BUFFALO MASTER PLAN

BUFFALO MASTER PLAN
Chapter I Introduction
Chapter II Objectives
Chapter III Strategy

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CITY OF BUFFALO, NEW YORK FRANK A. SEDITA, Mayor

The Master Plan is divided into eight chapters as indicated below:

Chapter I	-	Introduction
Chapter II	-	Objectives
Chapter III	-	Strategy
Chapter IV	-	Residential Plan
Chapter V	-	Recreation and Open Space Plan
Chapter VI	-	Commercial Plan
Chapter VII	-	Industrial Plan
Chapter VIII	-	Transportation Plan

Community summaries reports will be periodically released. These will more specifically describe activities and implementation programs in the city's twelve communities. Additional reports involving various aspects of development will also be released from time to time. Revised chapters of the Master Plan will be prepared as change requires.

INTRODUCTION

BUFFALO MASTER PLAN
Chapter I

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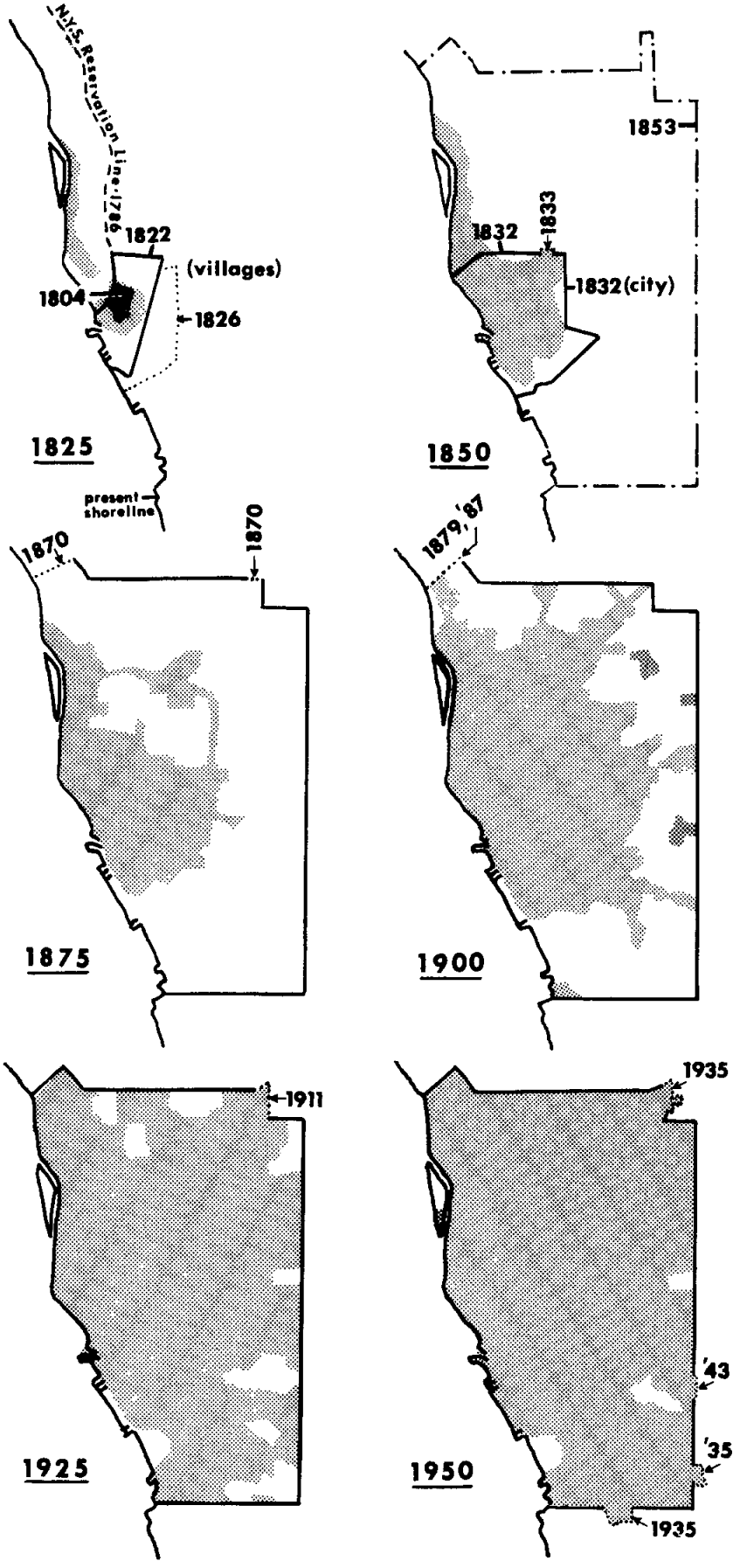
Chapter I

INTRODUCTION

The plan for New Amsterdam was drawn in the early years of the nineteenth century. From this plan the Village of Buffalo grew until it was incorporated as a city in 1832. Twenty-one years later the City of Buffalo made its last major physical expansion.

By 1900 the city reached its peak in the national ranking of population, eighth. The Port of Buffalo in that year ranked third in the nation in terms of tonnage handled. Also in 1900 the city held its maximum percentage of the population in Erie County and of its present metropolitan area. The concentration of urban population had begun to spill over the city's 1853 boundaries before the turn of the century.

In its early years Buffalo capitalized on its geographic location and subsequent water and rail transportation facilities. Electrical power from Niagara Falls and a growing labor supply were factors influencing the city's economic growth. Buffalo's greatest population gains were made in the mid-and-late nineteenth century due to German, Italian, Irish and Polish immigration. The city's major growth periods



POLITICAL AND PHYSICAL
DEVELOPMENT OF BUFFALO
Division of Planning-Dec. 1970

LINE DRAWING-indicates political boundaries and year established.

SHADING-indicates urbanized sections: industrial areas, parks, local street patterns; at time of map date.

POPULATION

Year	Buffalo population in thousands	Buffalo as a % of Erie County	Buffalo as a % of Erie & Niagara Co.
1825*	3.	13%	8%
1850	42.	42	30
1875*	135.	68	54
1900	256.	81	69
1925*	540.	78	65
1950	580.	65	53
1975*	460.	40	32

*Estimated.

Other figures, U.S. Census, N.Y. State Census.

coincide with the development of port facilities, the growth of the milling industry and the development of iron production.

For the most part frame structures were built on small lots, sometimes only twenty-five feet wide. In many areas structures occupied almost the entire lot. Where there was room on a lot, a second structure was often added in the rear of the lot. In many cases the main structure was divided into several housing units.

The city adopted its first zoning ordinance in 1926. By that time there was little land left within the city's boundaries that had not been developed. The city's population reached its peak during World War II with nearly 590,000 persons squeezed into its small five by eight mile area.

During the war black immigration from the south occurred in significant numbers as persons sought employment in war industries. This migration continued after the war and, like the migration of the nineteenth century, represented individuals seeking a better way of life for themselves and for their children.

Housing has become a critical problem in the city. Its inventory of housing is very old in comparison to other cities due to its antiquated boundaries. Conversions of single and two family into multiple dwellings

have been complicated by rapid occupancy turnover that often causes an accelerated deterioration of structures. Many such units are absentee-owned and are in extremely poor condition. Due to the intensely developed land the provision of adequate recreation facilities is extremely difficult.

CONCEPTS

The Master Plan sets forth a pattern of urban development which indicates the goals of the city. The long-range aspect of the plan is necessary to provide direction for various activities of the city. Review and updating the plan will be necessary periodically to consider changing factors.

The plan must be concerned with the relationship of all elements of the city. It is general in nature due to its long-range objectives. Its general framework permits more detailed devices and projects to be developed at the time of their implementation.

Elements of the plan are divided into five principle parts: The residential plan, the community facilities plan, the commercial plan, the industrial plan, and the transportation plan. Each of the elements is related to the others.

In some areas the proposed residential density is the same as that

which exists. In other areas decreases in density are recommended but this is balanced by proposed increases in less intensely developed areas. Where a balance of density is recommended, a reorganization of land uses more appropriate to urban living is implied. Where obsolete housing is to be replaced, replacement should be based on newer housing concepts. Sufficient space for recreation, open spaces and off-street parking must be provided. The removal of substandard residential structures either by rehabilitation or clearance is a primary goal. Consideration of the physical appearance of Buffalo must include recognition of the deterioration of both residential and non-residential uses. The proposals of the Master Plan call for improvement of the physical appearance of the city.

The Basis for Change

The City of Buffalo is fully developed. The use of its land has already been decided and its corporate limits are fixed. The inability of central cities to adapt to normal market forces has placed them at a disadvantage in dealing in the metropolitan marketplace. The potential for change exists but Buffalo cannot easily provide the land and facilities necessary to accommodate new activities or replacement facilities.

Dispersion

There are restraints placed on the city's ability to accommodate

and adopt to functional changes. The most obvious is the financial limitation of the city not only to accommodate change but also to provide and maintain desirable service levels as service demands increase. The City of Buffalo has been pressed into a role of serving low income families of the metropolitan area while its tax base has shrunk. Areas surrounding the city have attracted commercial and industrial uses from the city and newer residential areas have been provided outside the city. The city has been drained of some of its more attractive uses from a tax base consideration. It has been forced to follow a course of expanding services for uses which did not follow the more valuable tax resources attracted outside the city proper.

The land area of Buffalo is very small in comparison to other central cities of similar population. In comparison to other urbanized areas of comparable size, the central city of Buffalo is a much smaller percentage of the urbanized area. This concentrates the problems of the large Buffalo Urbanized Area into the relatively small area of the City of Buffalo.

Because of its 1853 boundaries the central city of Buffalo finds its housing conditions distorted when compared to other cities of comparable population. Many of the regional shopping centers located beyond the city line draw sales from residential areas within the city as well as from

without the city. In comparable urbanized areas their locations would be within the corporate boundaries of the central city. Industrial complexes just outside Buffalo's boundaries likewise would be within the central city of comparable urbanized areas. The post World War II housing boom found new residential areas being built outside of the city proper. These matters leave a particularly old and shallow tax base from which the city must operate.

Federal and state programs have assisted development outside the city proper to a marked degree in the last two decades. The provision of expressway routes has caused a loss of tax base within the city proper and an acceleration to the trend toward decentralization.

The major reasons for decentralization have been a population shift to the suburbs and the economic advantages for commercial and industrial uses to seek a decentralized location. For the city this move has resulted in an abandonment of obsolete structures and a loss of tax base while service costs have increased.

Centralization

The central city has always played host to specialized functions. Services are provided for the entire metropolitan area and these have shown a steady growth rate corresponding not to Buffalo's size but to

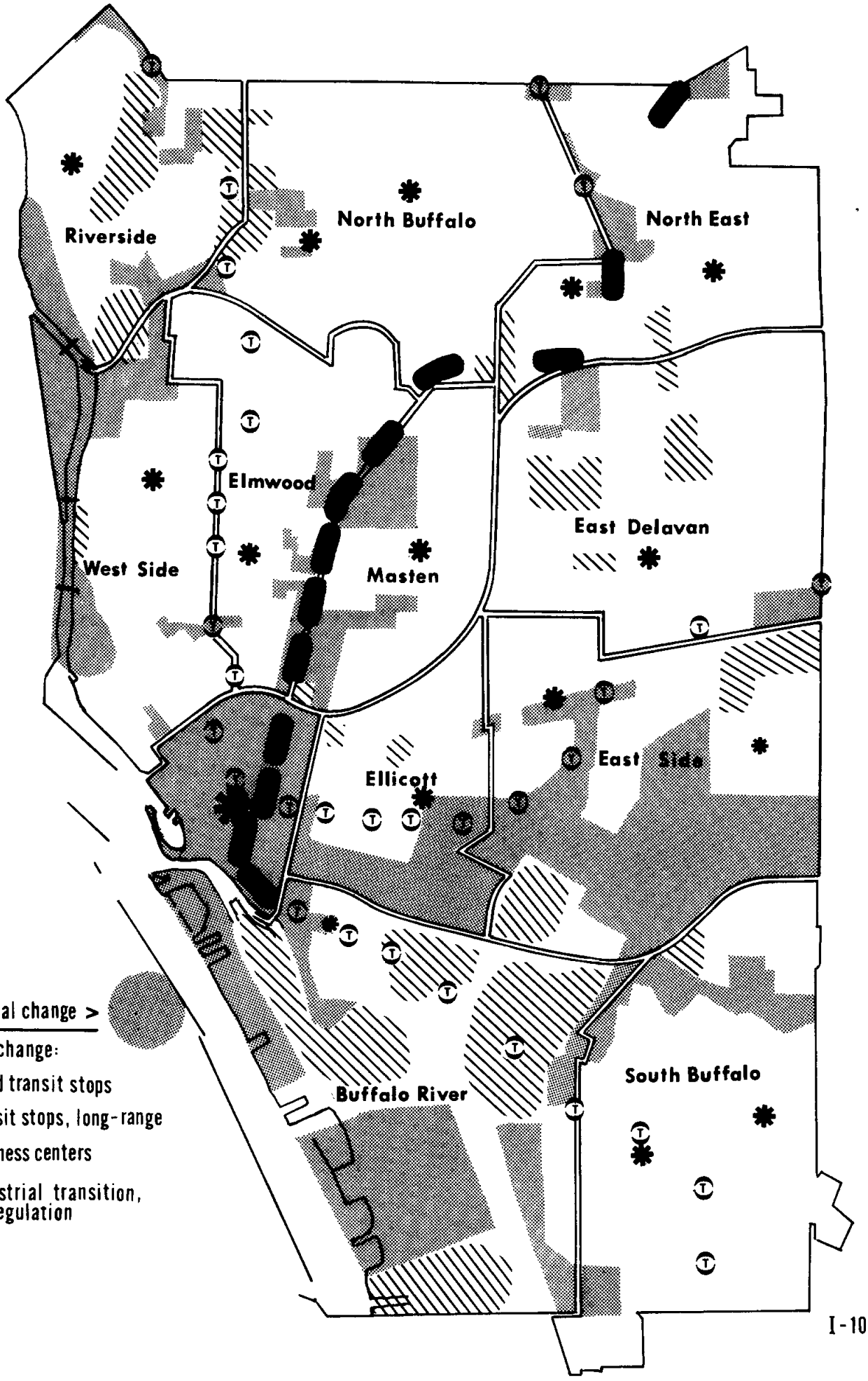
that of Buffalo's urbanized area. Institutional, educational, medical and cultural uses continue to grow in the city proper. These uses unfortunately are tax exempt and often expand into areas that had been tax producing. It is hoped that the need for centralization of certain commercial uses will increase the importance of Buffalo's central business district and add to the city's revenue to carry out other programs.

At the same time as the development patterns of the last two decades occurred, there grew a marked pattern of distribution of income groups in various local units of government. The City of Buffalo in such a process has evolved into what has been called the poorhouse of the urbanized area. This form of centralization has placed service demands on the city's dwindling tax base that greatly exceeded past demands. As a result, replacement of substandard housing to provide standard housing for low income groups must take place on some of the highest valued land in the metropolitan area. Tax exemptions for such housing is necessary, thus complicating the city's ability to provide schools and services which are needed at an increasing pace. The development of sound municipal policy is a crucial and necessary step to revitalize Buffalo.

Areas of Change

The need for the city to capitalize on the forces of change wherever possible is of utmost importance. The Planning Board must consider factors involving the entire metropolitan area but at the same time it must function with jurisdiction only within the boundaries of the city proper. There are large areas of gray housing in the city that do not conform to popular or advertised images today, yet which are not seriously deteriorated nor lack basic facilities. Such housing will have to continue to serve as housing resources for the city and the city will have to strive to make these and the neighborhoods in which they stand as attractive as possible through its actions during the period covered by this Master Plan.

The map labeled "Areas of Potential Change" shows areas which are apt to call for decision-making on the part of the city in the next two decades. Changes indicated by the Community Renewal Program, the use of vacant land, areas of likely change and areas affected by transportation proposals are shown. Proposed stops of the Buffalo-Amherst rapid transit line are shown as possible stimulants for development in adjacent areas. Longer-range mass transit stops are also indicated as stimulants for development in the more distant future. Community centers where multi-function business activities exist to


Riverside
North Buffalo
North East
Elmwood
West Side
Masten
East Delavan
Ellicott
East Side
Buffalo River
South Buffalo
Areas of potential change >
Stimulants for change:
rapid transit stops
transit stops, long-range
business centers
industrial transition, regulation

a significant economic degree are indicated. These could serve as stimulants to attract additional activity in concentrated centers. Industrial areas where changing functions or improved regulations could improve their relationship to surrounding areas are also indicated.

The purpose of this presentation is not to show decisions that have been made nor is it to be considered a policy guide. It is shown to indicate areas in which decisions may have to be made. No evaluation of uses nor of change is intended. The areas of potential change are shown to alert interested parties of the probable need for decisions in the future. A need exists to direct the forces of change and to seek the future development of the city in a comprehensive manner. Guidance will be presented in the various chapters of the Master Plan.

OBJECTIVES

BUFFALO MASTER PLAN
Chapter II

OBJECTIVES

BUFFALO MASTER PLAN
Chapter II

Chapter I reviewed factors in the development of Buffalo and potential change in the city. This chapter will deal with general objectives. The following chapter will cover strategy and discuss policies.

The Master Plan is presented in summary in this chapter. The Plan is not to be considered an end in itself but a document to establish the direction in which the city should move. It becomes an instrument constantly projecting twenty to twenty-five years into the future, tempered by new developments.

The Residential Plan is based on a city of a half-million persons within its present boundaries. The present decline in population is foreseen as stopping within a decade and a modest increase taking place within the planning period. The overall acreage for residential uses would decrease slightly in order to provide more land for recreation and open space. Population densities would decrease in some areas while increasing in others. Due to the slight increase in population and a decrease in residential acreage, reconstruction of residential areas

will place a greater emphasis on townhouse, apartment and cluster types of development. Population density increases will be proposed in proximity to major concentrations of commercial and institutional activities as well as adjacent to major transit stations.

There is a substantial amount of substandard housing located in identifiable blighted areas. Despite a sizeable decline in population within the city in recent years, a low housing vacancy rate still plagues the city. This, together with the relatively low income of the occupants of substandard housing, results in a pressing need for the construction of new housing facilities before extensive demolition of substandard units can proceed.

The city is small in size compared to the central cities of comparable urbanized areas. The low income population of the Buffalo Urbanized Area is concentrated in a central city with less resources and less open land than in comparable urbanized areas. The city's boundaries remain as pronounced barriers in which the urban low income housing problem must be solved within the foreseeable future.

These matters call for efforts to increase the vacancy rate in the city by providing housing on new residential sites before an ambitious program of clearing substandard housing can be continued. Related activity would call for serious efforts to break the city line barrier for

low income developments and efforts to increase the level of income of those in blighted areas. Increased income would result in more ownership, rehabilitation, and wider choices in housing. Meanwhile full advantage of all subsidized housing programs must be taken to provide new housing in the city.

Related to the Residential Plan and to population densities, the Community Facilities Plan sets desirable standards and location patterns for supporting facilities. Within this plan adjustments may be made to correspond to changing population patterns at the community or neighborhood level as future developments may require. Both the Residential Plan and the Community Facilities Plan emphasize neighborhoods and communities in terms of planning units to establish a better planning scale. The Community Facilities Plan deals with recreation and open space as elements of urban design. The development, protection and use of the city's river and lake fronts are matters of concern. Utilities, medical, health and educational facilities are considered supporting facilities.

The Commercial Plan has, as a major consideration, the concentration of commercial retail centers within the city. This is proposed to serve as a means of increasing their attractiveness and efficiency. The specialized function of the Central Business District

should be strengthened. This district now supplies nearly a quarter of the property taxes for the city and is a valuable asset in carrying out the city's programs.

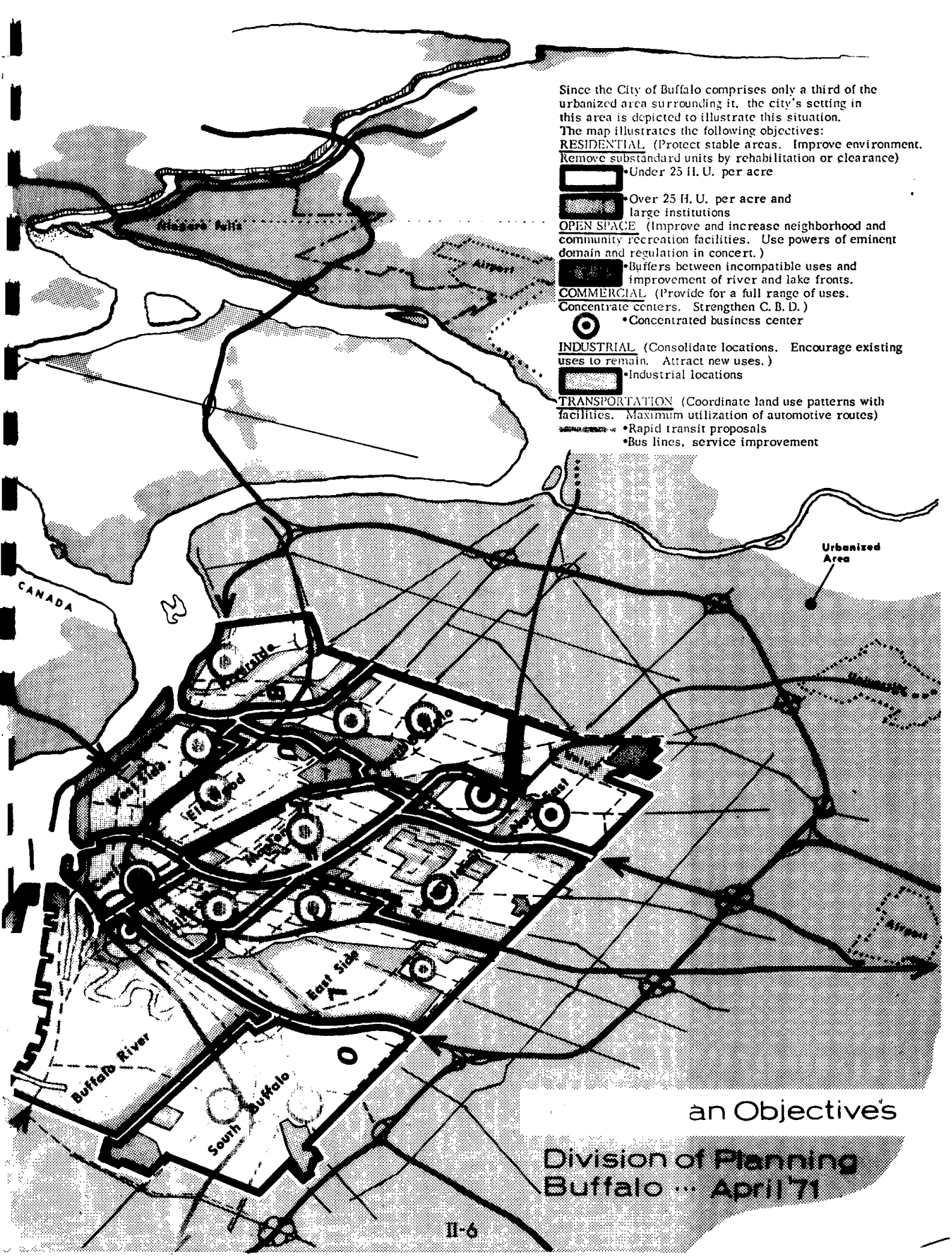
The Industrial Plan proposes the consolidation of existing industrial areas and the orderly development of industrial growth. Buffalo became a major center of manufacturing and heavy industry following its commercial peak brought about by the old Erie Canal. A slump occurred in industrial activity after World War II. Favorable prospects for improvement of Buffalo's economy lie in the expansion of services and other non-manufacturing employment as well as reasserting Buffalo as a manufacturing center. Job development and manpower training are important considerations in industrial planning.

The Transportation Plan sets forth general requirements to adequately serve the proposed land use arrangements expressed in the Master Plan. At the same time they emphasize the central city function of Buffalo on the Niagara Frontier. A difficult but desirable objective is the consolidation of diverse railroad property and lines owned by various companies serving similar or out-dated functions. While automobile traffic must be served, proposals for traffic improvements must be weighed against all the elements of the Master Plan. A

desirable planning consideration is to encourage a close relationship between places of residence and employment. Of major significance is the rapid transit proposal within the city. Such facilities not only provide tremendous carrying capacities in comparison to the automobile, but they also offer development opportunities of a unique nature.

Inherent in the physical planning of the city are a series of developmental policies which need to be pursued if the city is to follow the direction suggested by the Master Plan. The following chapter will discuss general proposals in an attempt to establish a framework for implementation of the plan.

It is essential that the framework be constantly reviewed with respect to changes that may occur. To work within the planning framework, administration must function effectively and be responsive to elected officials and the citizens of Buffalo. The ability to evaluate and act upon changes through the expeditious application of policy is necessary in achieving a desirable urban environment.



an Objectives

Division of Planning
Buffalo ··· April '71

STRATEGY

BUFFALO MASTER PLAN
Chapter III

STRATEGY

BUFFALO MASTER PLAN
Chapter III

The policies of the Master Plan provide a flexible guide. Periodic review and evaluation are required to consider changing factors. The policies establish a perspective to relate immediate decisions with future implications in the light of overall goals of the city.

PLANNING POLICIES

General

1. Capitalization on areas of positive change - Where desirable changes are occurring within the city or where potential exists, necessary supporting facilities and services should be provided.
2. Reversal of negative change - In declining areas where incentive and imagination can stimulate positive change, a policy to encourage necessary measures should be pursued.
3. Consideration of development impact on ethnic harmony and equality - Whenever social considerations are affected by physical developments, racial and ethnic implications should be evaluated. It must be recognized that physical and social problems are interrelated.

4. Consideration of municipal revenue - To assist in financing necessary programs, developments which add to the city's tax base will be encouraged.

5. Increase the effectiveness of comprehensive planning - With the growth of single-purpose agencies and the historic implementation problems of planning within city structures, all efforts toward strengthening a central planning agency to direct public activities will be encouraged.

6. Participation - Policies should be expressed at the community level and public participation called upon to develop final plans. Decentralization of decision-making should be considered a policy whenever possible and improved channels of communication between communities and the city administration should be sought.

Residential

1. Balancing of residential density - In planning for a city of a half-million population, some areas will decrease in population density while others will increase. Generally a balancing of population will be called for in rebuilding. Reorganization into more compact residential developments will enable land to be freed for open space, parking and recreation facilities.

2. Removal of substandard housing in the city - All substandard units must be made standard through rehabilitation or clearance

when rehabilitation is not possible. The city's inventory of housing must be increased to supply relocation resources.

3. Restraint in areas where demand for change is not yet evident - In areas of decline where change is not desired by residents as yet, government action should be restrained until a local demand arises.

4. Preservation and enhancement of stable areas - Strict enforcement of development standards and regulations must be carried-out to assist in the maintenance of stable areas. Public services and facilities to enhance these neighborhoods must be provided.

5. Extension of choice in housing - All income, ethnic and racial groups should have freedom in choosing their places of residence within both proposed and existing housing resources.

6. Encourage attractive design in new housing - Variety in housing types, innovative approaches and an emphasis on attractive structures should be sought. The setting and lay-out of the structures is a matter of major concern.

Recreation and Open Space

1. Provide accessible recreation facilities - An emphasis should be placed on the provision of recreation near concentrations of population. Particular emphasis on younger persons and on community and neighborhood facilities should be made.

Provision for seasonal activities should have a high priority.

2. Open space as a design element - Open space is to be regarded as a necessary element of urban design. Its provision in proposed developments will be sought, related to the scale of structures.

3. Environmental concern - Programs to eliminate pollution and to improve ecological relationships will be supported.

4. Enhancement of natural features - Concern is expressed for the city's lake and riverfronts. Measures to improve these and other natural features within the city will be continued.

