone			Units in first comm. zone
	"A" area	"B" area	"C" area	
2	67.2	71.2	91.2	74.6
3	42.6	99.0	110.9	96.4
4	84.0	129.1	140.0	157.0
5	43.7	155.1	127.1	197.7
8	51.3	34.6	287.3	360.4
11	--	--	--	671.2
12	--	--	--	341.0
Average	47.0	85.0	152.0	236.0

The purpose of this table is to show how the height of the building and the permitted occupancy of the lot area affect the burden of population on the land, as the height and lot occupancy increase in the area districts.



Table IV  
AREAS USED FOR COMMERCE AND INDUSTRY  
BY  
PRIVATE ENTERPRISE  
1934

District	Total acres	Located in			Indust.
		Res.	First commerc.	Second commerc.	
A	318.7	13.3	234.2	71.2	--
B	44.3	33.9	144.8	103.2	161.6
C	167.2	5.0	81.9	39.8	40.5
D	34.0	2.6	26.9	3.4	1.1
Total	963.4	54.8	487.8	217.6	203.2

Table V  
ZONED AREAS USED BY RAILROADS  
AND  
PUBLIC UTILITIES  
1934

District	Total acres	Located in			Indust.
		Res.	First commerc.	Second commerc.	
A	11.3	--	--	.5	10.0
B	110.6	--	3.7	9.3	97.6
C	403.3	92.2	6.0	91.4	213.7
D	279.4	20.4	2.8	104.1	152.1
Total	804.6	112.6	12.5	205.3	474.2

Table VI

ZONED AREAS, NOV. 1933  
PRIVATE PROPERTY, SHOWN BY THE ASSESSOR'S BOOKS  
(Government property not included)

Dist.	Total area acres	Resident'l zone	First commerc'l zone	Second commerc'l zone	Industr'l zone
A	1,092.5	457.0	507.6	102.7	7.1
B	2,577.4	1,770.4	346.5	249.1	221.4
C	9,395.8	8,317.4	322.4	392.9	363.1
D	5,684.3	4,956.5	292.5	150.4	284.8
Total	18,750.0	15,501.3	1,469.0	913.2	866.4

## PERCENTAGE

A	100	42.0	46.6	11.1	0.3
B	100	68.6	13.4	9.7	8.2
C	100	88.6	3.4	4.2	3.8
D	100	87.2	5.1	2.7	5.0
Total	100	82.7	7.8	4.9	4.6

## RESIDENTIAL ZONE

Dist.	"A" area	"A" restrict area	"A" semirestr area	"B" area	"B" restrict area	"C" & "D" areas
A	--	--	--	--	8.9	448.1
B	28.7	74.6	--	927.9	248.6	445.5
C	1,206.4	5,274.5	146.8	1,295.9	315.7	77.0
D	4,633.9	102.9	--	216.9	--	2.9
Total	5,869.0	5,451.9	146.9	2,485.7	573.2	973.5

## PERCENTAGE

A	--	--	--	--	1.9	98.1
B	1.6	4.2	--	54.9	14.1	25.2
C	14.5	63.4	1.7	15.6	3.8	1.0
D	93.4	2.1	--	4.3	--	0.2
Total	37.9	35.2	0.9	16.0	3.7	6.3

Table VII  
POPULATION 1920 AND 1930

District	1920	1930	Increase	Decrease
A-1 & 2	49,182	36,005		13,177
A-3 & 4	98,853	83,956		14,897
Total	148,035	119,961		28,074
B-1	16,285	13,249		3,036
B-2	72,734	80,215	7,581	
B-3	48,048	51,108	3,060	
B-4	40,865	41,270	405	
B-5	30,631	23,553		7,078
Total	208,563	209,395	832	
C-1	4,429	12,252	7,823	
C-2	3,540	8,714	5,174	
C-3	5,562	18,008	12,446	
C-4	10,923	28,446	17,523	
C-5	6,071	18,133	12,062	
C-6	7,463	16,274	8,811	
C-7	14,315	18,941	4,626	
Total	52,303	120,768	68,474	
D-1	5,452	9,038	3,636	
D-2	11,041	14,703	3,662	
Total	16,493	23,791	7,298	
Institutions	12,177	13,054		
Total	437,571	486,869	49,298	

Table VIII

DISTRIBUTION OF THE COLORED POPULATION  
1920 and 1930

District	1920	1930	Increase	Decrease
A-1 & 2	10,236	11,328	992	--
A-3 & 4	48,586	59,300	10,714	--
Total	58,922	70,628	11,706	--
B-1	3,959	7,102	--	857
B-2	6,924	7,357	433	--
B-3	6,197	10,440	4,243	--
B-4	7,911	9,926	2,015	--
B-5	19,010	11,695	--	7,315
Total	44,001	42,520	--	1,481
C-1	262	1,523	1,264	--
C-2	197	1,726	1,529	--
C-3	661	516	--	45
C-4	200			200
C-5	414	509	95	--
C-6	422	--	--	422
C-7	1,468	608	--	860
Total	3,624	4,882	1,298	--
D-1	3,649	5,290	1,641	--
D-2	4,857	3,918	--	939
Total	8,506	9,208	702	--
D. C.	115,053	127,238	12,158	