5. Preservation of existing parks - Due to the loss of park land in recent years for other uses, great reservation is held for any proposals that seek to convert park lands for other uses without replacement in kind.

Non-Residential

1. Removal of substandard facilities - Obsolete and deteriorating non-residential structures should be rehabilitated or cleared. Improved environment should be sought for existing uses as well as for new facilities.

2. Encourage commercial and industrial developments - In order to supply employment opportunities and to increase the city's

tax base to assist in providing revenue for other programs, commercial and industrial uses will be encouraged to build or to expand in keeping with the proposals of the Master Plan.

3. Increase the skilled labor supply - Through training or re-training programs, an increase in the skilled labor supply will both assist individuals and attract new employment opportunities.

4. Improve the central business district - As a major revenue source, and one of even greater potential, the central business district should continue to be improved. Its environment and circulation system should offer a unique setting in the region.

5. Concentrate related uses - Non-residential uses which are related in function should be encouraged to develop in close proximity to one another.

6. Buffers should be provided between incompatible uses - Buffers should be established between incompatible residential and non-residential uses.

Transportation

1. Balance transportation requirements with other city needs - Other urban concerns must be evaluated in transportation proposals. Social and aesthetic values must be added to functional and technical considerations.

2. Improve mass transit - Improvements in public mass transportation facilities must be made. Rapid transit facilities should be provided.

3. Encouragement of relating places of residence and employment - Besides relating intensive use areas to major transit or other transportation facilities, the close relationship of places of residence to places of employment shall be encouraged.

4. Utilize existing facilities fully - The traffic carrying capacity of existing streets should be increased to their maximum to reduce the need of additional facilities. Pedestrian safety must remain a major consideration however.

Tools of implementation

1. Coordination - The degree of coordination by units of city government bears a direct relationship to the effectiveness of the Master Plan. General agreement with the policies of the plan should be achieved within all units of city government. Unified goals for all public activities should exist under comprehensive planning.

2. Acceptance and Participation - The effectiveness of the Master Plan may be measured by its application and by public acceptance. Policies should be expressed at the community level, and public participation called upon to develop and implement plans.

3. Zoning - It is essential that the land use controls adopted by the Common Council reflect the objectives of the Master Plan. In this light the zoning ordinance should be reviewed periodically in conjunction with the review process implicit within the plan.

4. Subdivision Control - In order to better control the use or reuse of land, the subdivision control ordinance, which reflects the objectives of the Master Plan, fills a need for the control of large scale developments beyond the more limited controls of the zoning ordinance.

5. Official Map - The Official Map shows streets, highways and parks established by law. It is recommended by the Planning Board and adopted by the Common Council. The map indicates existing facilities and may show proposed facilities that are essential to proper future development.

6. Capital Improvements Program - Codes and ordinances are the public means of guiding the development of private property. Public facilities and programs are coordinated through a capital improvements program. A strong comprehensive planning agency needs this tool to guide the city in a long-range financial plan. This is needed in Buffalo to connect planning activities to implementation programs with an intermediate programming step.

7. Urban Renewal - Urban renewal programs emphasize redevelopment activities which rely on the city's power of eminent domain to eliminate inappropriate land uses. Since the application of this program is limited by fiscal capabilities of the city, a Community Renewal Program has been developed to determine how this tool might be most effectively employed. Reuse of land must be in conformity with the Master Plan.

The community planning process is a continuous and inter-related function that may be divided into four categories: inventory and analysis, goals and objectives, plan development and implementation. The end of such a process is a master or comprehensive plan. However the plan cannot be considered static, and the planning process must continue both in evaluation of the plan and in its day-to-day application.

RESIDENTIAL PLAN

BUFFALO MASTER PLAN
Chapter IV

RESIDENTIAL PLAN

OBJECTIVES

The Residential Plan is based on a city of a half-million persons within its present boundaries. The present decline in population is foreseen as stopping within a decade and a modest increase taking place within the planning period. The overall acreage for residential use would decrease slightly in order to provide more land for recreation and open space. Population densities would decrease in some areas while increasing in others. Due to the slight increase in population and a decrease in residential acreage, reconstruction of residential areas will place a greater emphasis on townhouse, apartment and cluster type of development. Population density increases will be proposed in proximity to major concentrations of commercial and institutional activities as well as adjacent to major transit stations.

There is a substantial amount of substandard housing located in identifiable blighted areas. Despite a sizeable decline in population within the city in recent years, a low housing vacancy still plagues the city. This, together with the relatively low income of the occupants of substandard housing, results in a pressing need for the construction of new housing facilities before extensive demolition of substandard units can proceed.

The city is small in size compared to the central cities of comparable urbanized areas. The low income population of the Buffalo Urbanized Area is concentrated in a central city with less resources and less open land than in comparable urbanized areas. The city's boundaries remain as pronounced barriers in which the urban low income housing problem must be solved within the foreseeable future.

These matters call for efforts to increase the vacancy rate in the city by providing housing on new residential sites before an ambitious program of clearing substandard housing can be continued. Related activity would call for serious efforts to break the city line barrier for low income developments and efforts to increase the level of income of those blighted areas. Increased income would result in more ownership, rehabilitation, and wider choices in housing. Meanwhile full advantage of all subsidized housing programs must be taken to provide new housing in the city.

POLICIES

The residential policies of the master plan provide a flexible guide. Periodic review and evaluation are required to consider changing factors. The policies establish a perspective to relate immediate decisions with future implications in the light of overall goals of the city. Specific residential policies follow.

1. Balancing of residential density - In planning for a city of a half-million population, some areas will decrease in population density while others will increase. Generally a balancing of population will be called for in rebuilding. Reorganization into more compact residential developments will enable land to be freed for open space, parking and recreation facilities.

2. Removal of substandard housing in the city - All substandard units must be made standard through rehabilitation or clearance when rehabilitation is not possible. The city's inventory of housing must be increased to supply relocation resources.

3. Restraint in areas where demand for change is not yet evident - In areas of decline where change is not desired by residents as yet, government action should be restrained until a local demand arises.

4. Preservation and enhancement of stable areas - Strict enforcement of development standards and regulations must be carried-out to assist in the maintenance of stable areas. Public services and facilities to enhance these neighborhoods must be provided.

5. Extension of choice in housing - All income, ethnic and racial groups should have freedom in choosing their places of residence within both proposed and existing housing resources.

6. Encourage attractive design in new housing - Variety in housing types, innovative approaches and an emphasis on attractive structures should be sought. The setting and lay-out of the structures is a matter of major concern.

Material based on 1960 Census information will be replaced with that of the 1970 Census when it becomes available.

COMPARATIVE ANALYSIS • The purpose of the comparative analysis is to determine the composition and character of Buffalo's housing as compared to that of similar cities. Table 1 indicates the percentage distribution of housing units by tenure. Percentagewise, Buffalo contains more renter occupied units than the comparative cities, excepting Cincinnati. It is important to note that, while Buffalo contains a much higher than average percentage of renter occupied units, it also contains a lower than average vacancy ratio. Normally, vacancy rates increase directly with renter occupancy.

The variety of housing types within an urban area will generally reflect the needs and desires of the population. In large metropolitan areas, such as Buffalo, the majority of single family structures are found outside the central city where vacant land is available and costs do not prohibit low density development. This fact is brought out in Table 1, which indicates that single family detached structures account for only 35 per cent of the housing units in the average of the five comparative cities. Table 1 also indicates that Buffalo contains an unusually high percentage of two family structures, more than twice the 5-city average of 21.6 percent.

The United States Census of Housing indicates that, in 1960, Buffalo's housing was the oldest of the comparative cities, with 83.5 percent of the housing units being more than 30 years old. Assuming a useful life of 40 to 50 years for frame structures, which predominate in Buffalo, almost all of the city's present housing will be inadequate by the end of the planning period.

ANALYSIS OF HOUSING AND RESIDENTIAL LAND • This section of the Residential Plan presents a generalized citywide analysis of housing conditions, densities, and residential land acreage. As was indicated in the previous comparative analysis, a large portion of the housing in Buffalo is of the two family type. Table 2 shows that two family structures, which contain 44.9 percent of all housing units, occupy 38.8 percent of the residential land acreage. These structures often cover as much as 80 percent of the lot area, thereby greatly overcrowding the land. Single family structures contain 28.3 percent of the housing units and occupy 52.9 percent of the residential land; and multiple family structures, while occupying only 8.3 percent of the residential land, contain 26.8 percent of the housing units.

On an individual basis, those communities on the periphery of the city; South Buffalo, North East and North Buffalo; contain predominantly single family housing. The communities containing

*Baltimore, Maryland; Cleveland, Ohio; Cincinnati, Ohio; Detroit, Michigan; and Milwaukee, Wisconsin.

TABLE 1–COMPARATIVE HOUSING ANALYSIS (in percent) Source: 1960 U.S. Census of Housing

HOUSING OCCUPANCY

Tenure	Buffalo	Cincinnati	Cleveland	Milwaukee	Baltimore	Detroit	5-City Average
Owner Occupied	42.2	38.1	42.9	46.3	51.6	54.0	46.6
Renter Occupied	53.2	56.2	52.5	49.3	43.3	38.9	48.0
Vacant	4.6	5.7	4.6	4.4	5.1	7.1	5.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0

STRUCTURE TYPES

Units	Buffalo	Cincinnati	Clevelahd	Milwaukee	Baltimore	Detroit	5-City Average
1 – Detached	24.4	33.2	36.5	39.0	13.3	53.1	35.0
1 – Attached	3.9	4.3	7.0	3.9	57.3	7.1	15.9
2	44.9	19.7	25.6	32.7	12.1	17.8	21.6
3 and 4	13.2	19.4	12.2	9.5	8.9	5.1	11.0
5 or more	13.6	23.4	18.7	14.9	8.4	16.9	16.5
Total Units	100.0	100.0	100.0	100.0	100.0	100.0	100.0

STRUCTURE AGES

Period Built	Buffalo	Cincinnati	Cleveland	Milwaukee	Baltimore	Detroit	5-City Average
1959 – March, 1960	.5	1.4	.6	2.3	1.2	.5	1.2
1955 – 1958	2.2	3.5	2.6	8.4	3.9	2.6	4.2
1950 – 1954	2.6	6.4	4.0	10.8	9.0	7.0	7.4
1940 – 1949	2.9	8.7	6.2	7.6	13.2	15.4	10.2
1930 – 1939	8.3	12.4	10.0	9.2	8.9	15.7	11.2
1929 or earlier	83.5	67.6	76.6	61.7	63.8	58.8	65.8
Total Units	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 2–RESIDENTIAL ACREAGE BY TYPE OF STRUCTURE

COMMUNITY	Single Family Acreage	Single Family Percent	Two Family Acreage	Two Family Percent	Multi-Family[1] Acreage	Multi-Family[1] Percent	Multi-Family[2] Acreage	Multi-Family[2] Percent	Totals Acreage	Totals Percent
Central	9.5	11.7	31.1	37.5	32.2	38.9	9.9	11.9	82.7	100.0
West Side	251.6	33.5	406.7	54.1	93.4	12.4	.0	–	751.7	100.0
Elmwood	247.8	42.3	198.7	33.8	126.8	21.6	12.9	2.3	586.2	100.0
Masten	310.7	43.4	377.7	52.8	23.0	3.2	1.1	.6	712.5	100.0
Ellicott	154.1	38.3	174.7	43.5	41.6	10.4	31.3	7.8	401.6	100.0
Buffalo River	90.4	49.3	54.7	29.8	31.4	17.1	6.9	3.8	183.5	100.0
South Buffalo	851.7	67.3	389.4	30.7	24.2	1.9	1.2	.1	1,266.5	100.0
East Side	420.7	54.5	317.2	40.9	34.2	4.6	–	–	772.1	100.0
East Delavan	671.1	51.5	531.8	40.8	82.0	6.4	16.4	1.3	1,301.3	100.0
North East	605.0	66.2	262.1	28.7	46.3	5.1	.2	–	913.6	100.0
North Buffalo	731.3	60.1	421.5	34.6	64.1	5.3	–	–	1,216.8	100.0
Riverside	274.0	50.9	219.1	40.5	44.2	8.5	.3	.1	537.7	100.0
Totals	4,617.9	52.9	3,384.7	38.8	643.4	7.4	80.2	.9	8,726.2	100.0

[1] 5 stories or under.
[2] 6 stories or over.

Source: Land Use Survey- Division of Planning.

a majority of two family structures are West Side and Masten. Multiple family structures predominate in the central core and along major transportation routes within the Central, Elmwood and Ellicott Communities.

Patterns of Blight • Three factors have apparently influenced the pattern and degree of blight in Buffalo:

- The age of the housing indicates that much of the blight has occurred through normal attrition.
- The intense use of the residential land with two family and multiple family structures on small lots has accelerated the spread of blight.
- The location of residential uses within nonresidential areas, particularly industrial, has created pockets of housing which have declined rapidly.

According to a structural conditions survey, conducted by the Consultant in connection with the development of the Community Renewal Program, blighted housing is located in three general areas (See Figure 1):

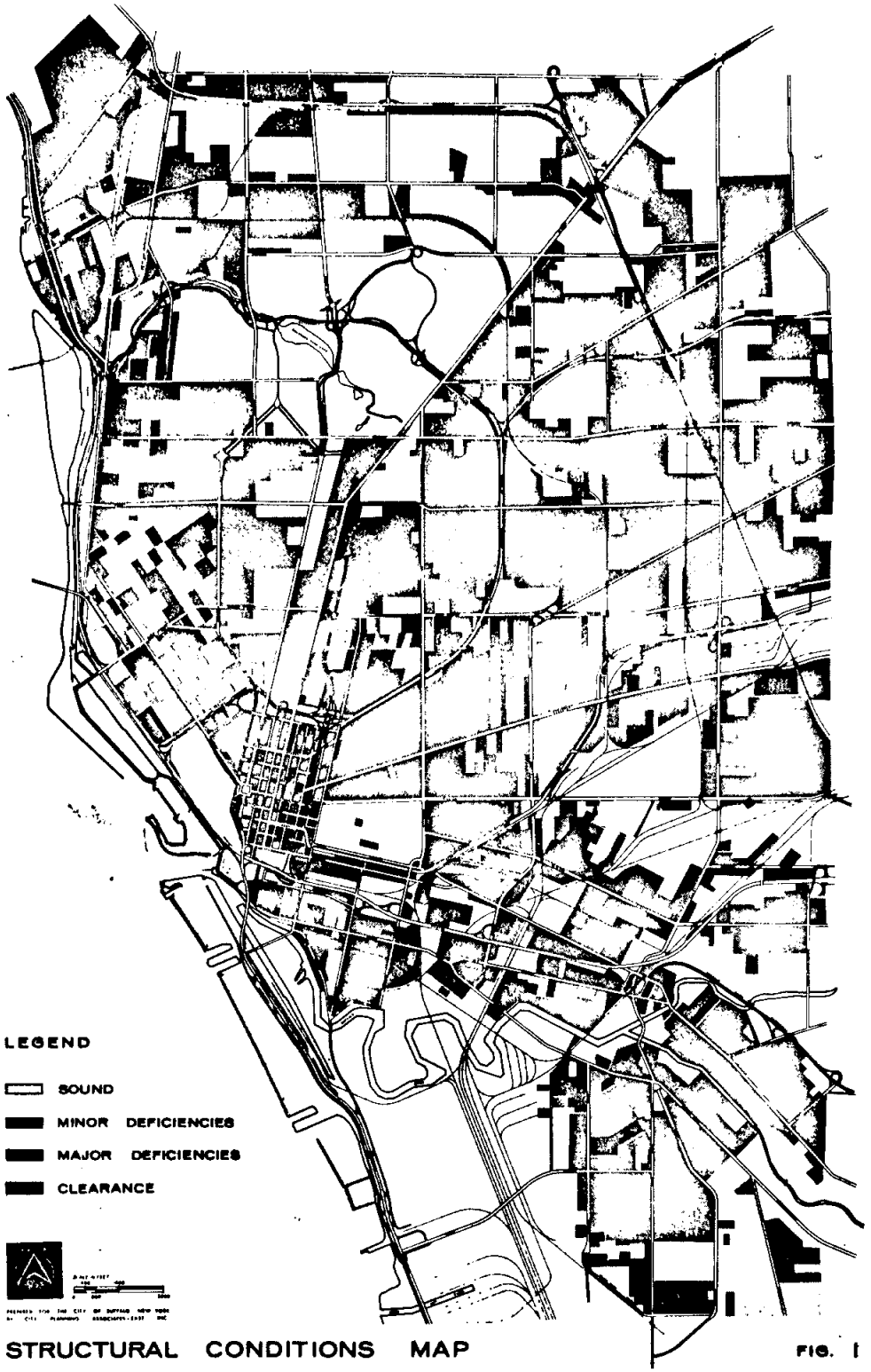
- In the older central portion of the city and generally spreading eastward in a concentric pattern into the Masten and Ellicott Communities. These areas are heavily populated and have medium high densities achieved through intensive use of the land with low density structures.
- Within the industrial areas along the lake and the Niagara River, particularly in the Waterfront and Auditorium Neighborhoods and extending to a lesser degree northward into the West Side and Riverside Communities.
- South of the CBD in the Buffalo River Community and extending eastward through the industrial areas of the East Side Community.

The blighted areas of the city which have been defined as totally deficient (a rating which combines *structural* and *environmental* deficiencies) are presented in tabular form in Table 3. These areas have been delineated by communities, presenting the residential acreage, housing units, and population involved. This information assisted in the determination of the future use of these areas. Within residential areas, the degree of blight often affected the proposed residential acreage and densities. The bulk of the totally deficient housing is located in the Masten, Ellicott, and Buffalo River Communities. It is readily apparent that the Masten Community contains almost one-half of the totally deficient housing which affects almost 25,000 persons. Approximately 10 percent of the city's population live in totally deficient housing, and another 10 percent live in housing containing major structural and environmental deficiencies.

Residential Land Acreage and Population • Figure 2 graphically illustrates the percentage distribution of residential acres and population by one-half-mile rings which have their center at Niagara Square. The residential land acreage increases very sharply through Ring 04, declines in the industrially oriented Rings 05 and 06, and then increases to a peak in Rings 08 and 09. Following this same general pattern, the total population of Buffalo is distributed with peaks in Rings 04 and 08. From the graph, it is apparent that population densities are relatively higher within the central portion of the city. The area contained in Rings 01 through 06 (within 3 miles of Niagara Square) contains 39.2 percent of the total residential land and 52.5 percent of the population, while the remaining rings contain 60.8 percent of the residential land and only 47.5 percent of the population.

Housing Unit Densities and Residential Land Utilization • Similar to the population density characteristics of large cities, the net housing unit density in Buffalo is high in and near the CBD and then declines at a decreasing rate toward the fringe of the city. Figure 3 indicates the housing unit densities by ring and sector. The solid line represents the average density through each of the 12 rings. The density of each ring-sector (dots) has also been plotted upon its respective ring to illustrate the density range within each ring. As the chart indicates, the widest range of individual ring-sector densities, 25 to 114, falls in Ring 02. Those individual ring-sectors on the fringe of the city generally contain the lowest and most consistent densities.

Residential land utilization rates vary inversely with the size of cities; that is, as the population of



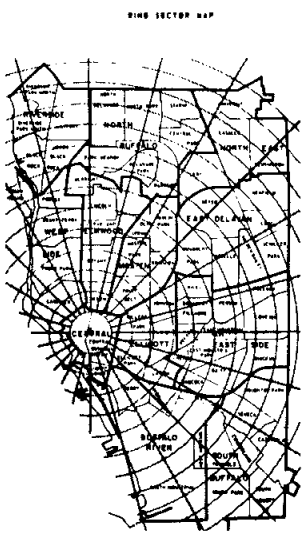
STRUCTURAL CONDITIONS MAP

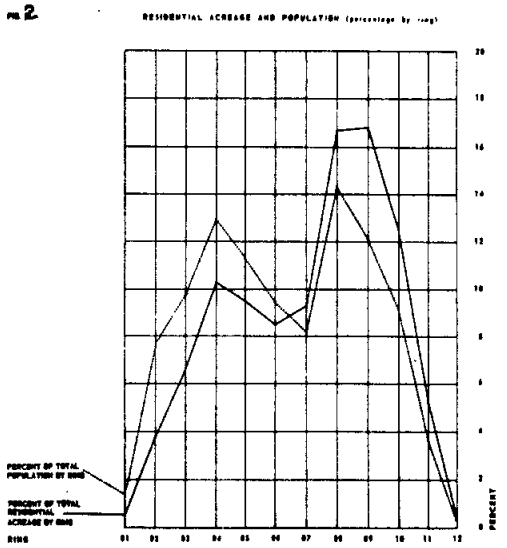
FIG. 1

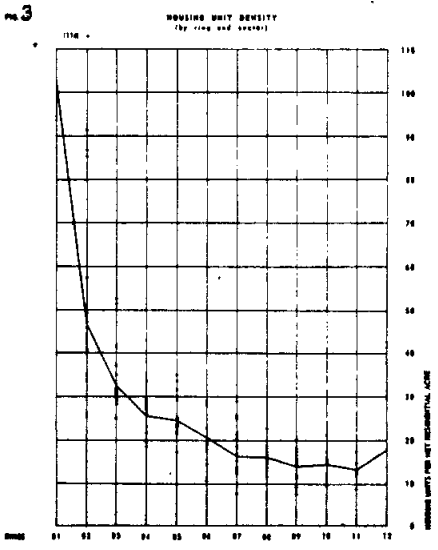
TABLE 3–TOTALLY DEFICIENT AREAS

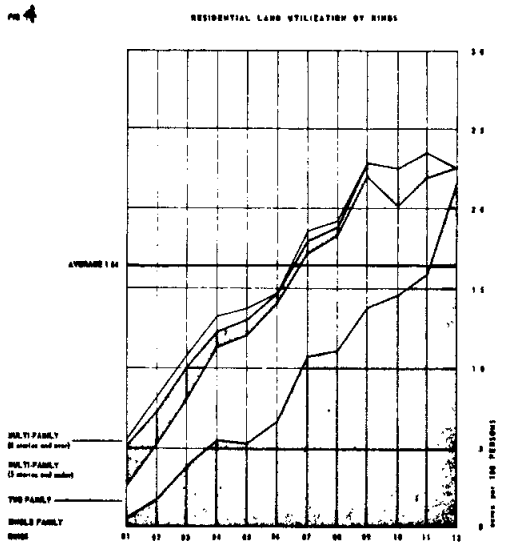
COMMUNITY	Residential Acreage	Percent	Housing Units	Percent	Population	Percent
Central	30.4	5.2	1,707	10.1	4,893	9.3
West Side	11.5	2.0	476	2.8	1,442	2.7
Elmwood	–	–	–	–	–	–
Masten	192.4	32.8	8,124	47.9	24,508	46.6
Ellicott	121.0	20.6	2,393	14.1	7,625	14.5
Buffalo River	144.5	24.6	2,636	15.6	9,187	17.5
South Buffalo	9.8	1.7	204	1.2	548	1.0
East Side	76.9	13.1	1,404	8.3	4,396	8.4
East Delavan	–	–	–	–	–	–
North East	–	–	–	–	–	–
North Buffalo	–	–	–	–	–	–
Riverside	–	–	–	–	–	–
Totals	586.5	100.0	16,944	100.0	52,599	100.0

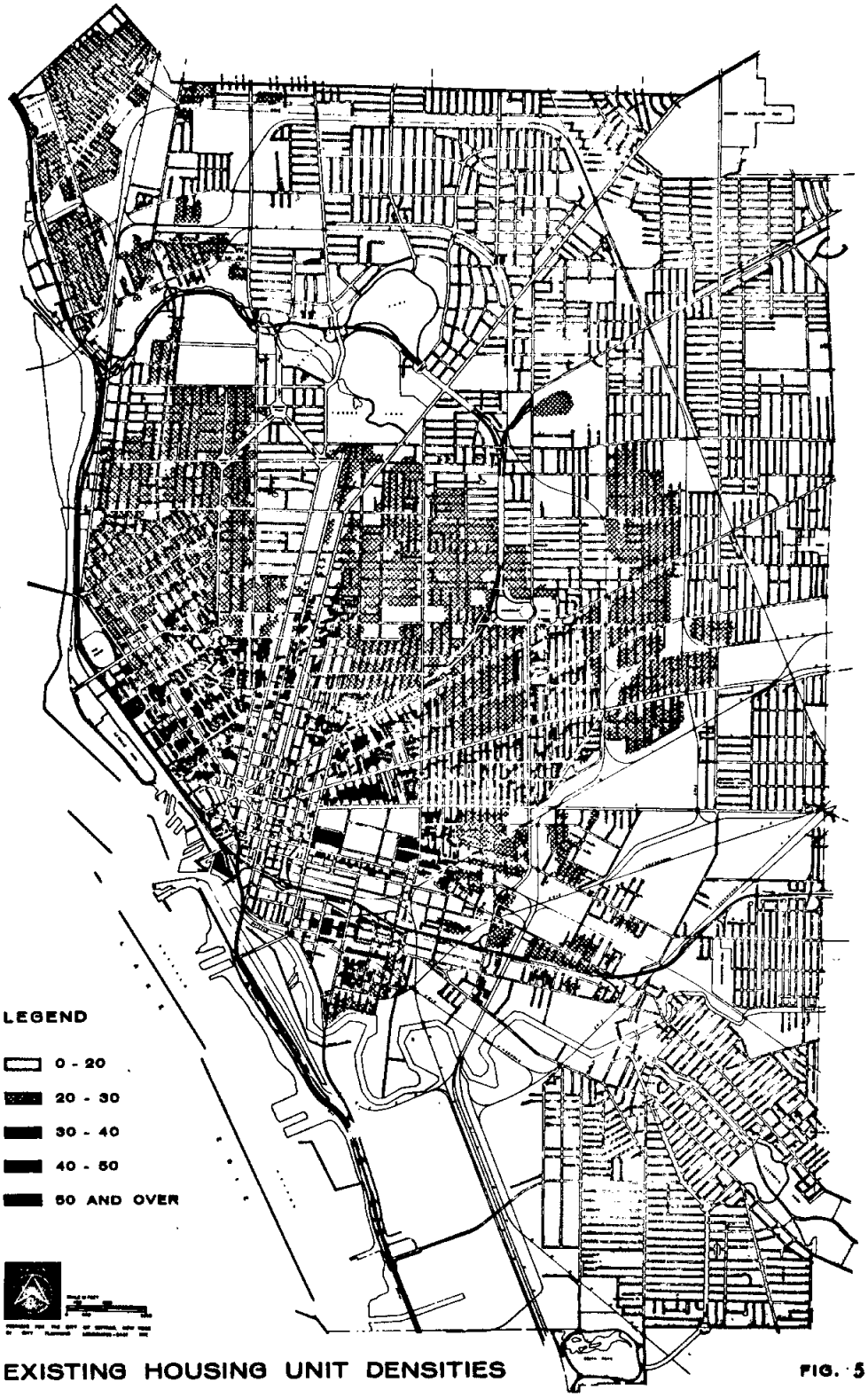
Source: City Planning Associates - East, Inc.











EXISTING HOUSING UNIT DENSITIES

FIG. 5

the city increases, the residential acreage per 100 persons decreases. Compared with cities of similar size, Buffalo with an average of 1.64 residential acres per 100 persons is slightly below average, indicating a more intensive use of residential land in Buffalo. Figure 4 details Buffalo's residential land utilization by ring. Similar to the percentage distribution of residential land, illustrated in Figure 2, the residential land utilization chart indicated more intense utilization in Rings 01 through 06 and less intense utilization through the remainder of the rings.

Existing Residential Density Patterns • The "Existing Housing Unit Density Map," Figure 5, presents the generalized residential land use by density classes. The existing densities were determined on a ring-sector basis and then grouped into five classes. Greater accuracy was achieved by determining the density of the basic unit, the block, in areas of predominant multiple family use.

Densities generally follow a concentric pattern with their peak in the central core and decrease as distance from the core increases. The high density pattern (50 housing units per acre and above) in the central core extends outward to the northeast along the Elmwood Avenue, Delaware Avenue and Main Street radial arterials. The high density pattern also extends into the Ellicott Community, including the Talbert and Ellicott Malls — public housing developments. The medium density patterns (30 to 50 housing units per acre) surround the high density core and extend slightly into the West Side Community and more extensively into the Broadway-Fillmore area in the East Side Community.

Low medium density areas (20 to 30 housing units per acre) are located in the remainder of the West Side, Riverside, and Masten Communities and follow the belt line railroad system into the east side. Low density (under 20 housing units per acre) covers the balance of the city. The low density pattern extends into the central area at one point, between Elmwood and Delaware Avenues in the Elmwood Community.

In summary, the higher residential densities have developed around the CBD and in proximity to the employment centers along rail lines. Presently, high density has been achieved through the use of multi-story structures. Densities from 20 to 50 housing units per acre usually reflect small multi-family and two family structural types often overcrowded on small lots. Densities of under 20 housing units per acre indicate a predominance of single family structures interspersed with two family structures.

DENSITY STANDARDS • In the development of the Residential Plan, density standards have been established. Generally, land used for residential purposes should not be so intensively developed as to cause overcrowding of buildings or to limit residential amenities and services. Densities should permit or contribute to sunlight, air and usable open space; and should provide space for neighborhood facilities.

Specific criteria involved in determining proposed density patterns are as follows:

- Residential densities should be highest around the central core; in proximity to large shopping, employment and institutional centers and adjacent to major transportation facilities.
- It was assumed that those areas totally deficient will be redeveloped. Therefore, areas containing a high degree of blight were considered for major density revisions, while presently stable areas were subject to little or no change at all.
- The value and marketability of land to be developed or redeveloped was a major factor in determining future density patterns; for example, it is desirable to redevelop land within high intensity areas in accordance with the existent or anticipated level of economic activity.
- Many areas of positive change, both residential and nonresidential, have dictated a need for higher density; this is particularly true of areas in proximity to educational and research facilities.
- Finally, where natural amenities are in evidence (lakefront, riverfront, recreation areas), increased densities were proposed.

DENSITY RANGES - The master plan establishes a set of density ranges which should be applied to redeveloped areas as well as to stable areas. Because housing unit density is closely related to housing structure type, density ranges have been defined in terms of housing types. These are shown in Table 4.

SUMMARY OF RESIDENTIAL PLAN PROPOSALS - The summary tabulations of neighborhood and community planning populations, as developed in "Population, Housing and Urban Growth," City Planning Board, September 1967, are presented in Table 5. A total of 170,261 housing units were projected by 1990 and, as outlined on the following pages, a population of 500,000 was established as the planning population of the City of Buffalo. Figure 8 indicates the proposed density pattern for the city from a neighborhood basis.

TABLE 4–DENSITY RANGES AND DWELLING TYPES

Dwelling Units Per Net Acre	Density Class	Dwelling Types
Under 20	Low	Single family detached.
20-30	Low-Medium	Single family attached (row houses). Two family (high intensity). Multi-family (low intensity); e.g., garden apartments.
30-40	Medium	Multi-family (large structures converted for more intensive use). Multi-family (apartments, 3-story or under, low intensity).
40-50	Medium-High	Multi-family (apartments, 3-story or under). Multi-family (high-rise, very low intensity).
Over 50	High	Multi-family (apartments, more than 3-story). Multi-family (high-rise towers, etc.).

CITY POPULATION

The population of the City of Buffalo will not only depend on the more traditional growth factors for the metropolitan area but also on changing desires or cultural attitudes and the inventory of housing available.

The City of Buffalo should continue to experience a loss both in population and the number of housing units until shortly after 1975. At that time, construction of new housing units should begin to reverse the recent trend and rise over the number of demolitions, even considering expressway demolition. This will be led by a fruition of urban renewal programs. Land devoted for residential purposes is expected to decline by 1990 from approximately 8,727 acres to 8,362 acres. Residential uses in predominantly industrial areas would be eliminated.

Replacement housing will emphasize apartment, row or town houses, (both rental and owner occupied units), which will be able to provide structures of less ground coverage with greater open space. Some elimination of marginal commercial uses is foreseen while areas of concentrated commercial uses will require greater lot depth than now generally provided through the city's zoning ordinance.

An increase in housing units does not necessarily result in increased population. Even if new units are fully occupied, an internal shift in population could lower occupancy in other areas of the city, especially from the gray areas.

However, changing factors may alter elements presently existing in the individual's decision-making process in selecting a location for his residence. Such factors may include the following points:

1. The decrease of blight in the city
2. The aging of structures in the immediate suburbs
3. The growing cost in time spent commuting and in money for the provision of utilities and services in developing areas
4. A lessening of movement due to racial concern
5. Changing cultural or social attitudes toward suburbia and subdivision urban growth
6. The improvement of open spaces in the city and of the reputation of its school system
7. The concern of higher levels of government over urban sprawl and consequent programs to encourage more concentrated development
8. Growing conveniences offered to a greater degree in the more concentrated areas
9. A lessening of the distinctions of smaller units of government and popular thoughts of escaping from one to another
10. An increasing desire for an urban environment for permanent residence and more distant open areas for recreation, instead of a suburban compromise.

The 1990 population forecast for the city is thus based on concrete and abstract considerations. Concrete elements concern the availability of more desirable housing units in the city while abstract elements involve a modification of individual and social attitudes on city life and suburban life.

If it was to be presumed that the past twenty-five year trend is to continue, the City forecast would indicate a continued loss in population, an increase in blight, and general deterioration by 1990. It is felt that this prediction would be wrong. While no great reversal of the suburban-subdivision growth is foreseen by 1990, urban sprawl will continually become of greater concern and some modification may be expected before Buffalo and Rochester meet in the vicinity of Batavia.

Figure 6 presents the anticipated number of housing units to be demolished and constructed from the present to 1990.

This estimate indicates that a net increase of 5,320 new housing units would come into being just prior to 1990 and 8,070 just after that date, as various projects are completed.

The vacancy rate of housing units was 4.7% in 1960 and 4.6% in 1966 despite a 52,000 loss in population between those years. Using a five per cent vacancy rate for the estimated units, and assuming 3.0 residents per unit, (the 1960 and 1966 unit sizes were 3.07 and 3.06), rounded population figures of 496,500 and 504,500 are obtained for 1990. In all calculations, figures were rounded to the nearest hundred.

A significant point is that by 1990 approximately 17% of the city's total of 173,000 housing units will have been built since 1967. In addition, approximately 29% of the total units will have undergone varying degrees of rehabilitation. All residential structures in the city will have been blanketed by a program of code and ordinance enforcement.

The planning population for each of the city's communities and neighborhoods is presented. The rounded planning population for Buffalo is set at 500,000. Programs of demolition and construction will continue after 1990 but it is assumed a balance between loss and gain will be struck. At the same time more open space will be provided by reducing the ground coverage of the units provided.

CONCLUSIONS

1. Buffalo will continue to decline in population until the mid-1970's. A modest increase in population should be in evidence by 1980. A population figure of 500,000 should be established for planning purposes.

2. The area of the City of Buffalo is very small in comparison to other major cities. Due to their larger areas in which to expand, other central cities will continue to pass Buffalo in population even though they do not approach Buffalo's population density per square mile.

3. Metropolitan Buffalo, outside the city boundaries, will continue to grow in population.

4. Future legislation and social values may begin to affect the urban sprawl type of development of the post World War II period.

5. The form of transportation facilities provided will affect the type of development which is to take place.

6. The functioning of the metropolitan area as a single economic and social unit will grow in significance. Local government may be altered to reflect this situation.

TABLE 5 - NEIGHBORHOOD AND COMMUNITY PLANNING POPULATIONS

COMMUNITY / Neighborhood	Residential Acreage	Prop. Res. Acreage	Capacity Population	1960 Census	1966 Census	Planning Population
RIVERSIDE	537.9	552	42,821	33,208	31,525	30,000
Riverside Park N.	138.2	147	8,040	7,492	7,138	7,100
Riverside Park S.	136.2	148	8,915	8,106	7,916	8,000
Military	106.5	107	9,230	6,512	6,063	6,100
Black Rock 2.8/HU	88.6	90	12,684	5,826	5,283	5,200
Upper Black Rock	68.4	60	3,952	5,272	5,125	3,600
NORTH BUFFALO	1,216.6	1,175	47,655	46,844	43,934	45,000
North Delaware	164.8	142	6,780	7,617	6,778	6,700
North Park	296.8	285	13,827	14,323	13,302	13,000
Starin	193.0	192	6,215	5,857	5,713	6,000
Central Park	203.6	203	8,918	6,693	6,378	7,000
Park Meadow	188.0	183	5,993	6,125	4,864	5,500
Delaware Park	-	-	-	-	-	-
Parkside	170.4	170	(5,922)	6,229	6,899	6,800
NORTH EAST	913.6	905	46,944	41,821	40,208	40,000
University	126.7	135	10,337	6,924	7,682	7,700
LaSalle	267.3	256	11,098	11,647	10,666	10,500
Kensington	340.8	340	14,592	13,256	12,984	12,300
Leroy	178.8	174	10,917	9,994	8,876	9,500
WEST SIDE	745.7	660	74,703	61,900	54,870	55,000
Forest	113.0	76	5,926	7,704	7,832	6,000
Grant-Ferry	233.0	217	19,940	16,714	14,855	15,500
Front Park	244.0	232	25,497	21,398	18,723	18,500
Lakeview	155.1	135	23,340	16,051	13,460	15,000
Squaw Island	-	-	-	33	-	-
ELMWOOD	586.2	562	38,066	35,927	33,177	35,000
Albright	16.4	-	(1,004)	4,968	4,746	5,000
Cleveland	176.9	167	11,931	8,942	8,370	9,000
Bryant	167.6	160	11,843	9,247	8,711	9,300
Allen	57.3	55	6,310	5,998	4,754	5,200
Lincoln	168.0	164	6,978	6,772	6,596	6,500
MASTEN	712.5	647	61,263	54,102	49,563	50,000
Cold Spring	45.6	60	7,186	4,498	3,412	6,000
Hamlin Park	224.0	220	16,427	14,560	14,575	14,600
Masten Park	167.0	160	17,534	13,866	12,042	12,400
Kingsley	126.8	110	10,897	7,962	7,889	8,000
Fruit Belt	149.1	97	9,219	13,216	11,645	9,000
EAST DELAVAN	1,301.5	1,276	78,892	72,754	66,893	70,000
Meyer	226.7	235	14,303	12,699	11,270	12,300
Kenfield	288.5	288	14,864	14,080	12,212	13,500
Lang	143.9	132	6,303	6,917	6,558	6,300
Humboldt Park	190.5	180	13,246	11,112	11,297	12,000
Moselle	165.7	168	12,900	12,537	10,850	11,000
Walden-Bailey	151.6	138	10,630	9,075	8,760	8,700
Schiller Park	134.6	135	6,646	6,334	5,946	6,200
CENTRAL	82.9	92	19,822	14,876	8,941	15,000
Waterfront	69.8	80	15,759	10,511	6,385	10,500
C.B.D.	12.8	12	4,063	4,063	2,356	4,500
Auditorium	.3	-	-	302	200	-
ELLICOTT	401.7	405	89,054	41,762	33,931	45,000
Willert Park	102.3	90	25,150	13,028	8,823	11,000
Johnson	109.5	105	14,488	8,146	6,988	10,000
Emslie	121.4	100	17,765	12,384	10,014	9,000
Ellicott Park	44.5	110	31,641	6,037	6,234	15,000
Larkin	24.0	-	-	2,167	1,872	-
EAST SIDE	774.2	613	58,779	56,030	48,760	45,000
Mills	114.8	100	11,454	9,496	8,336	9,000
Person	80.8	76	9,324	6,584	5,891	7,000
Pullman	34.4	29	2,677	2,821	1,893	2,000
Lovejoy	226.8	223	10,949	10,993	10,663	10,000
Broadway-Fillmore	114.1	102	14,578	10,367	8,950	10,000
Peckham	47.4	47	6,313	4,863	4,005	4,300
Oneida	24.3	22	2,774	1,932	1,700	2,000
Dingens	20.8	14	710	915	839	700
East Ind. #1	-	-	-	183	0	-
Baitz	25.3	-	-	1,387	1,152	-
Babcock	45.2	-	-	3,764	3,179	-
East Ind. #2	35.9	-	-	2,725	2,152	-
BUFFALO RIVER	183.5	90	11,482	14,281	12,666	10,000
Perry	98.6	90	11,482	9,059	7,743	10,000
Hydraulics	50.3	-	-	3,223	3,122	-
Elk	7.6	-	-	533	498	-
West Hopkins	26.2	-	-	1,262	1,263	-
South Industrial	.8	-	-	204	40	-
SOUTH BUFFALO	1,266.5	1,385	74,104	58,230	56,955	60,000
Houghton Park	173.0	270	13,319	8,842	8,567	10,000
Seneca	111.2	110	(5,188)	5,903	5,543	5,500
Triangle	146.9	145	(7,494)	8,226	7,744	7,800
Cumberland	137.7	140	7,193	6,622	6,948	7,000
Cazenovia Park	155.9	170	8,992	8,129	7,813	8,500
South Park	316.7	320	20,136	12,471	12,504	13,200
South Abbott	225.1	230	11,777	8,037	7,866	8,000

Figures in parenthesis indicate a change in assumption from 1964 Master Plan

FIGURE 6

Anticipated Housing
Unit Demolition
and Construction
1969-1990

(Reference numbers
related to neighborhoods)

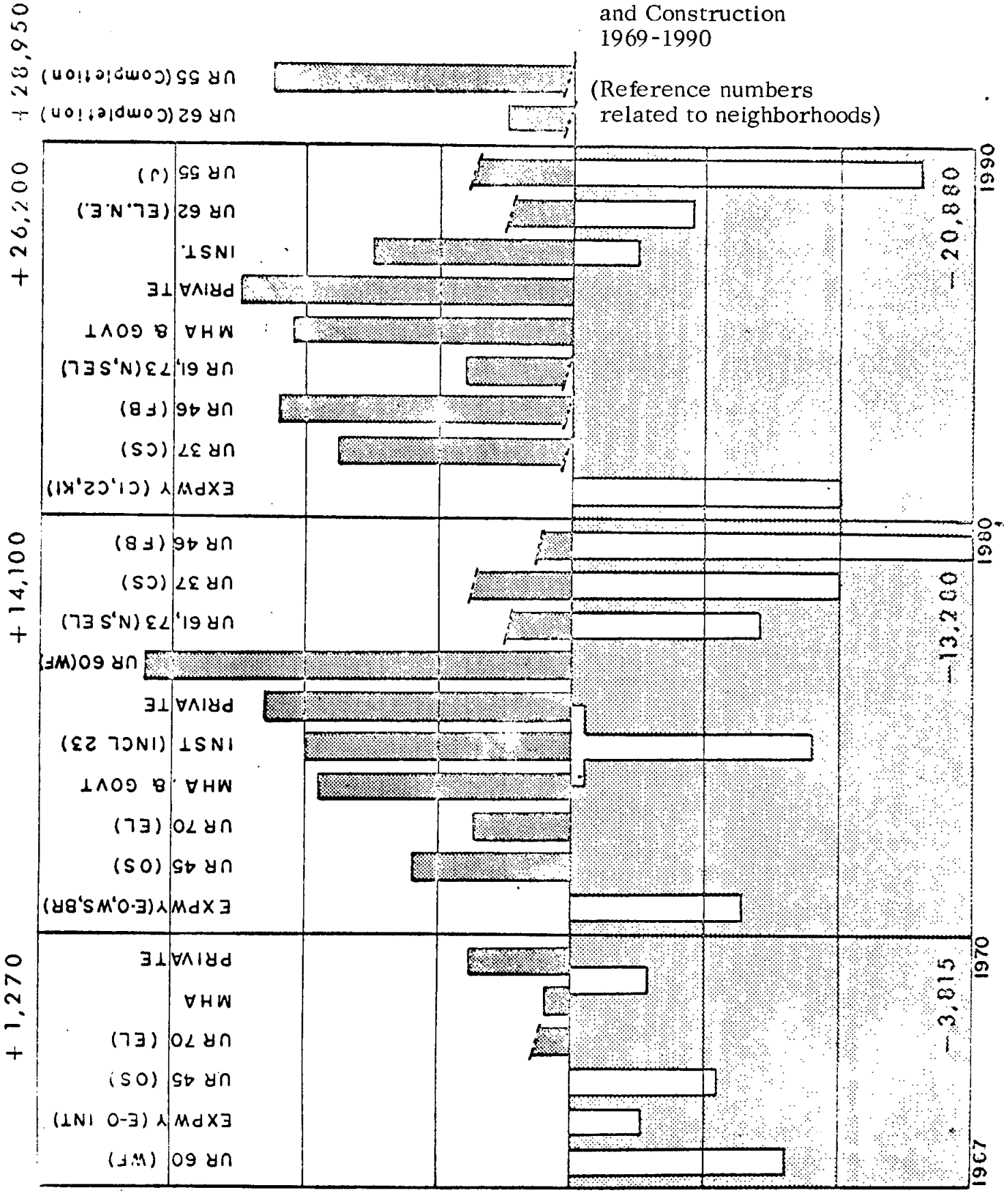


FIGURE 8 - PROPOSED POPULATION DENSITY BY NEIGHBORHOOD AND COMMUNITY

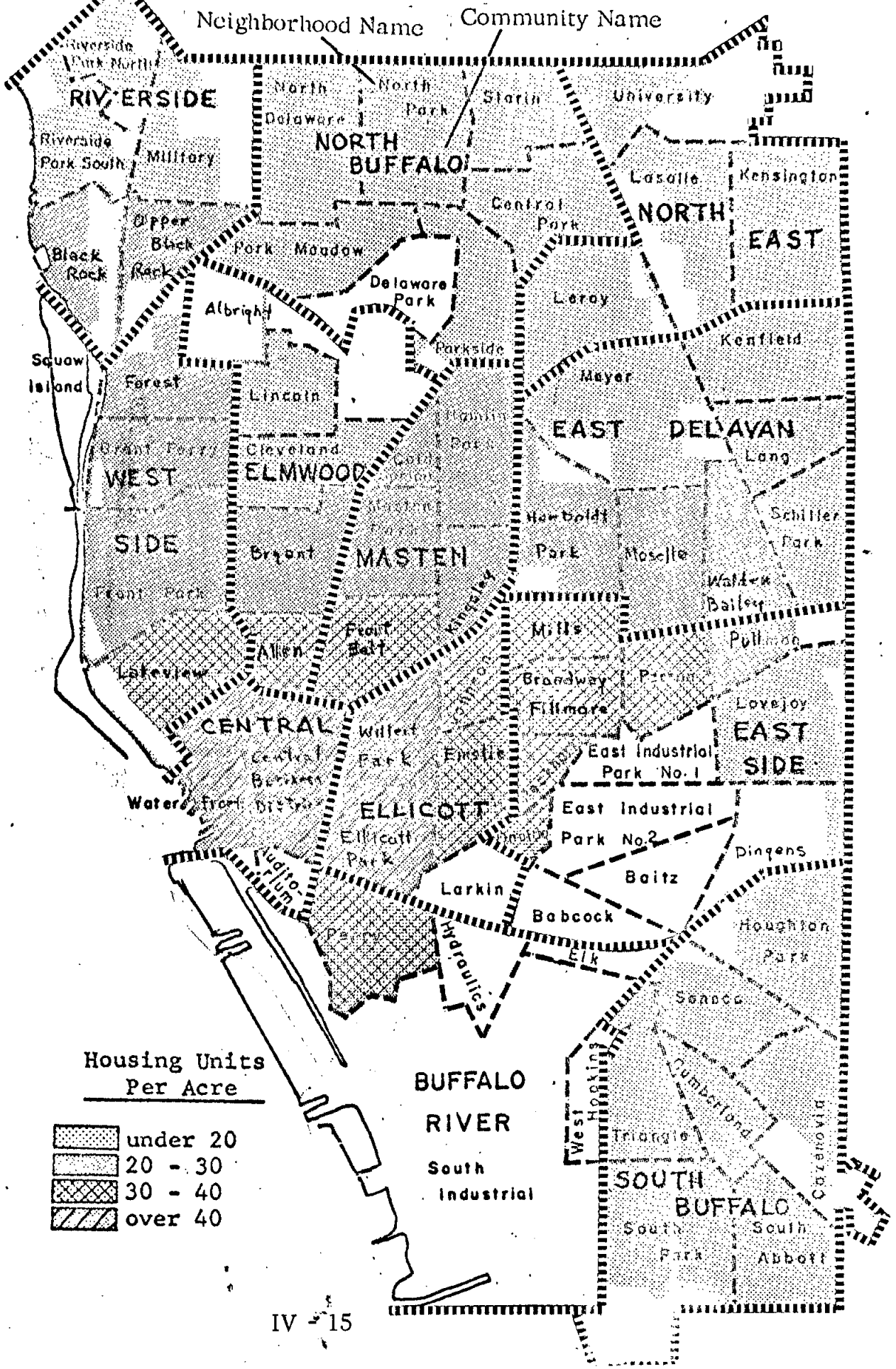
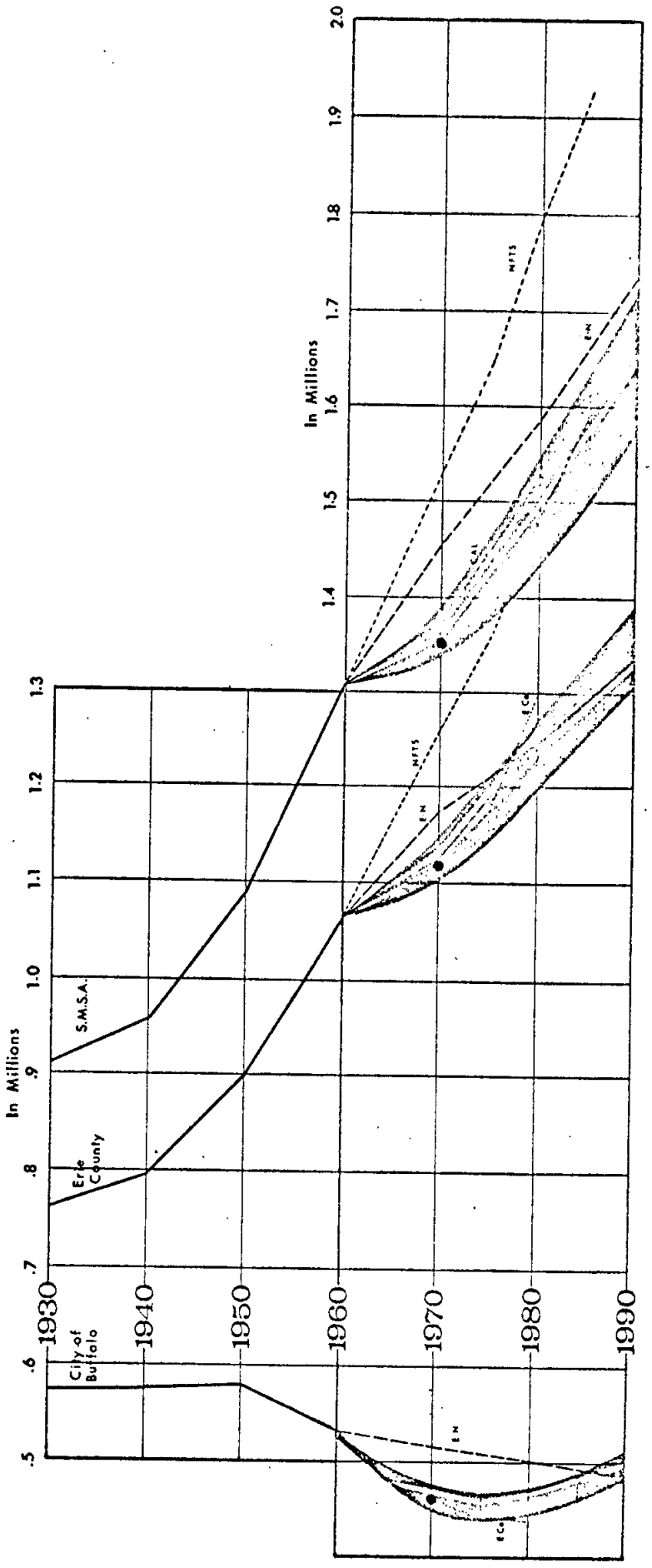


FIGURE 7

Population
City, County and S. M. S. A.
1930 - 1990

Population, Housing and
Urban Growth, City Planning
Board, 1967



Note: Dots on 1970 line indicate figures resulting from the 1970 Census

Figure 8: New Housing Currently Programmed for Development in Buffalo, 1970-75

Location	Sponsoring Organization	Number of Units		Type of Occupancy	Status	Anticipated Completion 1/72	1/74	1/76
1. Ellicott Renewal Project	Urban Properties	360		low/moderate income	under construction	360		
Ellicott Renewal Project	UDC/Niagara Frontier	190			under construction	190		
Ellicott Renewal Project	Not selected	362			in negotiation	80	282	
Total			912					
2. Maryland Street West Urban Renewal Project	Maryner Redevel.Co.,Inc.	242*		low/moderate income	under construction	242		
	Not selected	52		low income	in planning		52	
Total			294					
3. Waterfront Urban Renewal Project	UDC/Niagara Frontier	561*		low/moderate income	under construction	561		
	UDC/Niagara Frontier	215		low/moderate income	awaiting construction	215		
	UDC/Niagara Frontier	1,624		low/moderate/market	in negotiation		1,144	480
Total			2,400					
4. Oak Street Urban Renewal Project	Not selected	1,274		low/moderate income	land in preparation			
	Housing Authority agreement to lease	270		low income elderly		360	524	660
Total			1,544					
5. Richmond Summer	Housing Authority		100	low income elderly	under construction	100		
6. To Be Determined	Housing Authority		300	low income elderly	developer selected	300		
7. Scattered Sites	Housing Authority		200	low income families	developer selected	200		
TOTAL			5,750			2,608	2,002	1,140

*50 units to be leased by the Buffalo Housing Authority as low rent public housing
**168 units to be leased by the Buffalo Housing Authority as low rent and elderly public housing

Figure 9: Additional New Housing Programmed for the 1970-1978 Period

Site	Acreage	GROSS HOUSING TYPE AND DENSITY: S.F. Townhouse 10 Units Per Acre	Maisonette 20 Units Per Acre	Medium Rise 30 Units Per Acre	Total Units	Residential Dislocation (Units)	Areas Planned for New Parks	Date of Start Constr.	Date of Occup.	UNITS BY STAGE: Start Constr. 1/72 Occup. 1/73	1/73 1/74	1/75 1/76	1/77 1/78
A	9.7	4.8 acres 48 units	4.8 acres 96 units		144	10		1/73	1/76		72	72	
B	12.2	6.1 61	6.1 122		183	0		1/72	1/74	91	92		
C	31.3	15.0 150	6.0 120	6.0 180	450	41	4.3	1/72	1/74	190	190		
D	5.6	2.8 28	2.8 56		84	0		1/72	1/73	84			
E	111.6		24.0 480	56.0 2240	2,720	0		1/72	1/78	579	577	577	577
F	46.8	15.0 150			150	0	31.8			266	264	264	
G	no development programmed				0	0							
H	8.2	4.1 41	4.1 82		123	0		1/72	1/73	123			
I	10.9		10.9 218		218	0		1/73	1/76		109	109	
J	6.8	3.4 34	3.4 68		102	0		1/72	1/73	102			
K	54.2	17.3 173	18.4 368	12.5 375	916	32	6.0	1/72	1/78	264	262	262	262
L	23.5	12.0 120	12.0 240		360	0		1/72	1/74	180	180		
M	53.0		30.0 600	10.0 300	900	0	13.0	1/72	1/78	226	225	225	225
N	23.4	10.0 100			100	12	13.4	1/73	1/74		100		
O	54.1	17.0 170	20.2 404	10.8 324	898	0	6.1	1/75	1/78			459	459
P	24.4	12.2 122	12.2 244		366	0		1/72	1/74	183	183		
Q	90.0		30.0 600	60.0 1800	2400	0		1/72	1/78	585	585	585	585
R	7.8	3.9 39	3.9 78		117	60		1/73	1/76		80	37	
S	6.4	6.4 64			64	36		1/72	1/73	64			
T	2.3		2.3 64		64	4		1/72	1/74	36	28		
U	1.5		1.5 35		35	4		1/72	1/74	14	21		
V	6.8		6.8 131		131	4		1/72	1/74	39	92		
TOTAL	590.5				10,525	192	74.6						

On April 22, 1971, the City Planning Board certified the proposals of the Buffalo Community Renewal Program Extension. Brief excerpts of the C. R. P. are presented here. For full details of the report refer to the "Buffalo Community Renewal Program Extension," Nathaniel Keith and Marcon, O'Leary and Associates, Inc., dated February 1971.