Table IX  
BUILDINGS FOR WHICH PERMITS WERE ISSUED  
Sept. 1, 1920 - Dec. 31, 1933

By Geographical Districts					
Types	Total	Dist. A	Dist. B	Dist. C	Dist. D
Dwellings					
Detached	10,474	1	201	8,094	2,178
Semidetached	3,266	2	50	2,979	217
Row house	11,815	195	2,989	8,203	429
Flats - 2 family	96	11	57	14	14
4 family	256	10	94	141	11
with store	297	58	77	119	43
Apartment houses					
Number	701	196	293	203	9
Units in	23,663	9,183	7,993	6,337	150
Hotels	21	19	2		
Institutions	203	41	49	88	25
Stores	1,153	342	248	478	85
Other commercial and industrial bldgs.	1,085	376	311	306	92

Table X  
BUILDINGS FOR WHICH PERMITS WERE ISSUED  
Sept. 1, 1920 - Dec. 31, 1933

By Zoning Districts					
Types	Total	Resid'l zone	1st Com. zone	2d Com. zone	Indust'l zone
Dwellings					
Detached	10,474	10,310	120	44	1
Semidetached	3,266	3,226	28	12	
Row house	11,815	11,305	351	158	1
Flats - 2 family	96	74	11	11	
4 family	256	247	2	7	
with store	297	--	276	21	
Apartment houses					
Number	701	553	139	9	
Units in	23,663	17,172	6,401	90	
Hotels	21	6	13	2	
Institutions	203	157	43	3	
Stores	1,153	--	1,047	106	
Other commercial and industrial bldgs.	1,067		637	314	116

Table XI

HOUSING 1934 - BY TYPES OF DWELLINGS

Data Obtained from the Rent and Housing Survey, Taken Jan. 1934,  
and Amended by Records in the Zoning Office

District	Detached dwellings	Semidetached dwellings	Row house dwellings	Two family flat	Three family flat	Four family flat	Flat over store	Hotel, Club, Rooming house	Apartment houses		Population 1930
									No	Units in	
A-1		38	*709	16	26	81	434	462	124	4,893	15,208
A-2		172	*1,416	70	46	28	220	314	234	6,069	20,797
A-3		162	*6,161	576	117	79	697	426	155	5,806	57,748
A-4		174	*2,703	76	50	50	253	196			26,208
B-1		102	2,172	71	24	19	247	21	45	802	13,249
B-2	939	674	9,007	414	128	68	376	110	491	13,428	80,215
B-3	103	400	8,222	454	71	95	397	38	93	1,559	51,108
B-4	249	734	6,146	432	116	113	378	64	80	839	41,270
B-5		347	3,961	377	65	48	363	14	26	391	23,553
C-1	464	64	68	8	--	--	7	--	32	2,008	12,252
C-2	830	60	308	8	3	--	6	7	42	2,821	8,714
C-3	4,853	901	1,051	14	4	9	55	--	46	2,026	18,008
C-4	1,048	942	4,445	43	10	6	49	--	54	1,291	28,446
C-5	3,527	564	1,532	21	2	39	76	--	40	838	18,133
C-6	2,362	304	1,140	65	1	16	24	1	20	390	16,274
C-7	1,538	244	2,132	112	15	179	79	--	31	606	18,941
D-1	2,351	63	16	14	--	--	48	--	1	40	9,088
D-2	2,428	105	388	33	5	26	84	--	8	111	14,703
Total	20,692	6,059	51,562	2,804	683	856	3,793	1,653	1,522	43,921	

\* Includes detached dwellings



Table XII

## HOUSING AND POPULATION

	Dist. A	Dist. B	Dist. C	Dist. D	Total
Housing units in dwellings & flats	16,248	40,897	30,370	5,648	93,199
Housing units in apartment houses	16,768	17,022	9,980	151	43,921
*Capacity to house population	114,956	238,529	171,810	28,542	553,837
**Population 1930	119,961	209,395	120,768	23,791	473,871

\* Obtained by estimating 5 persons in dwellings and flats and 2 persons in apartment units. Hotels, clubs and rooming houses are not included in the estimate of housing capacity.

\*\* Persons in institutions are not included.

Table XIII

## RATIOS OF ZONED AREAS TO POPULATION

	Dist. A	Dist. B	Dist. C	Dist. D	Total
Zoned area					
Acres	1,093	2,577	9,396	5,694	18,759
Vacant 1932	--	294	4,640	4,360	9,294
Ratio per 100 persons of					
Zoned area	0.90	1.23	7.78	23.72	18.17
Vacant area	--	0.13	3.84	18.17	3.95

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