- One initial obstacle to prospective expanded renewal efforts is the acute shortage of relocation housing in sound condition and the inadequate rate of new housing construction in the city. Built-up land can not be used for new housing without producing further displacement. Rehabilitation efforts also result in considerable family displacement.

  A critical housing situation now exists in the central City. The combination of a growing black population, abandonment of some dilapidated housing units, and increasing deterioration of many other units has caused a severe shortage of sound housing. The only significant housing stock economically available to the vast majority of the central City population is that in white ownership on the fringe of traditionally black neighborhoods. Here, once stable ethnic areas are beginning to experience rapid turnover as long-term residents move out of the city and leave their neighborhoods for the expanding black population.

  The 1960 Housing Census data indicated that 21.8 percent of all housing units in the City were substandard. In the major segment of the inner city which is now incorporated in the Model City area, the 1960 data showed 36.9 percent of housing units as substandard and more than 30 percent of all households with annual incomes under $3,000.

  The original Buffalo Community Renewal Program, completed in 1965, estimated that 28,542 dwelling units or 17 percent of the total supply then required clearance because of condition and that 42 percent required what was then termed as conservation, meaning conservation and rehabilitation. In 1969, the study of the Buffalo-Amherst Corridor, sponsored by the New York State Office of Planning Coordination in connection with the major campus development of the State University of New York at Buffalo, estimated that 34.8 percent of the existing housing in the Buffalo sector of the corridor was substandard. That sector included a large portion of the inner city.

  Statistics compiled in connection with the City's systematic housing code compliance program estimate that over 30,000 housing units or 18 percent of the total current housing supply are substandard or deficient. That percentage varied widely by neighborhood conditions, ranging up to 47 percent in some inner city districts.

The Buffalo-Amherst Corridor study in 1969, sponsored by the New York State Office of Planning Coordination, projected a need for about 70,000 housing units in the corridor by 1985, of which 42,000 would directly or indirectly be generated by the SUNYAB program and the balance primarily by normal expansion, principally in the suburbs. Of the 42,000 units, the study estimated that close to one-half would be developed within the city segment of the Corridor (which extends northward from the Buffalo waterfront). On balance, most of these units in the City would be for replacement of existing substandard units.

The study further projects that there would be a need for close to 14,000 publicly-assisted units (low and moderate income) of which close to 9,000 would be within the City.

It is in Buffalo's interest to stimulate new housing construction within the city to serve the housing needs of many central city residents as well as satisfy current demand for new housing by Buffalo residents living elsewhere in the city.

- At the present time 6,100 new housing units have been programmed for construction during the 1970-1975 period. The majority of these will be constructed on land made available through the urban renewal program for low and moderate-income families and elderly persons. Development and construction will involve the Buffalo Municipal Housing Authority, the New York State Urban Development Corporation, the Niagara Frontier Housing Development Corporation and several private developers. A summary of these activities and a timetable for completion is included in Figure 8.

  It is recommended that these current efforts be expanded by the construction of an additional 10,525 new units in twenty-one locations throughout the City. These units are programmed over an eight-year period as summarized in Figure 9. This program is also subject to expansion as later stage development on several proposed new urban renewal projects may yield as many as 5,500 additional units during the latter part of the 1970's.

  Together, existing housing activities described in Figure 8 and planned new construction described in Figure 9 yield 16,625 new housing units with potential expansion to 23,775 total units. This level of new housing production will be unprecedented in recent Buffalo history, and will move the city rapidly toward solution of its current housing problem.

Planning impressive new levels of housing production alone will not accomplish the intricate tasks of land assemblage, financing, land development, construction and project management. This study recommends five immediate actions to be undertaken by various Buffalo agencies and organizations as first steps in initiating the 10,525 unit new housing program. These actions are:

1. Initiate the Hertel Avenue Urban Renewal Area to begin land assemblage for 450 new housing units and a 4.3 acre park in one of Buffalo's outer neighborhoods.

2. Actively encourage and assist interested private developers in initiation of the Walden Park Development, a new town-in-town on one of Buffalo's few remaining large vacant tracts.

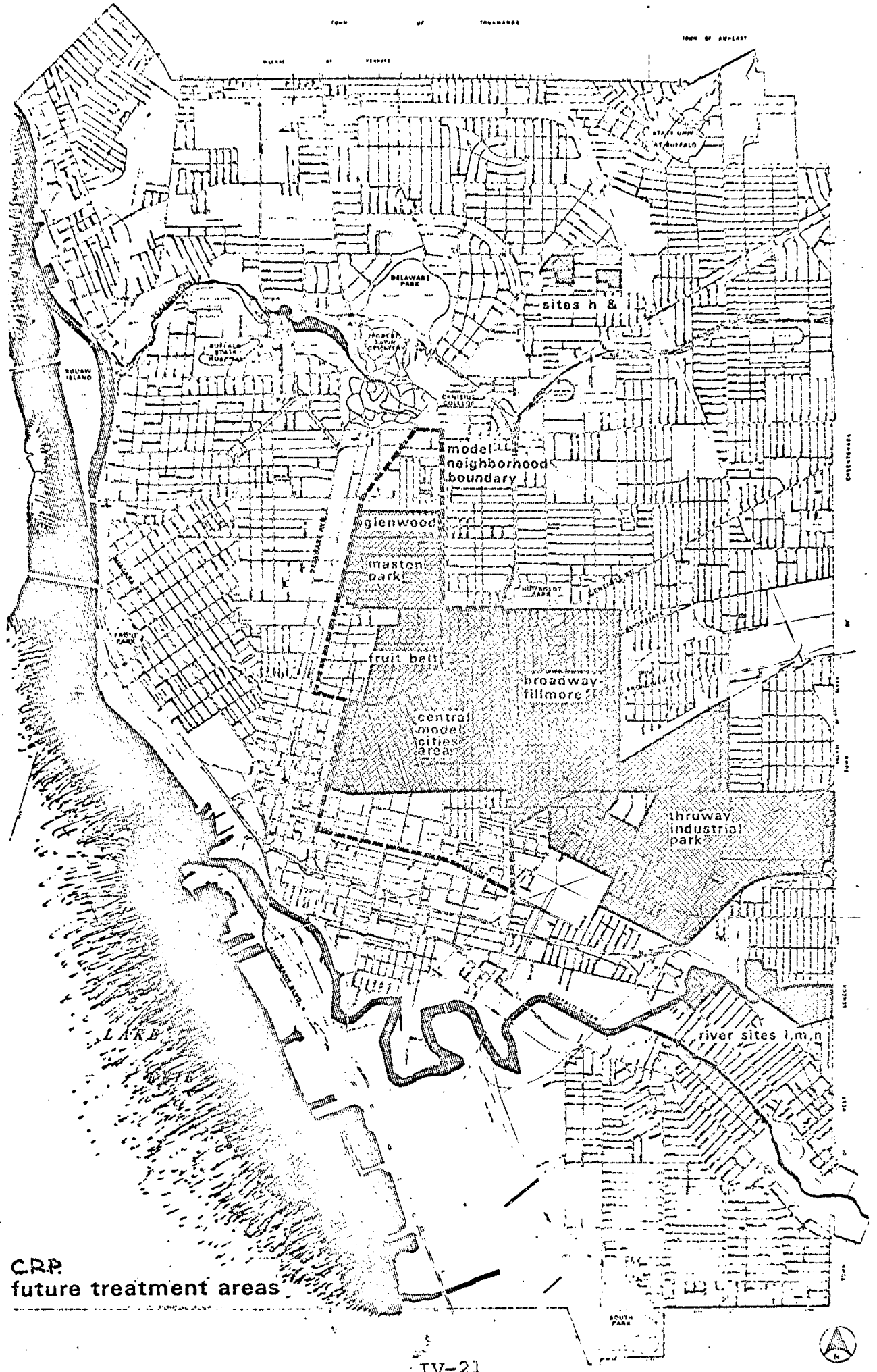
3. Initiate the Cold Spring Urban Development Program as a partnership between the Urban Renewal and Model Cities Programs, using the urban renewal mechanism to make predominantly vacant and under-utilized land available to the Model Cities Housing Corporation for new housing on a staged basis, thereby creating relocation housing during early stages in the same neighborhood for families who will be required to move for later stage new housing construction.

4. Initiate the Model Cities Neighborhood Development Program in the southern Model Cities area to build upon recent progress in the Ellicott project and continue the staged redevelopment of Buffalo's most deteriorated central city area.

The City Planning Board approved the above four items in the C. R. P. report. The Board did not approve the fifth item listed below. Any future proposal to use park land for other uses would have to be reviewed individually and carefully before any action was to be taken.

(5. Pave the way legally and administratively for redistribution of park land throughout the City by investigating new state legislation and establishing a program to allow limited housing development in Grover Cleveland and South Parks.)

CRP
immediate action projects



CRP
future treatment areas

RECREATION AND OPEN SPACE

BUFFALO MASTER PLAN
Chapter Five, Section One

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November 1968

RECREATION AND OPEN SPACE

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CONTENTS PAGE

INTRODUCTION

The City of Buffalo grew from the Village of New Amsterdam which was laid out in 1804 by Joseph Ellicott. The first major impetus for growth occurred with the opening of the Erie Canal. As Buffalo developed, like other nineteenth century American cities, it did not provide parks as a part of public responsibility. Private recreation areas and cemeteries filled the need for recreation and strolling. Public streets also provided open space before the demands of the automobile dominated them.

Andrew Jackson Downing was a landscape architect of the mid-nineteenth century, who felt he had a mission in preaching the need of open areas, stressing an informal landscape approach rather than the formal European approach. Downing, from the Hudson River area, has been associated with the Hudson River school, a romantic movement of landscape painters of the early nineteenth century. The Hudson River school emphasized natural grandeur rather than design or values. In a sense the school represented a rejection of the growing cities and industrialism in favor of nature.

Downing met Calvert Vaux in Europe in 1850 and returned to the United States with Vaux as a partner. They presented a plan to President Fillmore for public grounds in Washington, D.C. Downing drowned in the Hudson River in 1852.

Frederick Law Olmsted recognized parks as a need of American cities and, three years after the Civil War, he prepared a report on the proposed Central Park for New York City. Such an oasis in that city had been a vision of Downing. Olmsted became a partner of Vaux.

In 1868 a citizens' committee in Buffalo requested Olmsted, Vaux and Company, at private expense, to present an outline of a plan for establishing parks in Buffalo. On October 1, 1868, Olmsted and Vaux submitted a report to the committee.

Three sites were suggested: High Street near Potter's Field (Masten Park); the site adjacent to Fort Porter (Front Park); and a site on the bank of Scajaquada Creek west of Forest Lawn Cemetery (Delaware Park). In the last, an artificial lake was to be formed by the creek.

In November 1868 the plan was presented to the Mayor and the Common Council. It was hoped that enabling legislation could be secured from the state legislature to permit the council to acquire land for a public park. This was obtained. In April 1869 the mayor appointed twelve park commissioners to select park land in

keeping with the state legislation.

In 1870, Olmsted and Vaux were again retained to provide necessary plans and designs. The Park (Delaware), The Front, and The Parade were designed. In 1876 a map was designed to exhibit the three new parks and their approaches. It was exhibited in Philadelphia in 1876 and in Paris in 1878. The map featured The Front, The Circle (Symphony), The Avenue (Richmond), Chapin, Lincoln and Bidwell Parkways, The Park (Delaware), Agassiz Circle, Humboldt Parkway, and The Parade (Humboldt Park). Fillmore Avenue was also proposed as a parkway, extending the system to Seneca Street. But industrial, commercial and railroad developments stifled this proposal.

Delaware Park was purchased by the City of Buffalo in 1870. It was bounded by the State Asylum Grounds, Forest Lawn Cemetery, Parkside Avenue, and a private development on the northeast. Only veterans of the Civil War Civil Service list were eligible to work in the parks. The land on the north side of Scajaquada Creek between Elmwood Avenue and Grant Street was acquired in 1900. The south bank between those streets had been given to the city by the state in 1894.

The swampy shoreline of Scajaquada Creek had been an eyesore. The improvement of this body of water was sought immediately. The excavation for a lake was completed in 1871. Nurseries were established to provide shrubbery and a quarry near Agassiz Circle (now filled) provided stone for park construction and roadbeds.

Chapin Parkway was opened in 1872. By 1874 the connections of Bidwell, Chapin, Lincoln and Humboldt Parkways had been completed. Entrances were provided at Colvin Parkway (now Avenue) and Jewett Avenue (now Parkway). Amherst Street was rerouted around the northerly edge of the park. Bridle and bicycle paths were placed in the park by 1896. Boating had become popular in the park.

The zoo originated from donations in 1892 and continued to grow in specimens and facilities. In the late 1920's, a belief that the zoo was too small and needed improvement began to grow. In October 1935 the W.P.A. began a modernization program with city assistance. Lack of funds caused a delay in construction in 1937 but work resumed and was finished in a few years. Crushed stone and hewn rock were taken from the Manhattan Quarry by relief labor.

The man-made park lake had become the source of complaints due to foul odor and seaweed growth in the 1890's. Attempts were made

to clean the lake twice before the lake was thoroughly dredged in preparation for the Pan American Exposition. After the exposition was over, the demolition of the buildings, gateways and other structures of the Pan American Exposition was the responsibility of the Parks Commission. The land was cleared to await new development.

Delaware Park attracted large numbers of visitors even though it originally was distant from the developed areas of the city. Arrival by carriage, horses or walking were the first means of access. Railroad beltline stops were added. Horse-drawn omnibuses, electric trolleys, motor-buses and automobiles were eventually used to reach the park. By the time the last appeared, urban development had engulfed the park.

Front Park had been selected by Olmsted and Vaux due to its commanding view of the lake and river. The site adjoined Fort Porter. A tract of land was purchased in 1870 and in 1882 the U. S. Government permitted the city to use an old military graveyard as part of the park. Further development of the Front required acquisition of land between the canal and the waterfront. In 1882 this land was occupied by several unsightly industrial uses. The city acquired this 20 acre tract in 1890 after several court cases

following its initial condemnation proceeding in 1884. In 1927 the Peace Bridge required changes in the park. Due to increased traffic, the approaches to the Peace Bridge have continually dwindled the acreage devoted to park use. The state thruway also consumed much Front Park acreage.

In 1913 the city acquired title to Centennial (LaSalle) Park, adjacent to Front Park. In 1929 the development of a seaplane dock was urged and this was built in 1931 but received little use. The park was prepared for the centennial celebration of Buffalo in 1932.

As population expanded, Riverside Park was provided to meet a demand in that area of the city. In 1897, old Germania and Union Parks were developed into a major city park. Fifteen additional acres were added in 1912.

Prospect Park had existed in the Village of Black Rock. In 1851 it had been leased by the City of Buffalo. In 1862 it was opened to the public.

The Circle (Symphony Circle) was formed by the acquisition of the Black Rock cemetery in 1870. The original development of the Circle was completed in 1874.

Niagara Square was leased by the city in 1839. In 1851 a resolution was presented to make Niagara Square a public park, but the matter was tabled. In 1873 the Park Commission assumed jurisdiction over the square. The dedication of the McKinley monument took place in 1907.

Humboldt Park (originally the Parade) was plowed, drained and partially opened by 1874. The park served as parade grounds. A number of structures were built and replaced in the park. In 1926 the present casino was constructed.

Masten Park, formerly known as Potter's Field was graded in 1886 and developed by 1889. In 1894 the need for a new high school in the area resulted in a proposal to place it in Masten Park. The Park Commission opposed the idea, but legislation was provided to locate the school in the park. A school was built in 1896, but it was destroyed by fire in 1911. The existing school (which is to be demolished) was built in 1913.

Schiller Park was acquired by the city in 1912. Additional land was acquired ten years later. At the time, Scajaquada Creek drained through the area. The creek was enclosed and low land filled in. The development of the park began in 1928.

Houghton Park was purchased by the city on a site formerly called Mill's Farm. The first structure was built in 1925. It was named after a principal of School 69, which is adjacent to the park.

In 1890 the city purchased a 76 acre site on both banks of Cazenovia Creek. This site was at first cooly received due to the distance from residential areas. Cazenovia Park was enlarged in 1899 by 31 acres. An additional 80 acres was acquired in 1925 for a golf course by which time urban development had engulfed the park.

South Park was acquired by the city in 1887. At the same time the city purchased Stony Point on the lakeshore with the intention of connecting South Park with Stony Point with a parkway but a complex of railroad lines prevented the connection. The Stony Point acreage was later sold by the city. While South Park extended into the City of Lackawanna, it was maintained by the City of Buffalo and in 1935 the entire park was annexed by the city. In 1892, Frederick Law Olmsted had submitted studies for the development of South Park. The construction of a large greenhouse was begun in 1898.

The Country Club of Buffalo built a clubhouse near the northeast

area of the city in 1901. By 1925 residential developments practically surrounded the site. Although the site was outside the city line, the city purchased the old Country Club as the club moved to new quarters further out from developments. This park was also annexed by the city in 1935.

For sixty years the development of parks in Buffalo had been in accord with the original plan detailed in 1876. A great debt is owed by the citizens of Buffalo to the park commissioners, the common councils and the mayors of that period. In general this adherence to the plan provided Buffalo with a sound recreation foundation. While close to completion the plan has never been fully in effect.

Dangers of losing elements of the plan continue to threaten the city. Humboldt Parkway has been lost to an expressway. Portions of existing parks are continually lost for various reasons. It is in the best interests of the city and future generations that a comprehensive park plan be followed with vigor and that individual whims be subdued. It is hoped that those of the future will look upon our activity in this matter as constructive and not destructive.

A century ago the demand for public recreation grew until its provision became a public responsibility. The park system planned

by Olmsted and Vaux answered the demand of that period. Since the requirements of a society change, the original goals of park planning have shifted. In addition to the park system, which is a definite asset, a growing desire exists for small parks and playgrounds scattered throughout the city. The provision of such areas is presently the main objective of the recreation plan. A second objective should be the protection of existing recreation acreage.

FIGURE 1 From an 1888 report on Buffalo parks, by Olmsted.

RECREATION FACILITIES

GENERAL ANALYSIS OF RECREATION FACILITIES

Previous reports prepared by the National Recreation Association in 1946, the Division of Planning in 1962, and the Community Facilities Plan of the Master Plan of 1964 have underscored the deficiency of recreation land within the City of Buffalo.

The 1946 inventory and proposals for recreation areas prepared by the National Recreation Association called for a standard in Buffalo of one acre for each 236 persons. At that time the existing ratio was one acre for each 406 persons, including the land of Bennett Beach located in Evans Township. The N.R.A. normally recommends one acre of recreation land for each 100 persons.

The N.R.A. stated in its report that the general standard must be adjusted in any city to meet local conditions. Since the application of the standard in Buffalo would require over twenty-three percent of the land available in the city to be devoted to recreation uses, the N.R.A. felt that this would be an unjust standard. It also noted that in other cities where the density of population is less than in Buffalo, it is not unusual to find ten percent of the land used for recreation purposes. The proposals of the N.R.A. in 1946 actually were slightly under ten percent of the land

area of the city or 2487 acres.[1]

It was pointed out in the report, page 4, that Buffalo's density of population was unusually high, which is further compounded by the fact that when the residential area alone is considered (with 39% of the land devoted to other uses) the density of population in residential portions of some census tracts exceeds 50,000 persons per square mile. The average for all residential areas in the city was approximately 23,000 persons per square mile. It was also pointed out that the New York State Health Department in February 1944 estimated the city's population to be 587,367 persons. This may well have been the city's peak of population, due largely to World War II activities.

For the city as a whole, the standard of one acre of playground space and one acre of playfield for each 800 persons was proposed. In 1946 the total land devoted to recreation then was 1445 acres.

Table I provides a comparison of the acreage reserved for recreation with five comparative cities and for Buffalo. The figures are based on the 1960 Census since these are the only figures presently available on a uniform basis. The ratio of 0.27 acres of recreation

1
National Recreation Association, PLAN OF RECREATION AREAS AND FACILITIES, BUFFALO, NEW YORK. New York City, March 1946, Page 12.

TABLE I - SUMMARY OF RECREATION ACREAGE FOR BUFFALO AND COMPARATIVE CITIES, 1960

City	1960 Population	Acreage	Acres/100
Milwaukee, Wisconsin *	1,027,191	10,355	1.01
Baltimore, Maryland	922,244	6,000	0.65
Cincinnati, Ohio	494,883	4,913	0.99
Cleveland, Ohio	869,728	4,093	0.47
Detroit, Michigan	1,654,125	5,831	0.35
Buffalo, New York	532,759	1,444	0.27

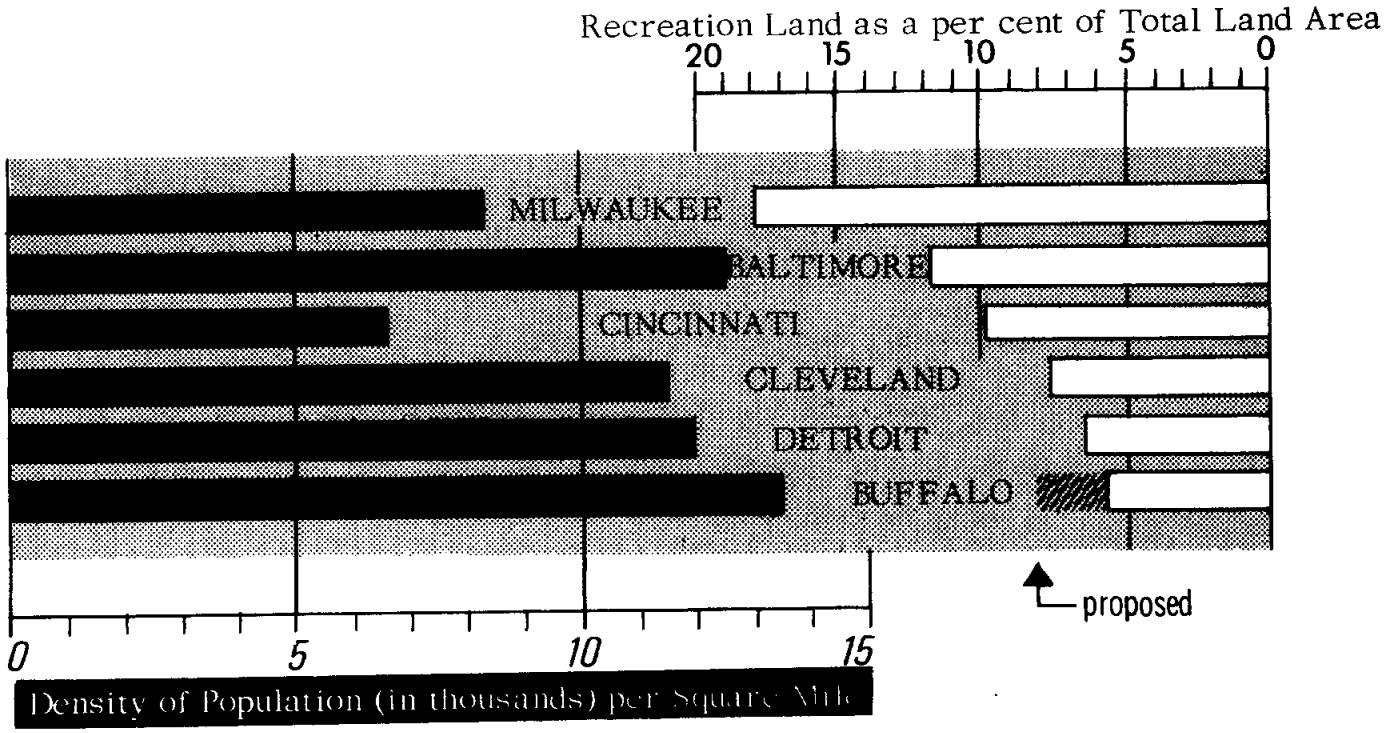
* Milwaukee County Park Commission has jurisdiction of parks within City and Co.
Source: Recreation and Park Yearbook, 1961 - National Recreation Association

TABLE II - RESIDENCES - STRUCTURAL TYPES - IN PERCENT, 1960

	Single-family units detached	Single-family units attached	Two or more units
Milwaukee	39	4	57
Baltimore	13	57	30
Cincinnati	33	4	63
Cleveland	36	7	57
Detroit	53	7	40
Buffalo	24	4	72

Source: U. S. Census, 1960

FIGURE 2 - POPULATION DENSITY COMPARED TO PERCENT OF LAND RESERVED FOR RECREATION, 1960



land per 100 persons for Buffalo is far below the general standard of one acre per 100 persons recommended by the National Recreation Association. Due to the city's intense development, it is unreasonable to expect the city to attain the goal of one acre per 100 persons ratio, as is the case with most densely populated cities. This relative situation is indicated in the graph in Figure 1 on page three. The City of Buffalo cannot be expected to acquire extensive sites within the city. It is recommended that large park reserves should be provided in the more sparsely developed sections of the metropolitan area to meet this need.

The Community Facilities Plan of the 1964 Master Plan recommended that a standard of 0.35 per 100 persons or 3.5 acres per 1000 persons be established. Essentially this proposal recommended one acre per 1000 persons for city-wide parks, one and one-half acres per 1000 persons for community recreation facilities and one acre per 1000 persons for neighborhood facilities.

This revision of the section of the 1964 Master Plan dealing with recreation was prepared for two basic reasons. The recent preparation of population estimates reaching to 1990 for the City of Buffalo[2] have caused a re-evaluation of the population of the city on a neighborhood basis.

[2] Population, Housing and Urban Growth, 1967-1990, Division of Planning, Buffalo, New York, September, 1967.

The new planning population figures for the year 1990 have become the foundation for the new recreation standards. In addition, a more ambitious program of providing recreation facilities is anticipated through the State and the Federal Governments' assistance. This has been recently indicated by increased activity in the provision of such facilities.

The Division of Planning has raised the planning goal, through this report, to 0.45 acres per 100 persons, or 4.5 acres per 1000 persons. Using a planning population figure of five hundred thousand, 2,250 acres of land reserved for recreation purposes would be required. The proposals call for one and one-half acres each per 1000 persons for city-wide, community and neighborhood facilities.

PARK AND RECREATION STANDARDS
(4.5 acres per 1000 persons)

The first step in the establishment of a plan for parks and recreation areas is the establishment of desirable standards. Existing facilities must be judged on the basis of meeting these standards. The facility should be adequate in size for the population served and provide sufficient room for the play area and apparatus required. The age composition of a given area should be closely studied to guide the installation of facilities which will most closely meet the needs of the service area. The facility should be centrally located and easily accessible. The standards which follow,

although based on national standards, are guided to a greater extent by local conditions:

1. City-wide Recreation Facilities
(1.5 acres per 1000 persons)

A. City-wide park requirements:

Accessible from the entire city. Serves all age groups.

Minimum Size: 100 acres.

Uses: Boating, swimming, picnicking, baseball, water sports, hiking and field sports are commonly provided.

Where large concentrations of people are expected, parking areas, comfort stations and shelters should be provided.

Total city-wide requirements, including specialized facilities, are one and a half acres per 1000 persons.

B. Specialized facilities:

Specialized centers of activity provided, of a city-wide scope. Scenic features, strip park, zoo, botanical gardens or recreational activity other than above.

No specific standards.

2. Community Recreation Facilities
(1.5 acres per 1000 persons)

A. Community park requirements:

Located in an area accessible to the residents of a community within a one-mile radius, this facility would serve all age groups. In general it would serve 20,000 - 50,000 persons based on approximately one-half acre per thousand persons.

Uses: Passive recreation areas, swimming pool, band shell, comfort and shelter stations, landscaping and picnic areas could be provided.

B. Community playfield:

Located in an accessible area and serving from three to five neighborhoods, this facility would serve primarily young persons over fifteen years of age within a one-mile radius. The required acreage for the entire city averages one and a-half acres per one thousand persons but the individual community requirement would vary with the population density of the community. This adjustment is made for the obviously greater need in densely populated areas. These community playfields would range from 0.8 acres to 1.3 acres

per thousand, stressing flexibility according to specific needs. Facilities could include separate fields for men and women, croquet and archery areas, a swimming pool, parking areas, and a playground. Recreation buildings should be considered, especially in the areas indicated on page 40 as community recreation centers.

3. Neighborhood Recreation Facilities
(1.5 acres per 1000 persons)

A. Neighborhood playground requirements:

Centered in neighborhood, preferably adjacent to a school or agency to provide year-round recreation supervision. When possible, the facility should be located near an elementary school. Active areas emphasizing ages five through 15. Could include passive areas for all age groups. The service radius may extend to one-half mile. At least one area should be provided for a neighborhood of 5000 persons with a minimum site of at least two acres. Facilities may include outdoor play apparatus areas, softball diamond, multiple-use paved area, quiet area, shelter house, comfort station, and some parking space. While

characteristics of individual neighborhoods vary, the general distribution should be one acre per 1000 persons for playgrounds.

B. Neighborhood park requirements:

Centered in a neighborhood, possibly adjacent to a playground, the neighborhood park would provide open area, passive recreation, benches and attractive landscaping. The general standard would be one-half acre per 1000 persons. There is no specific requirement for this type of park area. It may also exist in the form of a pedestrian walkway connecting various facilities.

4. Special Recreation Standards

A. Tot lot requirements:

Tot lots are generally located in medium or high-density residential areas to serve pre-school children. They normally are not operated as a function of the Parks Department. The Division of Planning would recommend that neighborhood groups, developers, and the Buffalo Municipal Housing Authority, and other agencies, provide such facilities when they are deemed to be desirable. The suggested size ranges from 2,500 to 8,000 square

feet and the facilities may include such things as an open shelter, benches, sand box, spray pool, swings, slides, climbing apparatus, and fencing to serve as screening and to control the wandering of small children. See Table IV, page 38.

B. School open space and recreation requirements:

While it is desirable to locate neighborhood recreation facilities near or adjacent to schools, this is not always possible. When the nearest recreation area is over 500 feet from the school, it is recommended that twenty-five percent of the total lot area of the school be devoted to recreation and open space. Parking facilities should not encroach upon the area reserved for this purpose. The intent for providing this area would be for both open space and an area to be used for minor recreational activities.

C. Temporary facilities requirements:

When comprehensive planning would indicate that a site would be improperly located, a vacant city-owned parcel of land might be temporarily used for recreational purposes if the need exists. However, the use of that site would be considered temporary, and it should not be dedicated for such purposes. Assistance in maintenance and supervision must come from the neighborhood.

Special Category of Recreation and Open Space

Tifft Farm Reservation

The Tifft Farm area, comprising approximately 250 acres, was added to the recreation and open space plan on February 3, 1972 as a special category of open space. It is to be reserved primarily for the preservation of wildlife in a natural setting. Previously the area was designated as industrial reserve. As an open space reservation, the area will be a contrast to an otherwise industrially oriented area and provide relief from surrounding heavy industrial developments. See page 46A.

THE RECREATION PLAN

Whenever possible it would be desirable to locate a recreation facility adjacent to a school. This would enable the concentration of children to make greater use of the facility. Care should be taken in locating a specific site to make certain it is in the best location possible, that it is on a site not likely to hinder various expansion programs, and not in the path of a foreseeable expressway.

Appendix A, PLANNING POPULATIONS, presents the planning population of the city's various neighborhoods and communities, and indicates each unit's existing facilities, its planning requirements in acres, and the additional acreage required to meet the standard of one and one-half acres per 1000 persons.

Table III, presents the Neighborhood Recreation Plan. Phase I of this plan would raise the existing level to a goal of one acre per one thousand persons and suggests a general location for such additions. The neighborhoods which lack over two-thirds of this requirement are indicated by two asterisks (* *) and should be considered high on a priority basis. Neighborhoods

lacking between one and two-thirds of this requirement are indicated by a single asterisk (*). These should receive attention next on a priority basis.

Phase II is a longer range proposal which should be undertaken after all neighborhoods have been brought up to the goals of Phase I. This phase would elevate all neighborhoods to a goal of one and a half acres per one thousand persons. The suggested locations indicated would be subject to review at the time of implementation. At the present time these locations would seem to be the best according to present conditions.

TABLE III -- NEIGHBORHOOD RECREATION PLAN

PHASE I GOAL:	One acre per thousand persons
PHASE II GOAL:	One and a half acres per thousand persons (See Appendix B for inventory of existing facilities.)

Table III continues on the following pages indicating requirements of neighborhoods, listed under community groupings.

A single asterisk preceding the neighborhood indicates that neighborhood has two-thirds or less acreage of the Phase I requirement.

A double asterisk plus underlining indicates the neighborhood has only one-third or less of the Phase I goal.

TABLE III - CONTINUED

RIVERSIDE COMMUNITY - Neighborhood Recreation Plan

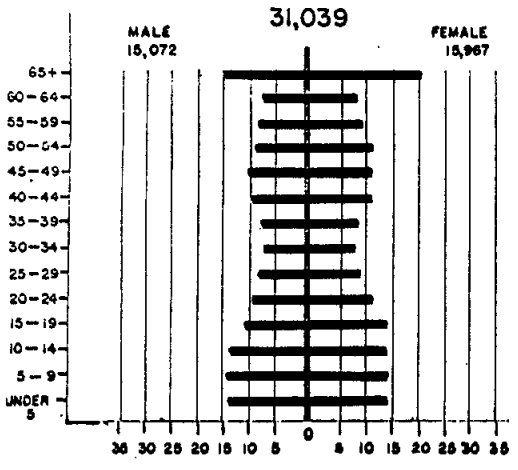
PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
Riverside Park N. (7.2)	--	---
Riverside Park S. (7.6)	0.4	P.S. 60
Military (6.3)	--	---
*Black Rock (2.7)	2.5	P.S. 51
*Upper Black Rock (2.5)	1.1	P.S. 42

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Riverside Park N.	3.5	P.S. 65
Riverside Park S.	4.0	Rano St.
Military	3.1	Barrett Plg.
Black Rock	2.6	P.S. 51
Upper Black Rock	1.8	P.S. 42

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



FACILITIES BY NEIGHBORHOODS

RIVERSIDE PARK NORTH

1. J. H. Williams Playground
2. Public School No. 65
3. All Saints School
4. Shaffer Village M. H. A.

RIVERSIDE PARK SOUTH

5. Riverside Park
6. Public School No. 60
7. Riverside Branch Library
8. Fire Station Engine No. 26
9. Riverside High School
10. Ontario Small Boat Ramp

BLACK ROCK

11. St. John Baptist School
12. Post Office
13. Public School No. 51
14. Jubilee Recreation Center & Library
15. Fire Station No. 15
16. St. Francis Xavier School

UPPER BLACK ROCK

17. St. Elizabeth School
18. Fire Station Engine No. 12
19. Public School No. 42
20. Austin Street P. A. L.

MILITARY

21. West Hertel Middle School
22. Cardinal Dougherty High School
23. St. Florian School
24. Police Station No. 13
25. Jasper Parish Pl. M. H. A.
26. Public School No. 79
27. Barrett Playground
28. Ramsdell Playground
29. LaSalle Courts M. H. A.

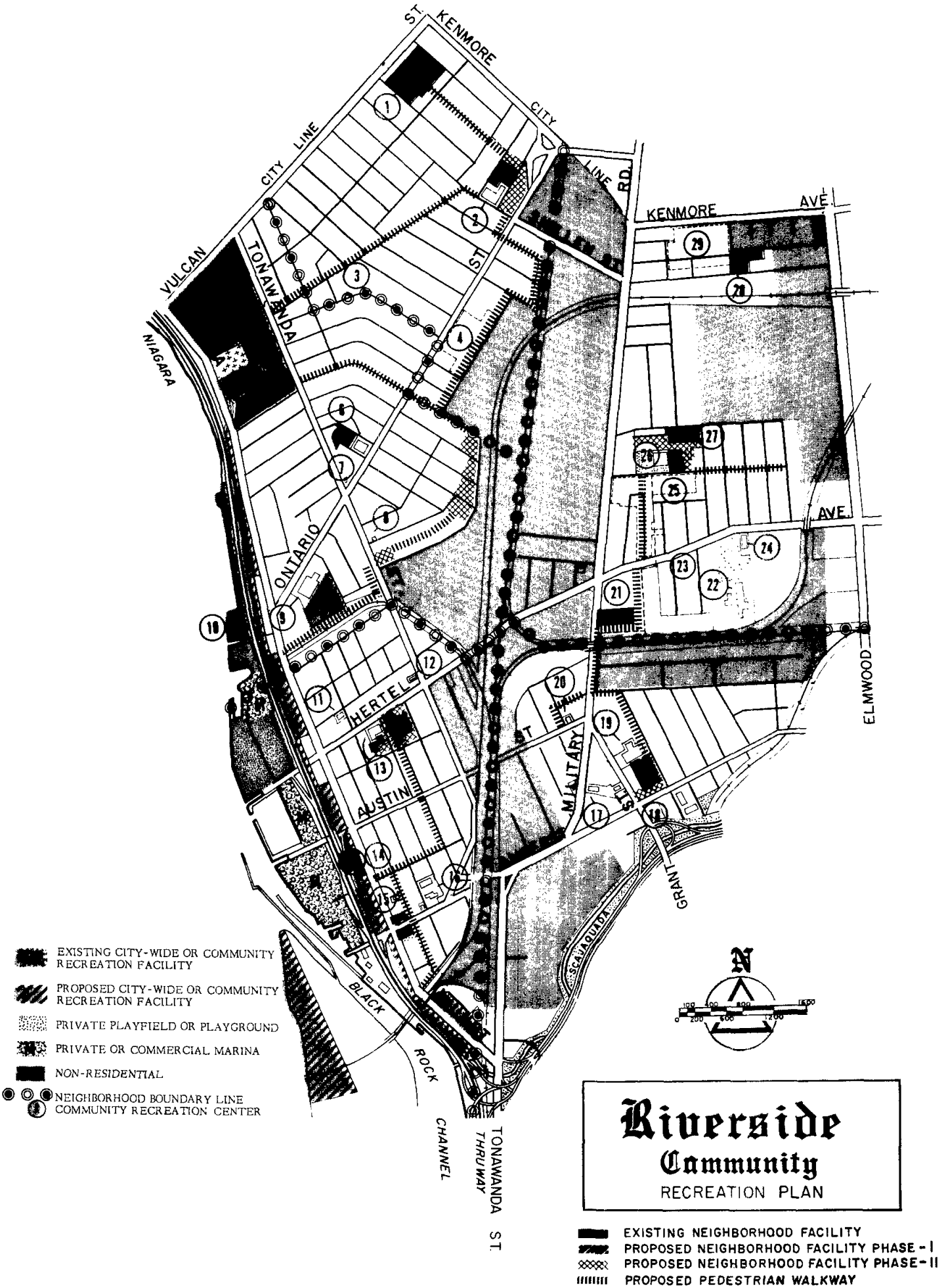

ST. KENMORE
CITY LINE
CITY LINE RD.
KENMORE AVE.
VULCAN
TONAWANDA
NIAGARA
ONTARIO
HERTEL
AUSTIN
MILITARY
ELMWOOD
GRANT
AVE.
ST.
BLACK ROCK CHANNEL
TONAWANDA ST.
THRUWAY
SCAJAQUADA
EXISTING CITY-WIDE OR COMMUNITY RECREATION FACILITY
PROPOSED CITY-WIDE OR COMMUNITY RECREATION FACILITY
PRIVATE PLAYFIELD OR PLAYGROUND
PRIVATE OR COMMERCIAL MARINA
NON-RESIDENTIAL
NEIGHBORHOOD BOUNDARY LINE
COMMUNITY RECREATION CENTER
N
Riverside
Community
RECREATION PLAN
EXISTING NEIGHBORHOOD FACILITY
PROPOSED NEIGHBORHOOD FACILITY PHASE - I
PROPOSED NEIGHBORHOOD FACILITY PHASE - II
PROPOSED PEDESTRIAN WALKWAY

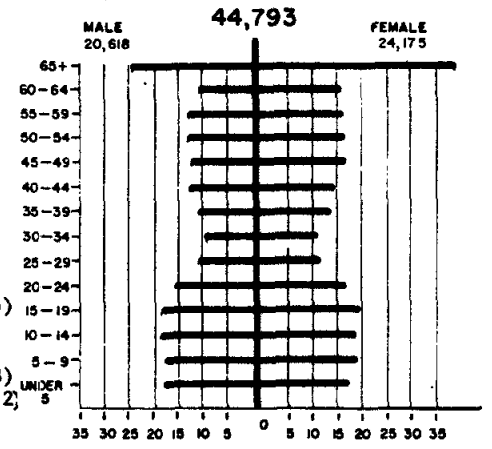
TABLE III - CONTINUED

NORTH BUFFALO - Neighborhood Recreation Plan

PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
*North Delaware (2.4)	4.3	Lafayette Plg.
**North Park (0.7)	12.3	Taunton-Colvin (6.0) N.Park-Taunton (6.3)
Starin (5.1)	0.9	Taunton-Starin
Central Park (7.0)	--	--
Park Meadow (6.7)	--	--
Parkside (3.5)	3.3	P.S. 54 (0.5) Oakwood-Main (2.8)

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
North Delaware	3.4	Delaware-Linden
North Park	6.5	Taunton-Cunard (4.5) N.Park-Hertel (2.0)
Starin	3.0	Taunton-Starin (0.8) Taunton-Standish(2.2)
Central Park	3.5	Wallace-Revere
Park Meadow	1.6	P.S. 64
Parkside	3.4	Oakwood-Main Exp.

NORTH DELAWARE

1. Y. M. C. A.
2. Public School No. 81
3. Public School No. 21
4. North Park Library
5. Holy Spirit School

NORTH PARK

6. Public School No. 88
7. Hebrew School & Academy
8. St. Margaret's School
9. Fire Station Engine No. 38 & Police Station No. 17

STARIN

10. Public School No. 66
11. Public School No. 86
12. St. Rose Lima School

CENTRAL PARK

13. Holy Angels Academy
14. Shoshone Playground
15. Public School No. 22
16. Bennett High School & All High Stadium
17. Fire Station No. 34
18. Fairfield Library

PARKSIDE

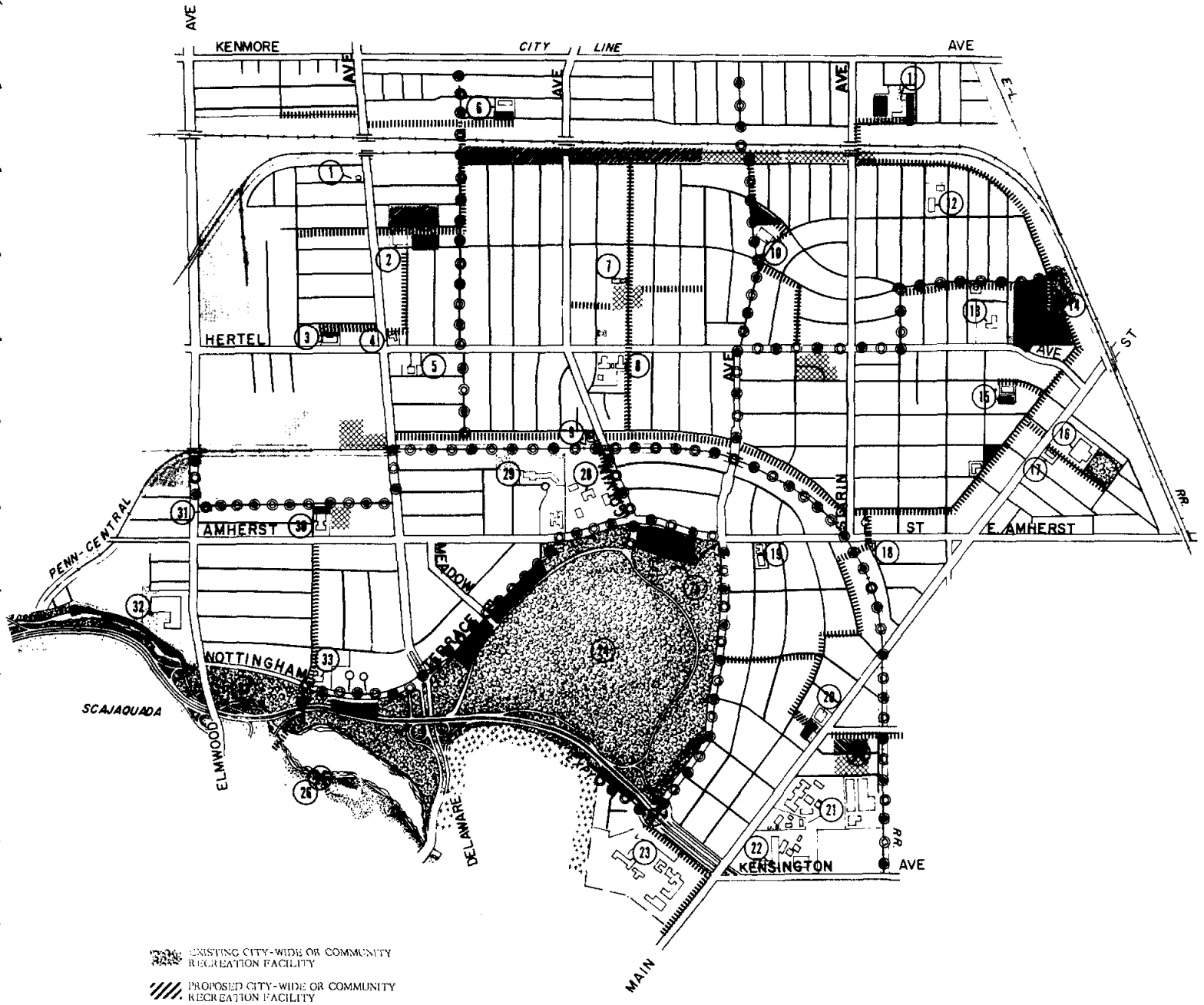
19. St. Marks School
20. Public School No. 54
21. St. Mary's School for the Deaf & U. B. Disease Research
22. Buffalo Sister Charity Hospital
23. Medaille College

DELAWARE PARK

24. Delaware Park
25. Buffalo Zoo
26. Delaware Park Casino

PARK MEADOW

27. Historical Society Building
28. Nichols School
29. Elmwood-Franklin School
30. Public School No. 64
31. Fire Station No. 6
32. McKinley Vocational High School
33. Convent Sacred Heart



North Buffalo
Community
RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY
PROPOSED NEIGHBORHOOD FACILITY PHASE - I
PROPOSED NEIGHBORHOOD FACILITY PHASE - II
PROPOSED PEDESTRIAN WALKWAY

TABLE III - CONTINUED

NORTH EAST COMMUNITY - Neighborhood Recreation Plan

PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
*University (4.7)	3.0	Tyler-Bruce
**LaSalle (1.1)	9.4	Cordova @ Quarry (5.2) E. Amherst @ Quarry(4.2)
Kensington (14.1)	--	--
Leroy (13.9)	--	--

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
University	3.9	Tyler-Bruce (2.1) P.S. 83 (1.8)
LaSalle	5.3	Parkridge-Kensington(4.0) Cordova-Quarry Exp.(1.3)
Kensington	4.4	Stockbridge-Bailey (3.2) P.S. 80 (1.2)
Leroy	0.6	Dewey Plg. Exp.

UNIVERSITY

1. Public School No. 83
2. Cantalician Center for Children
3. St. Joseph's School
4. State University of New York at Buffalo
5. Grover Cleveland Park
6. Veteran's Hospital

KENSINGTON

7. Public School No. 80
8. Public School No. 85
9. Roosevelt Playground
10. St. James School
11. Public School No. 68

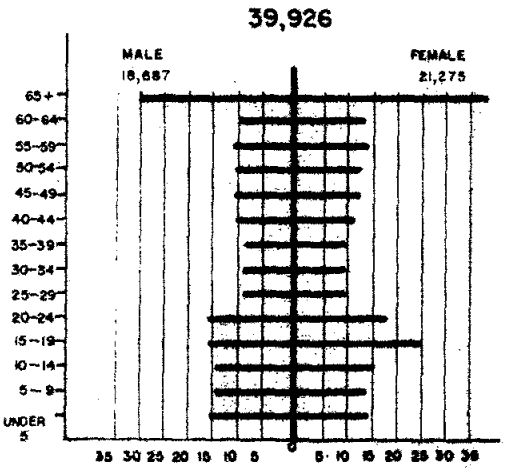
LA SALLE

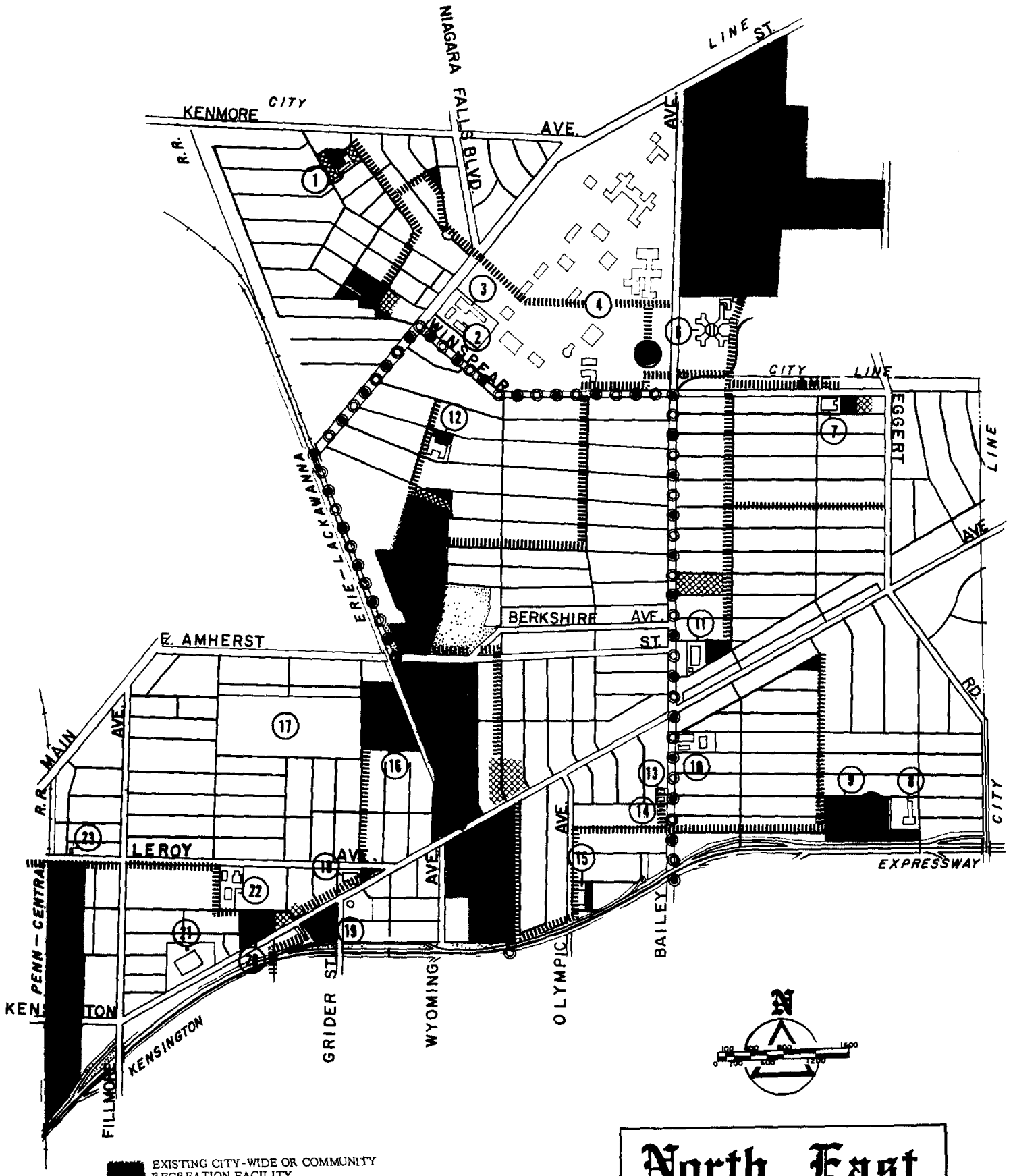
12. Public School No. 63
13. Post Office
14. Fire Station & Police Station
15. Public School No. 78

LEROY

16. Manhattan Playground
17. Central Park Plaza
18. Public School No. 61
19. Kensington Pool
20. Dewey Playground
21. Burgard Vocational High School
22. Blessed Trinity School
23. Fire Station Engine No. 24

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census





EXISTING CITY-WIDE OR COMMUNITY RECREATION FACILITY

PROPOSED CITY-WIDE OR COMMUNITY RECREATION FACILITY

PRIVATE PLAYFIELD OR PLAYGROUND

PRIVATE OR COMMERCIAL MARINA

NON-RESIDENTIAL

NEIGHBORHOOD BOUNDARY LINE
COMMUNITY RECREATION CENTER

North East
Community
RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY

PROPOSED NEIGHBORHOOD FACILITY PHASE - I

PROPOSED NEIGHBORHOOD FACILITY PHASE - II

PROPOSED PEDESTRIAN WALKWAY

TABLE III - CONTINUED

WEST SIDE COMMUNITY - Neighborhood Recreation Plan

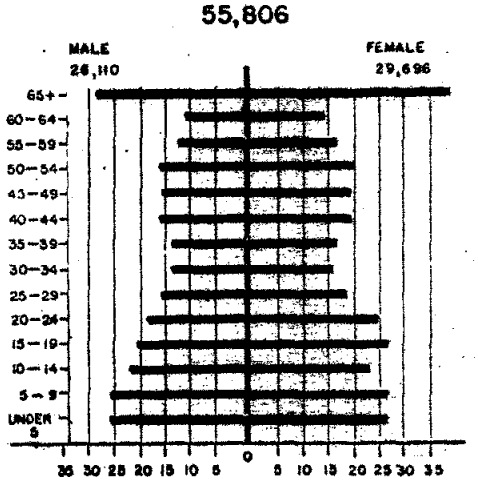
PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
*Forest (2.6)	3.4	P.S. 52
**Grant-Ferry (1.6)	13.9	P.S. 45 (5.1) West-Potomac (3.3) Sch. St. Park (5.5)
Front Park (13.8)	4.7	Sch. St. Park (4.7)
Lakeview (11.8)	3.3	Hudson Strip Park

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Forest	3.0	West-Potomac
Grant-Ferry	7.8	P.S. 45 (3.8) Dewitt-Auburn (4.0)
Front Park	9.3	Sch. St. Park (2.8) Vermont-Fargo (2.5) Mass. Rec. Center (4.0)
Lakeview	7.5	P.S. 1 (1.3) Tauriello Exp. (2.6) West-Virginia (3.6)

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



SQUAW ISLAND

1. West Side Incinerator
2. Buffalo Sewage Treatment Plant
3. Broderick Park
4. West Side Rowing Club

FOREST

5. Bradley Street Pool
6. Coronation School
7. Fire Station No. 19
8. Public School No. 52

GRANT-FERRY

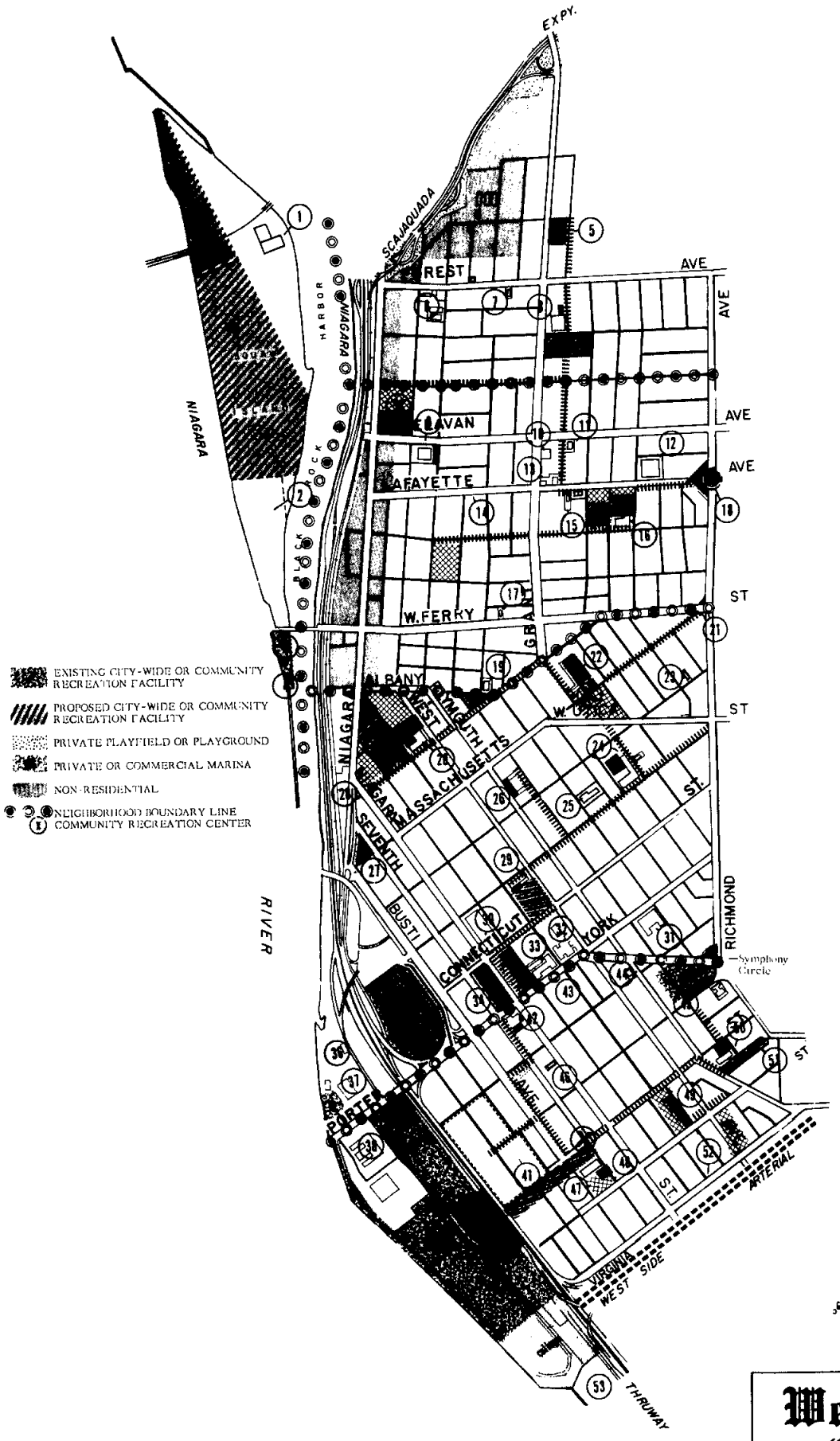
9. Public School No. 19
10. New Library
11. Police Station No. 5
12. Lafayette High School
13. Annunciation School
14. Lafayette Hospital
15. Annunciation High School
16. Public School No. 45
17. Post Office "G"
18. Colonial Circle
19. Nativity School

FRONT PARK

20. Public School No. 18
21. Ferry Circle
22. Massachusetts Recreation Center
23. Fire Station No. 4
24. Public School No. 38
25. Our Lady of Loretto School
26. Public School No. 77
27. Massachusetts-Seventh-Busti Playground
28. Massachusetts Pumping Station
29. Public School No. 49
30. 174th Regiment Armory
31. Grover Cleveland High School
32. Holy Angels School
33. D'Youville College
34. Prospect Park & Library
35. Front Park & Ice Rink
36. New York National Guard Garage
37. United States Naval Reserve Training Center

LAKEVIEW

38. Ward Pumping Station
39. Centenial Swimming Pools
40. LaSalle Park
41. Lakeview Hous,M. H. A.
42. Public School No. 3
43. D'Youville College
44. Fire Station No. 29
45. Kleinhans Music Hall
46. Police Station No. 10
47. Public School No. 1
48. Holy Cross School
49. Tauriello Park
50. Public School No. 36
51. Days Park
52. Boys Club
53. Small Boat Launching Ramp (to be removed)



West Side Community
RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY
PROPOSED NEIGHBORHOOD FACILITY PHASE - I
PROPOSED NEIGHBORHOOD FACILITY PHASE - II
PROPOSED PEDESTRIAN WALKWAY

TABLE III - CONTINUED

ELMWOOD COMMUNITY - Neighborhood Recreation Plan

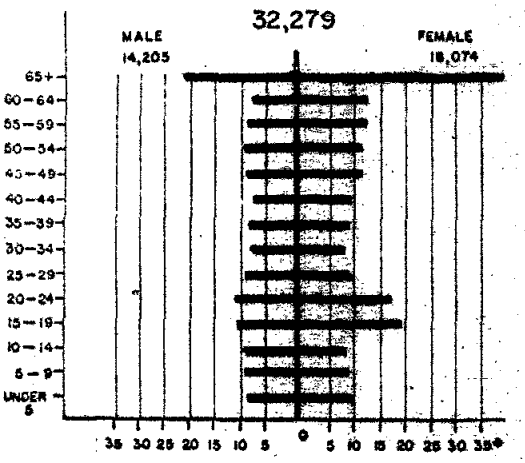
PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
Albright (6.4)	--	--
Lincoln (8.4)	--	--
**Cleveland (2.1)	7.2	Breckenridge (3.5) Harvard-Balcom (3.7)
**Bryant (1.1)	8.2	Hodge-Ashland (5.0) Richmond-Summer (3.2)
**Allen (1.6)	3.6	Virginia Strip Park

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Albright	--	--
Lincoln	1.4	P.S. 56
Cleveland	4.5	P.S. 17 (1.5) Highland (3.0)
Bryant	4.7	P.S. 16 (1.6) Linwood-Summer (3.1)
Allen	2.6	Allen-College

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



ALBRIGHT

1. State University College at Buffalo
2. Buffalo State Hospital
3. Albright Knox Art Gallery
4. Delaware Park

LINCOLN

5. Calasanctius Preparatory School
6. Buffalo Seminary
7. Public School No. 56

CLEVELAND

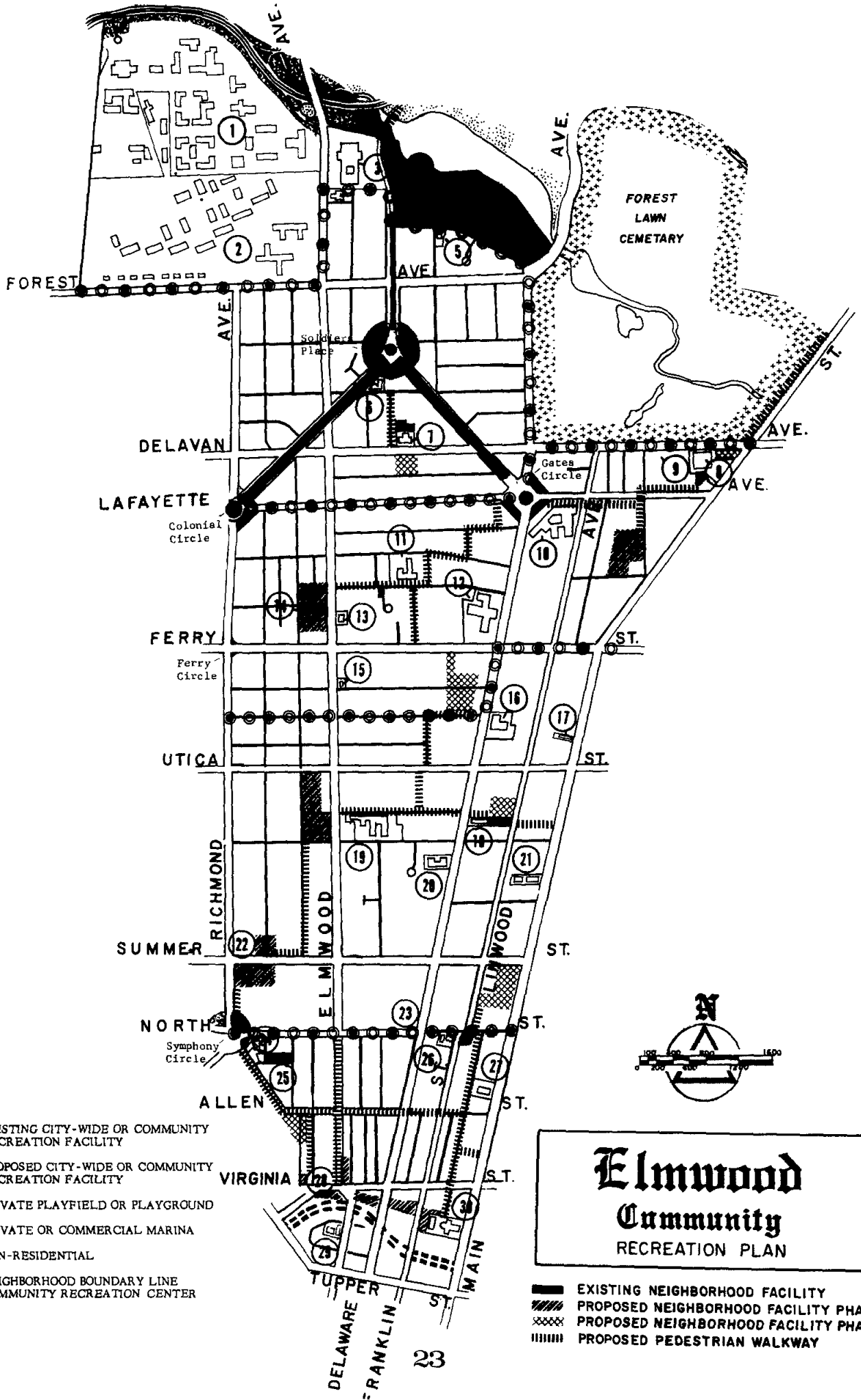
8. Public School No. 17
9. New York National Guard
10. Millard Fillmore Hospital
11. Nardin Academy School
12. Canisius High School
13. Public School No. 30
14. Bidwell Branch Post Office
15. Elmwood Branch Library

BRYANT

16. St. Joseph's School
17. Fire Station Engine No. 16
18. Public School No. 16
19. Childrens Hospital
20. Bishop McMann School
21. Bishop Fallon School
22. Senior Citizens M. H. A.
23. G. A. R. Club

ALLEN

24. Rosa Coplon Home
25. Arlington Park
26. St. Mary's Seminary
27. Salvation Army
28. Public School No. 46
29. Immaculate Conception School



Elmwood Community

RECREATION PLAN

TABLE III - CONTINUED

MASTEN COMMUNITY - Neighborhood Recreation Plan

PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
**Cold Spring (0.2)	5.8	Cold Spring Center (3.8) Northland-Masten (2.0)
**Hamlin Park (1.4)	13.2	Ferry-Dupont (4.6) Trinidad (3.5) Hamlin Walkway (2.9) Northland-Hagen (2.2)
*Masten Park (6.9)	5.5	P.S. 8 (3.5) P.S. 48 (2.0)
**Kingsley (1.5)	6.5	Kingsley Plg. Add.(0.8) P.S. 39 (2.2) Norway-Dodge (3.5)
*Fruit Belt (4.0)	5.0	Elm-North (2.5) Lemon-Carlton (2.5)

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Cold Spring	3.0	Cold Spring Center (3.0)
Hamlin Park	7.3	Cold Spring Center (7.3)
Masten Park	6.2	Utica-Michigan (2.0) Coe-Ellicott (4.2)
Kingsley	4.0	Kingsley-Willow (4.0)
Fruit Belt	4.5	Lemon-Carlton (1.5) Virginia-Michigan (3.0)

-HAMLIN PARK -

1. Jefferson Branch Library
2. Masten Boys Club
3. Humboldt Y.M.C.A.
4. Lutheran Church Home
5. P.S. No. 53
6. P.S. No. 74
7. P.S. No. 93
8. Canisius College
9. St. Vincent School
10. St. Francis School

-MASTEN PARK-

11. Branch Post Office
12. Masten P.A.L.
13. Woodlawn Jr. H.S.
14. P.S. No. 48
15. P.S. No. 8
16. St. Nicholas School
17. Bishop Duffy Center & School
18. Bishop O'Hern H.S.
19. Masten Plg.
20. Skating Land
21. Richard Carnival Center
22. War Memorial Stadium

-FRUIT BELT-

23. Fire Station Eng. No. 4
24. Buffalo General Hospital
25. Roswell Park Inst.
26. Eye & Ear Hospital
27. Post Office
28. P.S. No. 37
29. St. Boniface School
30. Our Lady of Lourdes School
31. Girls Voc. H.S.
32. N.Y.S. Armory
33. U.S. Vet's Bldg.
34. Neighborhood House

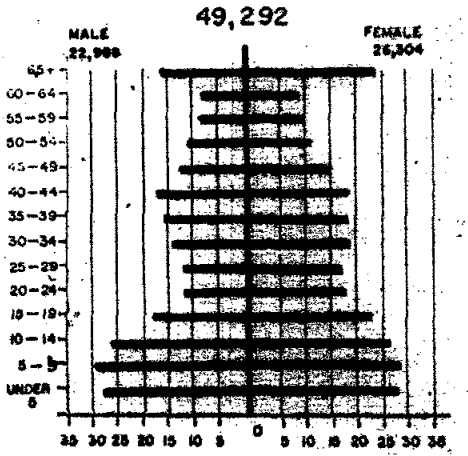
-KINGSLEY-

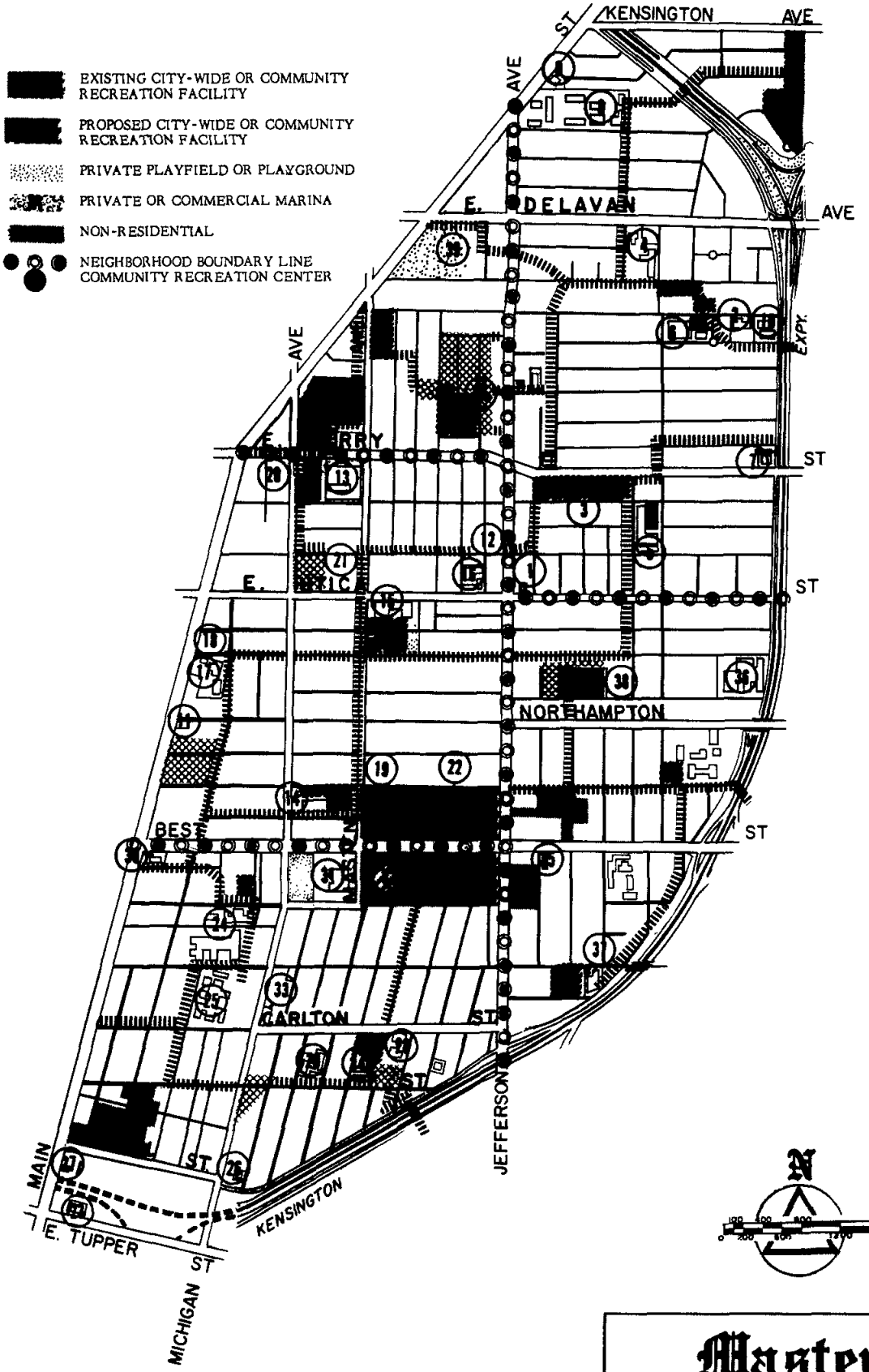
35. Fire Station Eng. No. 21
36. Deaconess Hospital
37. P.S. No. 39
38. Kingsley Plg.

-COLD SPRING-

39. Canisius College Physical Education Center

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census





Masten
Community
RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY
PROPOSED NEIGHBORHOOD FACILITY PHASE - I
PROPOSED NEIGHBORHOOD FACILITY PHASE - II
PROPOSED PEDESTRIAN WALKWAY

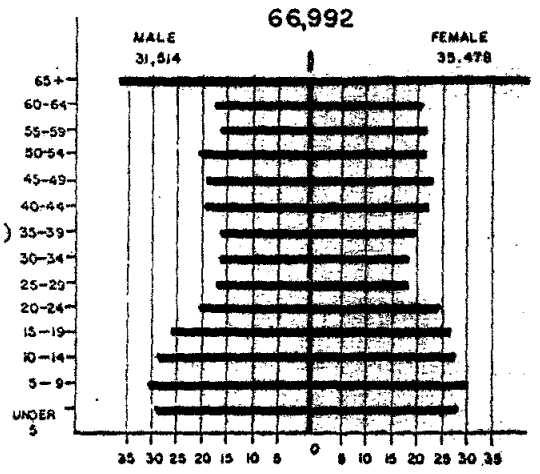
TABLE III - CONTINUED

EAST DELAVAN COMMUNITY - Neighborhood Recreation Plan

PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
Meyer (9.5)	2.8	Moselle Plg. Exp.
**Kenfield (0.9)	12.6	Connally-Olympic (2.5) Courtland-Easton (5.0) Tower-Oakmont (3.0) Bailey-Shreck (2.1)
Lang (5.2)	1.1	P.S. 71
*Humboldt Park (8.0)	4.0	P.S. 59 (1.3) Scajaquada Walkway (2.7)
Moselle (12.0)	0.0	--
*Walden-Bailey (3.8)	4.9	P.S. 9
Schiller Park (5.1)	1.1	Walden-St. Mary's

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Meyer	6.2	Sussex-Northumberland (4.2) Scajaquada-Grider (2.0)
Kenfield	6.8	Roma-Delavan (2.0) Courtland Exp. (4.8)
Lang	3.2	Lang-Weber Exp.
Humboldt Park	6.0	Scajaquada-Fillmore (1.8) Woodlawn-Fillmore (4.2)
Moselle	4.5	Rustie-Doat (3.0) Urban Plg. Exp. (1.5)
Walden-Bailey	4.4	Wood-Keystone
Schiller Park	3.1	Walden-Poplar

MEYER

1. Kensington Heights Playground
2. Kensington Heights M. H. A.
3. Fillmore High School
4. Public School No. 84
5. Meyer Memorial Hospital
6. St. Bartholomew's School
7. Seneca Vocational High School
8. Public School No. 23
9. Moselle Playground
10. Kelly Gardens B. M. H. A.
11. St. Matthews School

KENFIELD

12. Kensington High School
13. Kenfield Housing M. H. A.
14. Immaculate Heart of Mary School
15. Langfield Housing M. H. A.
16. Public School No. 82
17. St. Gerard's School
18. St. Lawrence School

LANG

19. Branch Library
20. Archbishop Carroll High School
21. Lang-Weber Plg.
22. Bishop Turner High School
23. Playground
24. Public School No. 71

SCHILLER

25. Queen of Peace School
26. Schiller Park & Pool
27. Public School No. 11

WALDEN - BAILEY

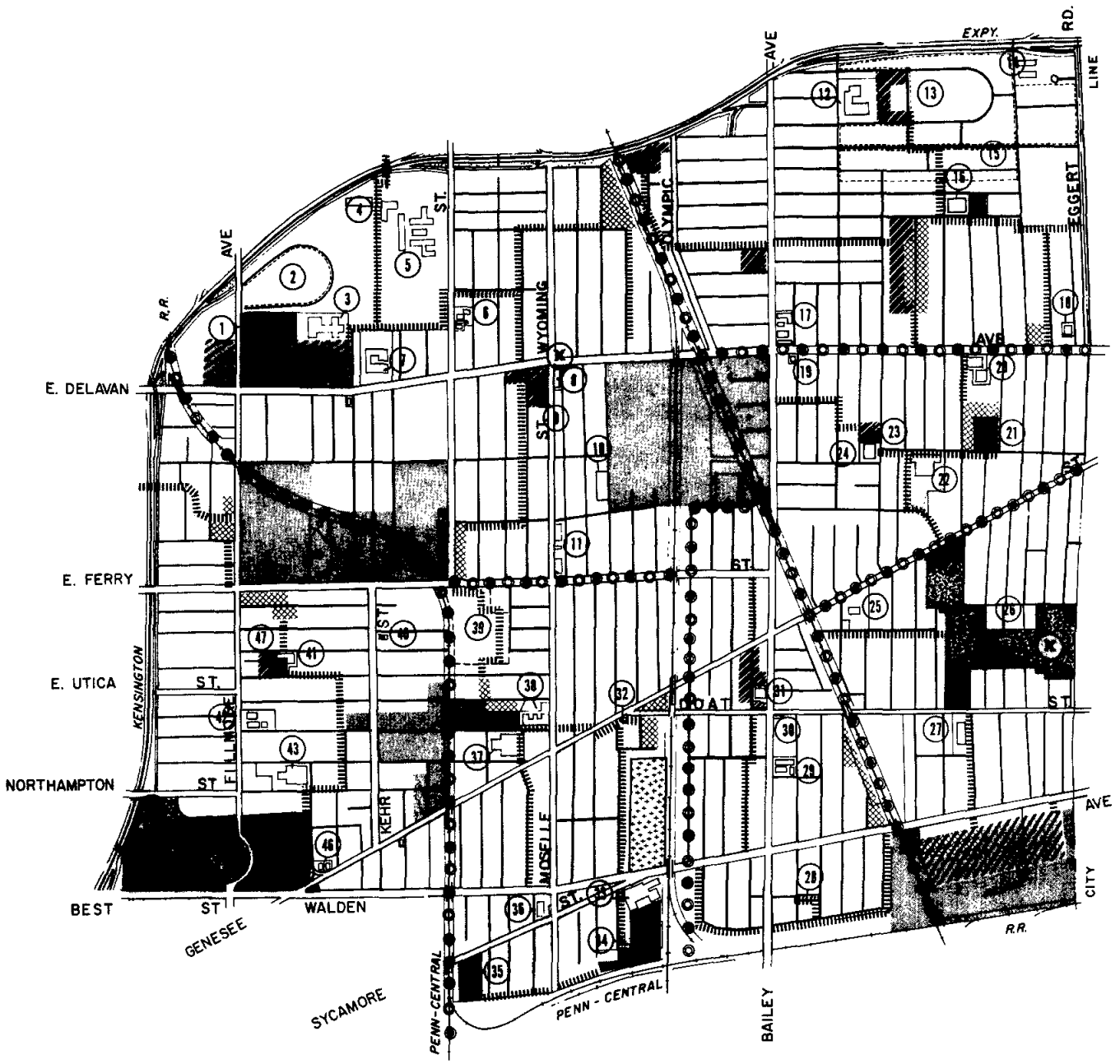
28. Scheu Park
29. Holy Name of Jesus School
30. Fire Station No. 13
31. Public School No. 9

MOSELLE

32. Branch Library
33. Emerson Vocational High School
34. Emerson Playground
35. Nowak Playground
36. St. Luke's School
37. Genesee-Humboldt Jr. High School
38. Public School No. 62 and Urban Playground
39. Grider-Ferry M. H. A.

HUMBOLDT PARK

40. Fire Station No. 33
41. Public School No. 59
42. St. Mary Magdalene School
43. East High School
44. Museum of Science
45. Humboldt Park (Wading Pool - Ice Rink)
46. Police Station No. 12
47. Glenwood Playground



EXISTING CITY-WIDE OR COMMUNITY RECREATION FACILITY

PROPOSED CITY-WIDE OR COMMUNITY RECREATION FACILITY

PRIVATE PLAYFIELD OR PLAYGROUND

PRIVATE OR COMMERCIAL MARINA

NON-RESIDENTIAL

NEIGHBORHOOD BOUNDARY LINE
COMMUNITY RECREATION CENTER

N

East Delavan
Community
RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY

PROPOSED NEIGHBORHOOD FACILITY PHASE - I

PROPOSED NEIGHBORHOOD FACILITY PHASE - II

PROPOSED PEDESTRIAN WALKWAY

TABLE III - CONTINUED

CENTRAL COMMUNITY - Neighborhood Recreation Plan

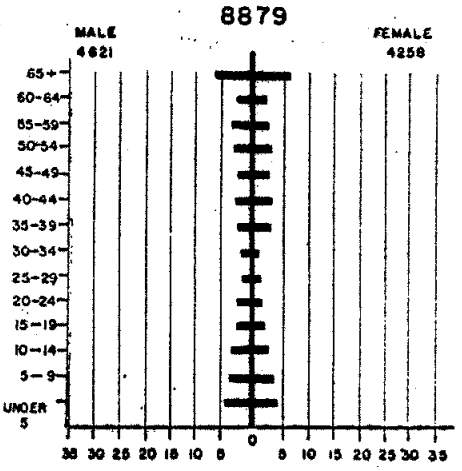
PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
Waterfront (1.8)	8.7	WATERFRONT REDEVELOPMENT AREA
Business District (1.5)	3.0	Church St. Mall (2.3) Walkway (0.7)
Auditorium (0.0)	--	--

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Waterfront	5.3	West-Carolina
Business District	2.3	Lafayette Sq. (0.8) St. Michael's-Main (1.5)
Auditorium	--	--

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



FACILITIES BY NEIGHBORHOODS

WATERFRONT

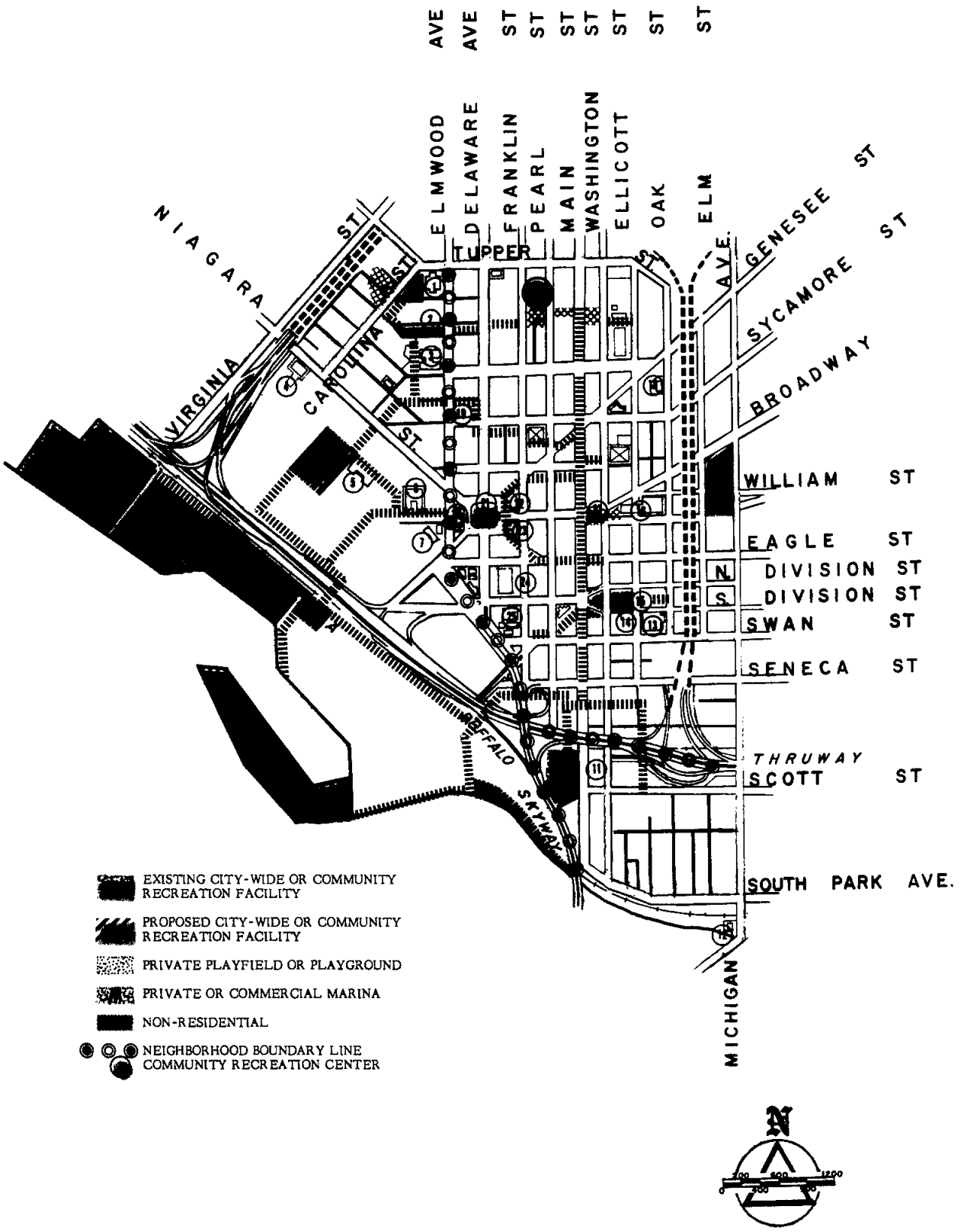
1. School 76
2. Johnson Park
3. Hutchinson Technical H.S.
4. Columbus Hospital
5. School 73
6. Fire Dept. Headquarters
7. St. Anthony's School
8. Proposed Community College
9. Proposed Marina

AUDITORIUM

10. Memorial Auditorium
11. N.Y.S. Gen. Donovan Bldg.
12. Fire Boat Station

BUSINESS DISTRICT

13. Old Post Office
14. Fire Station 1
15. Church Street Extension
16. Central Library
17. Lafayette Square
18. Boys Vocational H.S.
19. New Federal Building
20. City Hall
21. Niagara Square
22. State Building
23. Federal Building
24. County Buildings
25. Police Headquarters



Central Community RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY
PROPOSED NEIGHBORHOOD FACILITY PHASE - I
PROPOSED NEIGHBORHOOD FACILITY PHASE - II
PROPOSED PEDESTRIAN WALKWAY

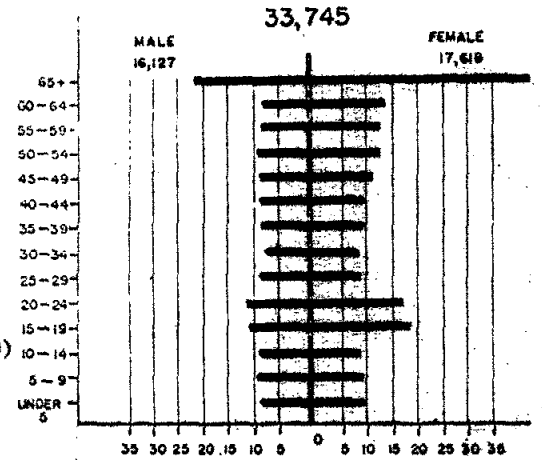
TABLE III - CONTINUED

ELLICOTT COMMUNITY - Neighborhood Recreation Plan

PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
*Willert Park (4.6)	6.4	Walnut-William (3.2) Willert Pk. Exp. (3.2)
**Johnson (2.0)	8.0	Sycamore-Monroe (5.6) Broadway-Grey (2.4)
*Emslie (3.2)	5.8	Adams-Howard
Ellicott Park (12.0)	3.0	Welcome-Hall Exp.

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Willert Park	5.5	Broadway-Pine (3.5) Broadway-Cedar (2.0)
Johnson	5.0	Sherman-High (4.0) Johnson Plg. Exp. (1.0)
Emslie	4.5	Sperry Plg. Exp. (1.0) William-Sherman (2.0) Walkways (1.5)
Ellicott Park	7.5	Seneca-Myrtle

WILLERT PARK

1. P. A. L.
2. P. S. No. 47
3. Booth Memorial Hospital
4. Wende Plg.
5. P. S. No. 12
6. Willert Park
7. Willert Park Housing
8. Fire Station No. 3
9. St. Mary's School
10. Streets Department Depot
11. Police Station No. 4

ELLICOTT

12. Emergency Hospital
13. P. S. No. 32
14. Ellicott Mall
15. Clinton Jr. High School
16. J. F. K. Recreation Center
17. Ellicott Recreation Center
18. P. S. No. 6
19. St. Columba School
20. Talbert Mall
21. Police Garage
22. Welcome Hall Place
23. Sewage Pumping Station

LARKIN

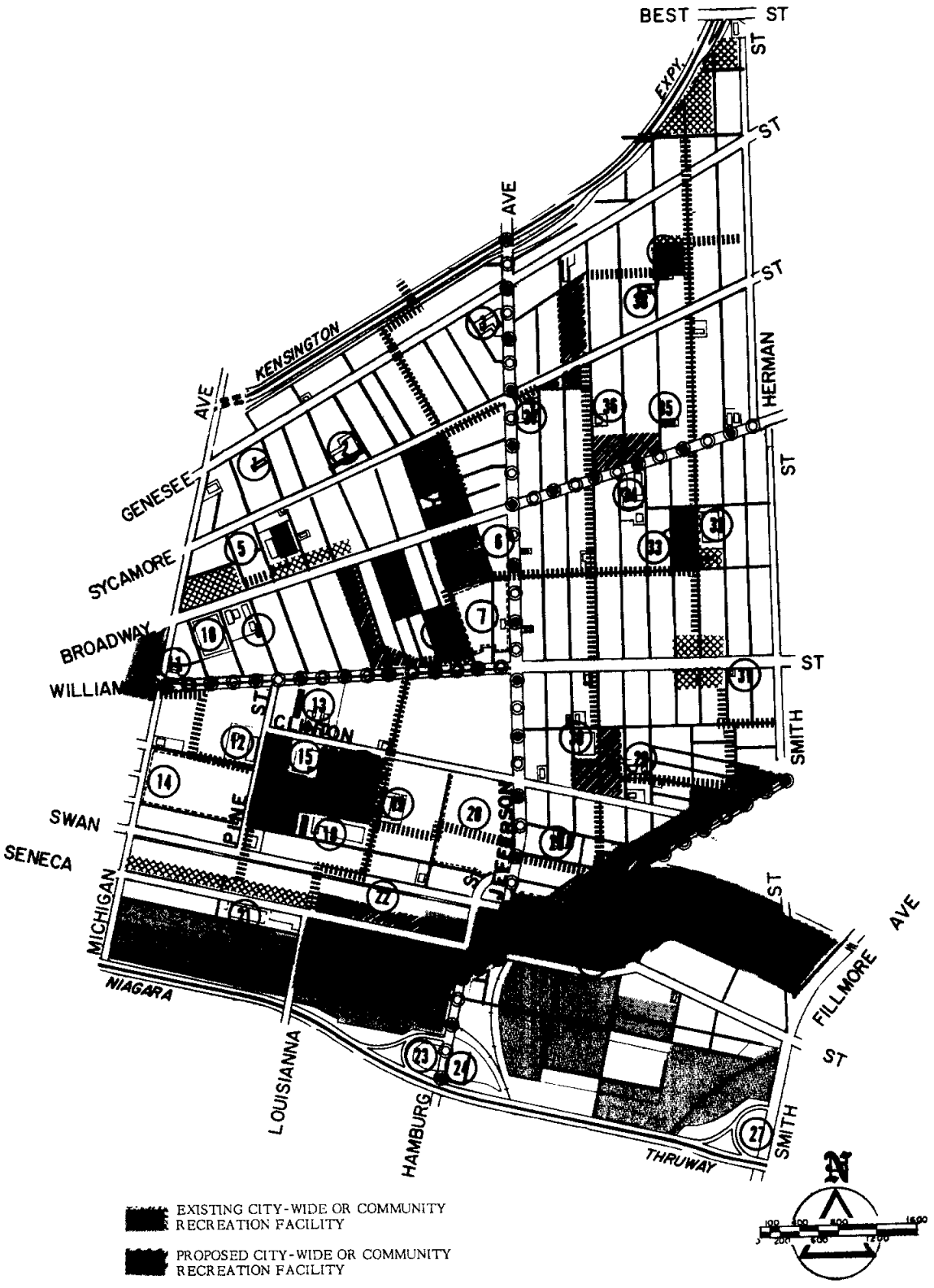
24. Hamburg St. Ramps
25. Fire Station, No. 5
26. St. Patrick's School
27. Smith St. Ramps

EMSLIE

28. P. S. No. 50
29. Sacred Heart School
30. P. S. No. 75
31. Post Office - A-
32. P. S. No. 31
33. Sperry Playground
34. St. Ann's School

JOHNSON

35. Fire Station No. 27
36. Westminister Community House
37. P. S. No. 41
38. Johnson Playground



Ellicott Community RECREATION PLAN

- EXISTING NEIGHBORHOOD FACILITY
- PROPOSED NEIGHBORHOOD FACILITY PHASE - I
- PROPOSED NEIGHBORHOOD FACILITY PHASE - II
- PROPOSED PEDESTRIAN WALKWAY

TABLE III - CONTINUED

EAST SIDE COMMUNITY - Neighborhood Recreation Plan

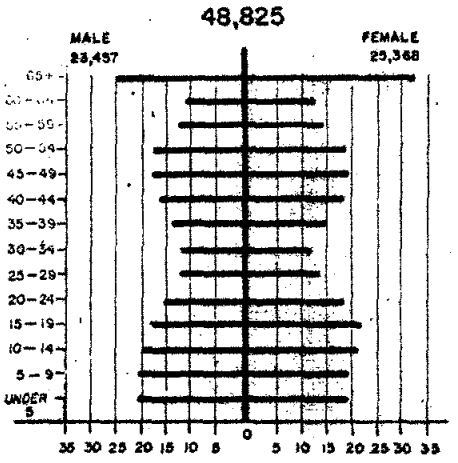
PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
**Mills (1.7)	7.3	Wilson - A St. (4.0) Sycamore-Rother (3.3)
*Person (3.2)	3.8	Broadway-Young (2.6) Broadway-Person (1.2)
**Pullman (0.0)	2.0	Pullman-Schutrum
Lovejoy (10.4)	--	--
**Broadway-Fillmore (0.3)	9.7	Woltz-Mills & Walkway(3.7) P.S. 57 (1.0) Memorial Dr.-Broadway(5)
**Peckham (0.0)	4.3	Peckham-Townsend
**Onieda (0.2)	1.8	S. Railroad
**Dingens (0.0)	0.7	Cambria-Gordon Sts.

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Mills	4.5	Sycamore-Rother Exp.
Person	3.5	Person-Empire (2.0) Broadway-Mohr (1.5)
Pullman	1.0	Armbruster (1.0)
Lovejoy	4.9	Benzinger-King (3.4) Davey Plg. Exp. (1.5)
Broadway-Fillmore	5.0	Lathrop-Broadway (1.2) Detroit (2.8) Curtis-Newton (1.0)
Peckham	2.2	Peckham-Townsend
Onieda	1.0	P.S. 40 (0.7) S. Railroad-Olga (0.3)
Dingens	0.4	Cambria-Gordon Exp.

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



-Mills-

1. M.H.A. Schwab Terrace
2. P.S. No. 24
3. St. Mary of Sorrow School
4. P.S. No. 90
5. P.S. No. 58
6. Queen Most Holy Rosary School
7. St. Adelbert's School
8. Transfiguration School

-Broadway Fillmore-

9. St. Felix Working Girls Home
10. Fronczak Branch Library
11. P.S. No. 57
12. Broadway Market
13. Post Office F
14. Police No. 8
15. Fire Station No. 11
16. Ulinski Senior Citizens' Center (N. E. corner)
17. Corpus Christi School

-Peckham-

18. St. Stanislaus School
19. Bishop Colton H.S.
20. Polonia Playground

-Oneida-

21. St. Nickolas School
22. P.S. No. 40
23. Holy Apostles Peter & Paul

-Babcock-

24. City Garage
25. Boys Club of Buffalo
26. P.S. No. 26 and Mullen Plg.
27. Police Station No. 9
28. St. Monica School
29. Collins Playground

-Baitz-

30. Fire Station No. 35

-East Industrial Park No. 2-

31. P.S. No. 25
32. Precious Blood School
33. Thruway Industrial Park

-East Industrial Park No. 1-

34. U.S. Post Office (Main Office)
35. Penn Central Terminal

-Person-

36. Lincoln Plg.
37. St. John Kanty Sch.
38. P.S. No. 44
39. Fire Station No. 22
40. St. Joachin Sch.

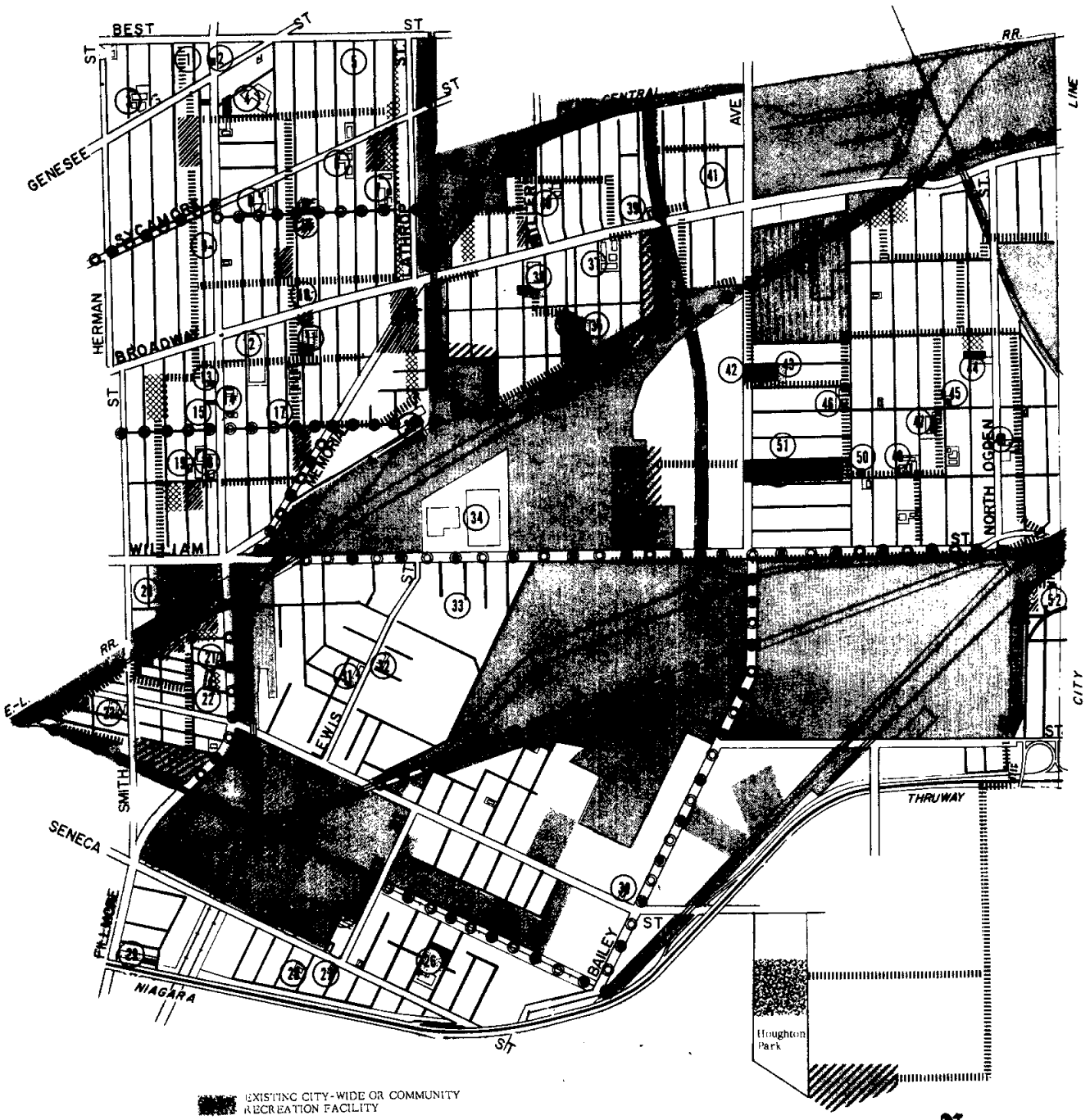
-Pullman- (41)

-Lovejoy-

42. Police Sta. No. 11
43. Moreland Plg.
44. Davey Plg.
45. Fire Sta. No. 28
46. Visitation Sch.
47. P.S. No. 43
48. St. Francis Assisi School
49. St. Agnes School
50. Lovejoy Branch Library
51. Hennepin Park

-Dingens-

52. City Incinerator (East Side)



EXISTING CITY-WIDE OR COMMUNITY RECREATION FACILITY

PROPOSED CITY-WIDE OR COMMUNITY RECREATION FACILITY

PRIVATE PLAYFIELD OR PLAYGROUND

PRIVATE OR COMMERCIAL MARINA

NON-RESIDENTIAL

NEIGHBORHOOD BOUNDARY LINE
COMMUNITY RECREATION CENTER

N

East Side
Community
RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY

PROPOSED NEIGHBORHOOD FACILITY PHASE - I

PROPOSED NEIGHBORHOOD FACILITY PHASE - II

PROPOSED PEDESTRIAN WALKWAY

TABLE III - CONTINUED

BUFFALO RIVER COMMUNITY - Neighborhood Recreation Plan

PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
Perry (10.0)	--	--
W. Hopkins (3.3)	--	--
Elk (0.0)	--	--
Hydraulics (2.7)	--	--
South Industrial (0.0)	--	--

PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Perry	5.0	Hamburg-Republic (2.0) P.S. 4 Exp. (1.0) Sullivan Pk. Exp. (2.0)
W. Hopkins	--	--
Elk	--	--
Hydraulics	--	--
South Industrial	--	--

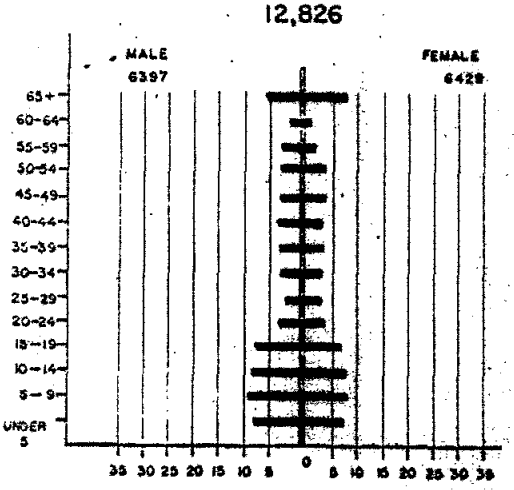
PERRY

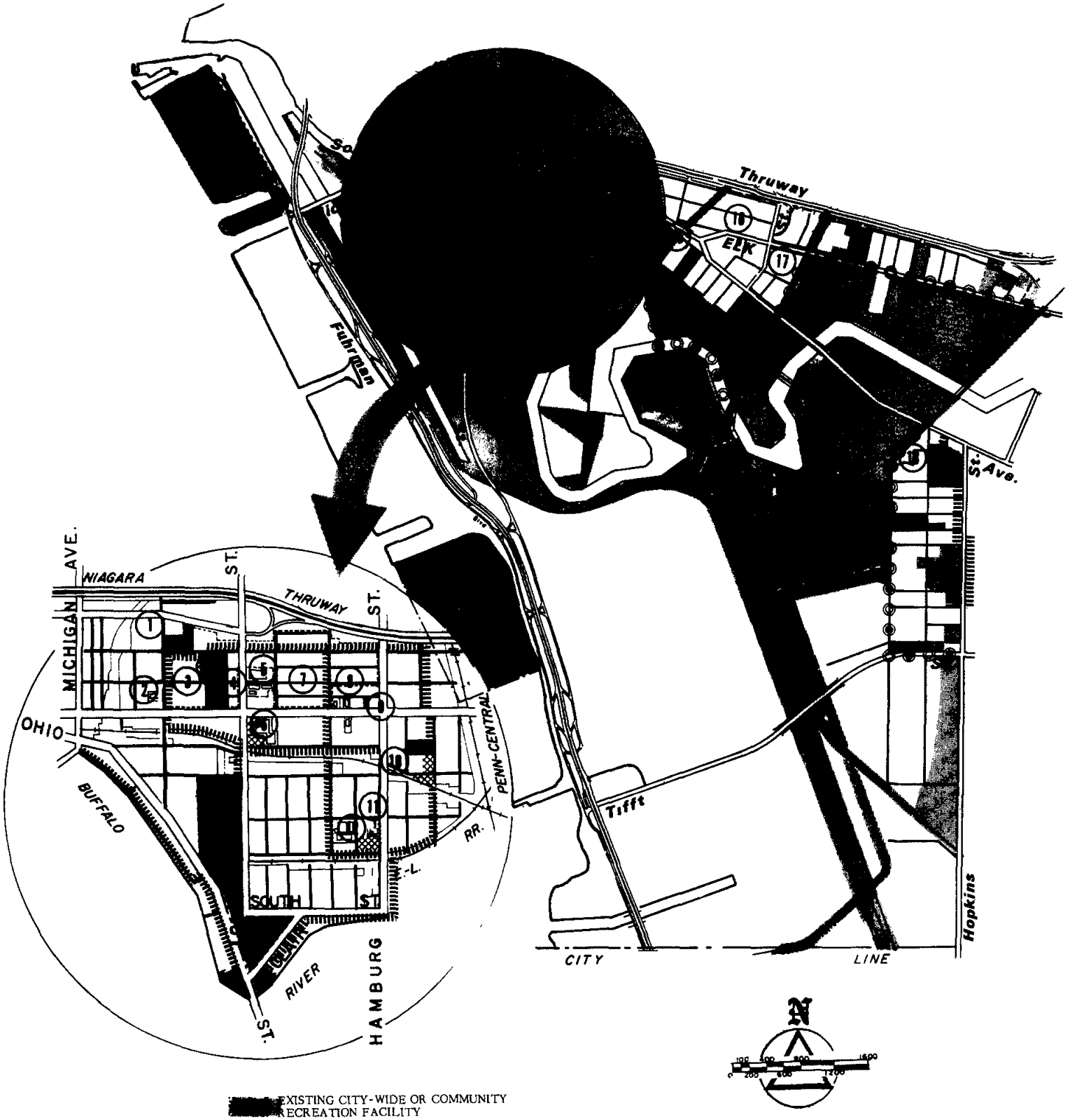
1. Chicago-Perry Plg.
2. Fire Station
3. Commodore Perry Housing
4. Lanigan Plg.
5. St.Bernard School
6. School 4
7. Commodore Perry Housing
8. Library
9. St.Valentine School
10. Sullivan Park
11. School 34
12. Our Lady of Perpetual Help School
13. Father Conway Plg.

OTHER

14. Times Beach
15. Leddy Plg.
16. School 33
17. St.Stephen School
18. Taylor Plg.

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census





EXISTING CITY-WIDE OR COMMUNITY RECREATION FACILITY

PROPOSED CITY-WIDE OR COMMUNITY RECREATION FACILITY

PRIVATE PLAYFIELD OR PLAYGROUND

PRIVATE OR COMMERCIAL MARINA

NON-RESIDENTIAL

NEIGHBORHOOD BOUNDARY LINE
COMMUNITY RECREATION CENTER

Buffalo River Community

RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY

PROPOSED NEIGHBORHOOD FACILITY PHASE - I

PROPOSED NEIGHBORHOOD FACILITY PHASE - II

PROPOSED PEDESTRIAN WALKWAY

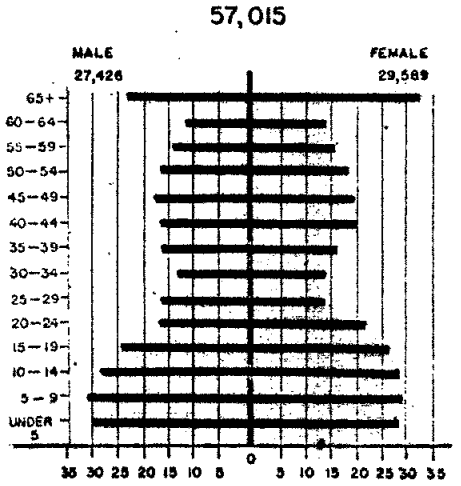
TABLE III - CONTINUED

SOUTH BUFFALO COMMUNITY - Neighborhood Recreation Plan

PHASE ONE:

Neighborhood (with existing acreage)	Phase I Additional Acreage Required	Suggested Location
Houghton Park (10.0)	0.0	--
Seneca (8.3)	0.0	--
Triangle (10.5)	0.0	--
Cumberland (9.8)	0.0	--
Cazenovia Pk. (12.8)	0.0	--
South Park (18.6)	0.0	--
South Abbott (11.8)	0.0	--

COMMUNITY POPULATION BY AGE AND SEX
Source: 1966 Census



PHASE TWO:

Neighborhood	Phase II Additional Acreage Required	Suggested Location
Houghton Park	5.0	Rejtan-Matejko
Seneca	0.0	--
Triangle	1.1	P.S. 28
Cumberland	0.7	Midland-South Side
Cazenovia Pk.	0.0	--
South Park	1.3	Choate-South Park
South Abbott	0.2	Ped. Walkway

HOUGHTON PARK

1. Public School No. 69
2. Houghton Park
3. Neighborhood House
4. Bishop Ryan High School
5. St. Casimir School
6. St. Bernard School

SENECA

7. Southside Jr. High School
8. Mungovan Park
9. Fire Station No. 25 - Police Station No. 9
10. Bulter Park
11. Public School No. 27
12. Hillery Playground
13. St. Teresa's School

CAZENOVIA

14. Post Office Cazenovia Branch
15. Public School No. 70
16. Seneca Indian Park
17. Cazenovia Branch Library
18. St. John School
19. Cazenovia Park

CUMBERLAND

20. Heacock Park
21. Y. M. C. A.
22. St. Thomas Aquinas School
23. Bishop Timon High School
24. Public School No. 72
25. Mt. Mercy Sister of Mercy Hospital

TRIANGLE

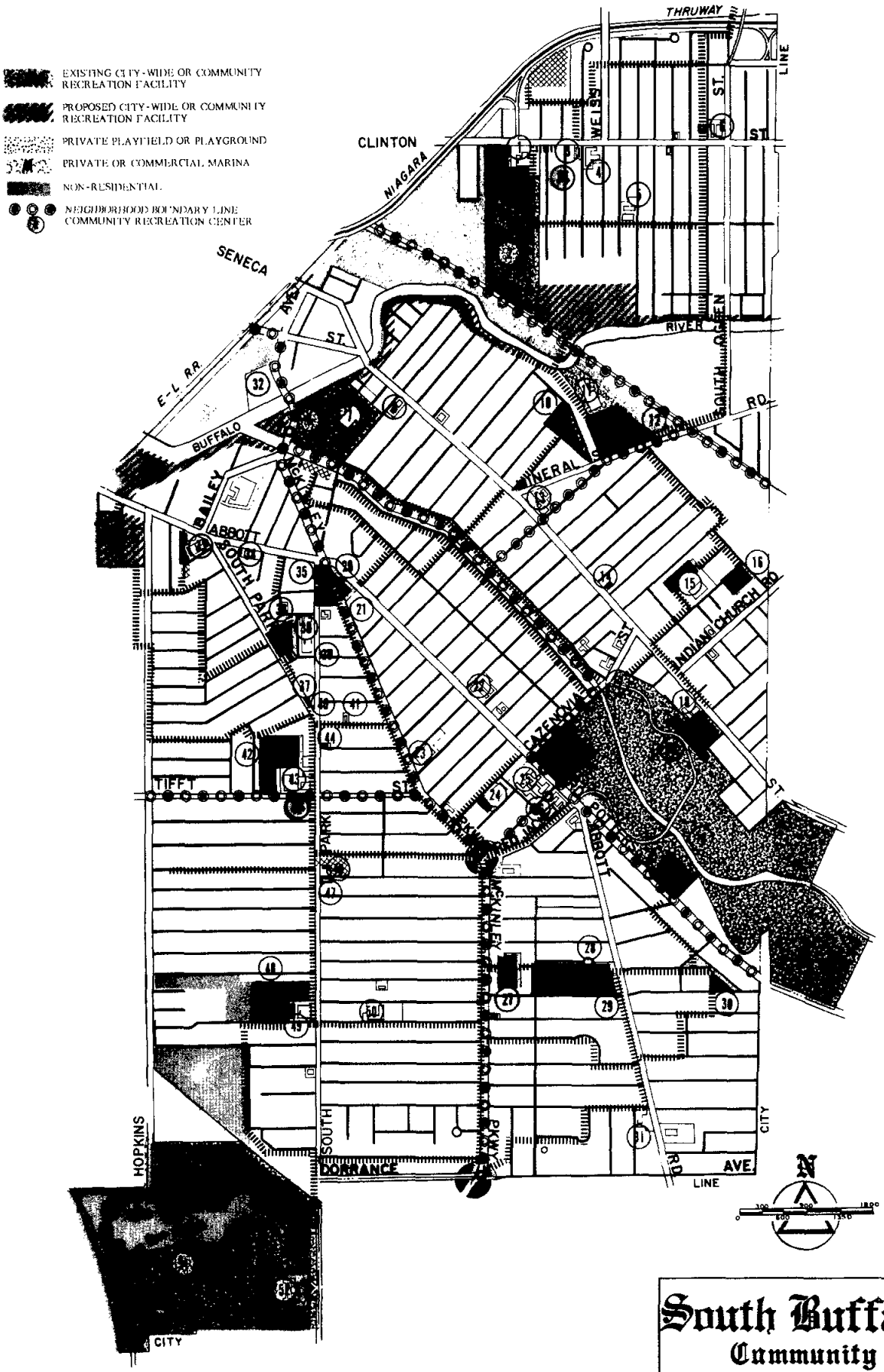
32. Sewer Authority Pumping Station
33. Public School No. 28
34. St. Agatha School
35. Heacock Park
36. Taylor Park
37. Tyler Park
38. South Park High School
39. Fire Station No. 6
40. Y. W. C. A.
41. Bishop Timon (Annex)
42. Mulroy Playground
43. Holy Family School
44. Post Office - South Park Station

SOUTH PARK

45. Neighborhood House No. 3
46. Library Dudley Branch
47. Police No. 15 & Fire Station No. 30
48. Okell Playground
49. Public School No. 29
50. St. Ambrose School
51. South Park
52. Botanical Gardens

SOUTH ABBOTT

26. Mt. Mercy Academy
27. Brookdale Park
28. Public School (Playground) No. 67
29. Fire Station No. 4
30. Sheldon Park
31. St. Martins School



South Buffalo Community
RECREATION PLAN

EXISTING NEIGHBORHOOD FACILITY
PROPOSED NEIGHBORHOOD FACILITY PHASE - I
PROPOSED NEIGHBORHOOD FACILITY PHASE - II
PROPOSED PEDESTRIAN WALKWAY

TABLE IV - TOT LOT STANDARDS

The provision of tot lots as part of the neighborhood recreation requirements is to be considered as an option available to a neighborhood group or other sponsoring agency which will assume supervision and maintenance of the facility. Tot lots are to serve as a substitute for backyards in medium and high density residential areas and should serve an area within a 1,000 foot service area. The size for the highest population density areas is based on forty square feet per child under five which is calculated as ten per cent of the population of the neighborhood. Other areas are calculated from the planning density of neighborhoods in the following manner:

CATEGORY	SYMBOL	PERSONS PER ACRE	TOTAL TOT LOT AREA PER 1,000
1	*	60-90 (20-30 H.U.)	2,000 Sq. Ft.
2	**	90-120 (30-40 H.U.)	3,000 Sq. Ft.
3	***	Over 120 (over 40 H.U.)	4,000 Sq. Ft.

The facility should be located as a part of a neighborhood recreation area, near a pedestrian walkway, or as an element of a residential development. Municipal housing projects, as well as other housing developments should include this type of facility. Land permanently dedicated by the city for such use would be considered as part of the neighborhood recreation requirement.

Communities With Medium and High Population Densities

Community	Persons in 000's 1966	Planning Population in 000's	Planning Density Persons Per Acre	Percent of Population Under 5 Yrs. 1966	No. of Children Under 5 Yrs. 1966
Riverside	32	30	54	9.03%	2848
West Side	55	55	83	9.43%	5173
Elmwood	33	35	62	5.40%	1791
Masten	50	50	77	11.11%	5507
East Delavan	67	70	55	8.61%	5760
Central	9	15	163	8.90%	796
Ellicott	34	45	111	11.56%	3928
East Side	49	45	73	8.37%	4086
Buffalo River	13	10	111	10.94%	1386
Total City (Incl. all 12 Communities)	482	500	60	10.02%	48247

TOT LOT STANDARDS APPLIED TO INDIVIDUAL NEIGHBORHOODS, LISTED UNDER COMMUNITIES. SQUARE FOOTAGE *INDICATED WITH THE SUGGESTED NUMBER OF FACILITIES IN PARENTHESIS.*

RIVERSIDE COMMUNITY
Black Rock * 10,400 sq. ft. (3). Upper Black Rock * 7,2000 sq. ft. (2).

WEST SIDE COMMUNITY
Forest * 12,000 sq. ft. (3). Grant Ferry * 31,000 sq. ft. (7). Front Park * 37,000 sq. ft. (8). Lakeview ** 45,000 sq. ft. (9).

ELMWOOD COMMUNITY
Bryant * 18,600 sq. ft. (4). Allen ** 30,000 sq. ft. (6)

MASTEN COMMUNITY
Cold Spring * 12,000 sq. ft. (3). Masten Park * 12,400 sq. ft. (3). Fruit Belt ** 27,000 sq. ft. (6). Hamlin Park * 29,200 sq. ft. (6). Kingsley * 16,000 sq. ft. (4).

EAST DELAVAN COMMUNITY
Humboldt Park * 24,000 sq. ft. (5). Moselle * 11,000 sq. ft. (3). Walden Bailey * 17,400 sq. ft. (4).

CENTRAL COMMUNITY
Waterfront *** 42,000 sq. ft. (9). Business District *** 18,000 sq. ft. (4).

ELLICOTT COMMUNITY
Willert Park *** 44,000 sq. ft. (9). Ellicott Park *** 60,000 sq. ft. (12). Johnson ** 30,000 sq. ft. (6). Emslie ** 27,000 sq. ft. (6).

EAST SIDE COMMUNITY
Mills ** 27,000 sq. ft. (6). Broadway-Fillmore ** 30,000 sq. ft. (6). Peckham ** 12,900 sq. ft. (3). Oneida ** 6,000 sq. ft. (2). Person ** 21,000 sq. ft. (5). Fullman * 4,000 sq. ft. (1).

BUFFALO RIVER COMMUNITY
Perry ** 30,000 sq. ft. (6).

In addition, a tot lot serving a pocket of medium or high density population (over 20 dwelling units per acre) in an otherwise low density neighborhood may be provided if requested by a duly sponsored group.

Table V, Community Recreation Facilities, indicates the density classification of each community, existing playfield and park acreage, the planning requirements, and the additional acreage required to meet the standards. The community park requirement is based on one-half acre per 1000 persons, while the community playfield requirement varies from 0.80 acres to 1.35 acres depending on the density classification of the community. The greater the population density is in a given community, the greater will be the acreage for community playfields. This adjustment is necessary due to the obviously greater need in more densely populated areas. On a city-wide basis the community recreation facilities total approximately 750 acres, or one and one-half acres per 1000 persons. Three elements fall into the community recreation category:

1. Community park-- based on an approximate figure of one-half acre per thousand persons, this facility would emphasize more passive activities in general. The types of facilities suggested are listed in PARK AND RECREATION STANDARDS.
2. Community playfield-- based on a requirement determined by population density, this facility would serve primarily persons over fifteen years of age, emphasizing field sports. The STANDARDS section describes suggested use. In both the first and second category mentioned here, the local needs would have to be determined before developing the facilities.

3. Community recreation centers-- up to this point attention has been paid to the quantitative aspects of the proposals. Of less significance to area requirements but more important to the qualitative aspects are the suggested community recreation centers. In the STANDARDS section, this facility was indicated as a recreation building with no individual area requirements.

Since Buffalo is a highly developed and densely populated city, the proposed recreation plan does not attempt to provide the generally accepted national standard of one acre of recreation land for every 100 persons. In Buffalo's case this would require almost one-quarter of its total land area to be reserved for recreational use. Accommodation for additional recreation needs is suggested to be made through community recreation centers.

These sites would be located near outdoor recreation facilities and would include structures to provide indoor facilities. Like the city as a whole, these sites would be intensively developed. The indoor facilities could include a gymnasium, an auditorium, various play and game rooms, a handicraft workshop, a lounge, and a reading room. The nearby open area would offer the types of outdoor recreation that require small land areas for a large number of persons.

The community recreation centers would be located throughout the city with a service area of one mile or less. They would be provided on the basis of one for each 20,000 persons. Twenty-five such sites are suggested and are indicated by an X on the maps in Table III and by a number on the City and Community Recreation Facilities Map.

Many of the sites contain structures ranging from a shelter house to a full recreation center. Seven of the locations have no structures of any sort. In between this range, structures offer varying degrees of facilities. Older structures may be used initially with additions built with an intention of eventually replacing the old unit. Some of the older facilities were not computed in acreage figures since their retention is questionable. If such facilities are to be retained, the acreage involved should be added to the community resources. If not, a location in a nearby recreation area would be recommended. When additional land is acquired for this purpose, that acreage would be considered as part of the community requirement of the community in which it is located.

TABLE V - COMMUNITY RECREATION FACILITIES

Community (and density classification)	Planning Requirements in acres		Existing Acreage		Additional Acreage Required & Suggested Location	
	Playfield	Park	Playfield	Park	Playfield	Park
Riverside (B)	27.0	15.0	15.2 r	15.0 r	11.8 sq	0.0
North Buffalo (A)	36.0	22.5	27.8 d 8.2 s	22.5 d	0.0	0.0
North East (A)	32.0	20.0	14.1 g 2.9 k	13.4 g	15.0 q	6.6 q
West Side (E)	66.0	27.5	21.3 l 15.0 d	24.0 f	29.7 sq	3.5 sq
Elmwood (C)	30.0	15.0	30.0 d	15.0 d	0.0	0.0
Masten (D)	55.0	25.0	26.5 d	13.0 d 12.0 h	28.5 as	0.0
East Delavan (B)	63.0	35.0	20.0 sc	10.0 sc 25.0 h	20.0 af 23.0 wp	0.0
Central (F)	20.5	7.5	20.5 l	7.5 l	0.0	0.0
Ellicott (F)	61.0	22.5	10.7 e	0.0	7.0 cr 34.0 bs 9.3 jl	18.3 jl 4.2 mw
East Side (D)	49.5	22.5	8.2 p 10.0 ho	5.0 ho	10.0 ho(x) 6.8 p(x) 14.5 wm	5.0 ad 5.5 ef 7.0 fe
Buffalo River (F)	13.5	5.0	11.0 c	0.0	2.5 c(x)	5.0 c(x)
South Buffalo (A)	48.0	30.0	12.4 ho 12.7 m 12.9 cz 3.3 t	15.0 sp 15.0 cz	6.1 t(x) 0.6 tsp	0.0

SUGGESTED COMMUNITY RECREATION CENTERS

1. Riverside Park Community House - Improve
2. Lafayette Center - Proposed
3. Shoshone Center (2 shelter houses)-Improve
4. Winspear Center (U.B. old campus)
5. Roosevelt (Shelter House) - Improve
6. East Oakwood Center - Proposed
7. Delaware Park Center - Develop
8. Jubilee Gym (Expand)
9. West-Potomac Center - Proposed
10. Cold Spring Center - Proposed
11. Delavan-Moselle Center - Improve
12. Schiller Park (2 shelters) - Improve
13. Humboldt Park (Shelter) - Improve
14. Armory Center - Proposed
15. Massachusetts Center - Improve
16. Lakeview Center - Proposed
17. Pearl St. Center - Proposed
18. Johnson (Shelter) - Improve
19. Lincoln (field house) - Improve
20. Hennepin Community House-Improve
21. J.F.K. Center
22. Lanigan Field House
23. Neighborhood House #1-Improve
24. Cazenovia Park Casino-Improve
25. Neighborhood House #3 -Improve

DENSITY CLASSIFICATION KEY

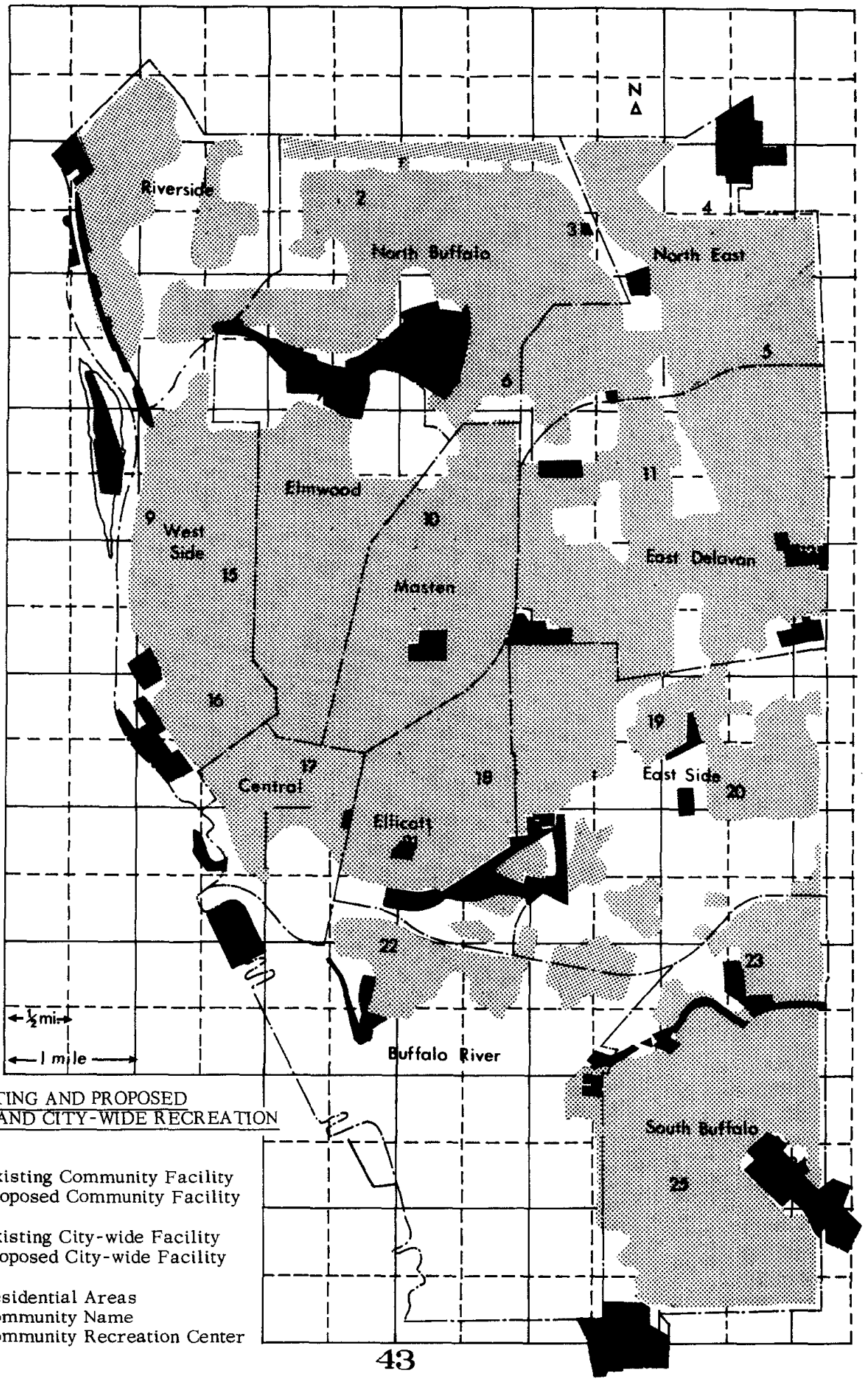
		COMMUNITY PLAYFIELD-ACRES PER 1000 PERSONS	TOTAL ACRES PER 1000 (INCLUDING STANDARD 0.5 ACRES PER 1000 FOR COMMUNITY PARK)
(A)	Under 50 persons per residential acre	0.8	1.3
(B)	50 to 59 persons per residential acre	0.9	1.4
(C)	60 to 69 persons per residential acre	1.0	1.5
(D)	70 to 79 persons per residential acre	1.1	1.6
(E)	80 to 89 persons per residential acre	1.2	1.7
(F)	Over 90 persons per residential acre	1.3	1.8

EXISTING LOCATION LEGEND

c - Father Conway Plg.
cz- Cazenovia Park
d - Delaware Park
e - Ellicott Park (JFK)
f - Front Park
g - Grover Cleveland Park
h - Humboldt Park
ho- Houghton Park
k - Kensington Pool
l - LaSalle Park
m - Mungovan
p - Polonia
r - Riverside Park
s - Shoshone Pool
sc- Schiller Park
sp- South Park
t - Taylor Plg.

SUGGESTED LOCATION LEGEND

ad - Amity - Deshler
af - Appenheimer - Fillmore
as - Armory - Stadium
bs - Bond - Seymore
cr - Central Railroad
ef - Eagle - Fillmore
fe - Fillmore, east side
ho (x) - Houghton expansion
c (x) - Conway Expansion
jl - Jefferson - Louisiana
mw - Michigan - William
p (x) - Polonia expansion
q - LaSalle Quarry
sq- Squaw Island
tsp - Tifft - So. Park
t (x) - Taylor Plg. expansion
wp - Walden - Poplar
wm - William (adj. to prop.



MAP 2 - EXISTING AND PROPOSED
COMMUNITY AND CITY-WIDE RECREATION

Existing Community Facility
Proposed Community Facility

Existing City-wide Facility
Proposed City-wide Facility

Residential Areas

Central — Community Name

25 — Community Recreation Center

Table VI presents the City-wide Recreation Plan. The city-wide facilities are close to the goal established for this category in terms of acreage. To complete the needs of this category a number of smaller facilities are suggested. These concentrate largely on the improvement of water and river front facilities. The proposals fall into the category of specialized facilities.

Perhaps the major problem which may arise over city-wide facilities will not be the addition of acreage but the retention of the existing acreage. The densely developed city has little vacant land available for new projects. The temptation to use park land for expressway routes, school sites, and other public or private developments can be very great. When such proposals arise, each should be examined closely as to its merits. If park land is to be lost, replacement in terms of acreage should immediately be provided.

One source of replacement acreage for city-wide recreation facilities could be found in continued expansion of waterfront facilities including fill operations. Material dredged by the Corps of Engineers from Buffalo Harbor could assist in creating expanded land area or islands which in the future could be used for recreation.

Among the proposals requiring relatively small areas for city-wide

TABLE VI - CITY-WIDE RECREATION FACILITIES

EXISTING FACILITY (and total acreage)	City-Wide Acreage	
All High Stadium (5.7)	5.7	
Bennett Beach (52.7)	52.7	- in Town of Evans
Broderick Park (3.4)	3.4	
Cazenovia Park (191.7)	152.6	
Delaware Park (367.6)	193.5	
Grover Cleveland Park (112.0)	75.7	
Humboldt Park (51.0)	8.0	
Kleinhans Music Hall (4.2)	4.2	
Ontario Boat Ramp & Drive (3.6)	3.6	
Riverside H.S. Athletic Field (3.0)	3.0	
South Park (162.3)	141.3	
War Memorial Auditorium (4.8)	4.8	
War Memorial Stadium (10.2)	---	not counted-future use as community recreation
Total	648.5	

PROPOSED FACILITY	City-Wide Acreage	Suggested Location
Buffalo River Strip Park E.	7.5	Bailey to East City Line
Buffalo River Strip Park W.	2.0	Main to Ohio Street
Waterfront Marina	14.0	Waterfront Redevelopment
Niagara River Strip Park	7.0	Scajaquada Cr. to Riverside Pk.
Theater, Exhibition Hall; other expansions	14.0	Various Locations
Times Beach	57.0	South of Coast Guard Station
Total	101.5	

EXISTING AND PROPOSED TOTAL 750.0 acres

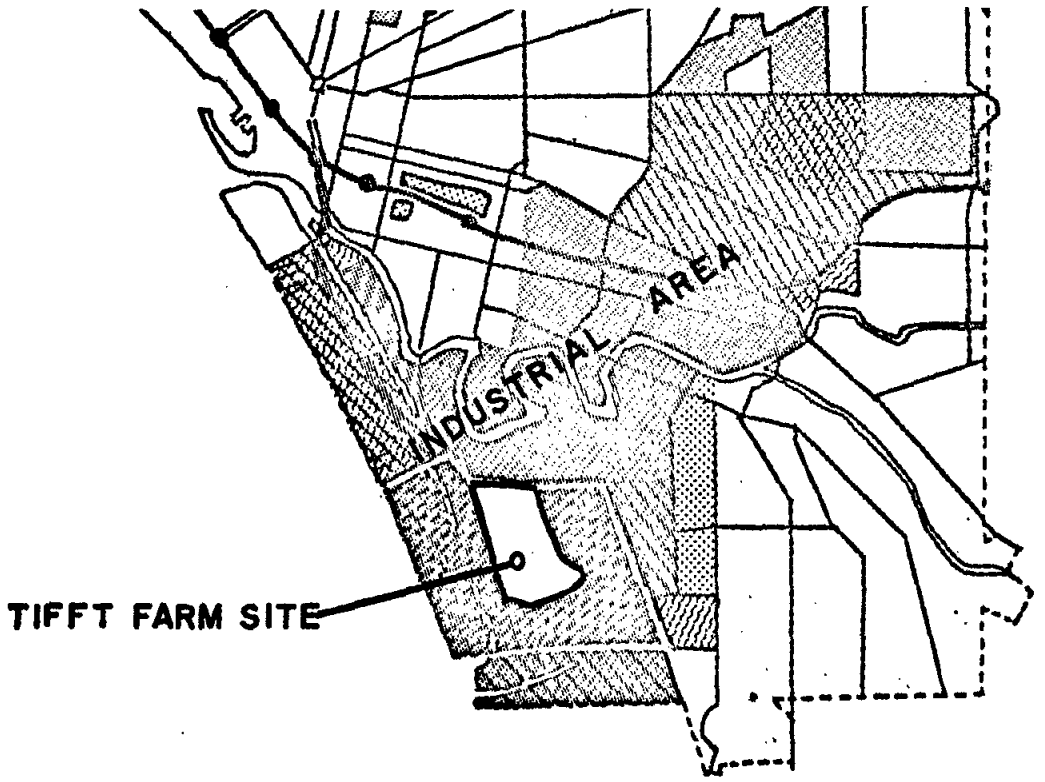
facilities are a civic theater and an exhibition hall. Existing facilities, including the zoo and Kleinhans Music Hall, should continue to be improved. The quality of all facilities should undergo constant improvement in this category particularly since additional quantity is stressed less than in the other categories.

The arrangement and location of additional city-wide facilities would play a role in the open space requirements of the city, see Page 47. The replacement of some city-wide facilities can be expected. Presently there is discussion of the loss of Bennett Beach and a major part of Grover Cleveland Park. Should such losses occur, as well as any other, it would be recommended that areas be immediately indicated to serve as replacement. When such occasions arise in the future the Open Space Buffer Map on Page 48 can serve as a guide for relocation sites.

Special Category of Recreation and Open Space

Tifft Farm Reservation

The Tifft Farm area, comprising approximately 250 acres, was added to the recreation and open space plan on February 3, 1972 as a special category of open space. It is to be reserved primarily for the preservation of wildlife in a natural setting. Previously the area was designated as industrial reserve. As an open space reservation, the area will be a contract to an otherwise industrially oriented area and provide relief from surrounding heavy industrial developments.



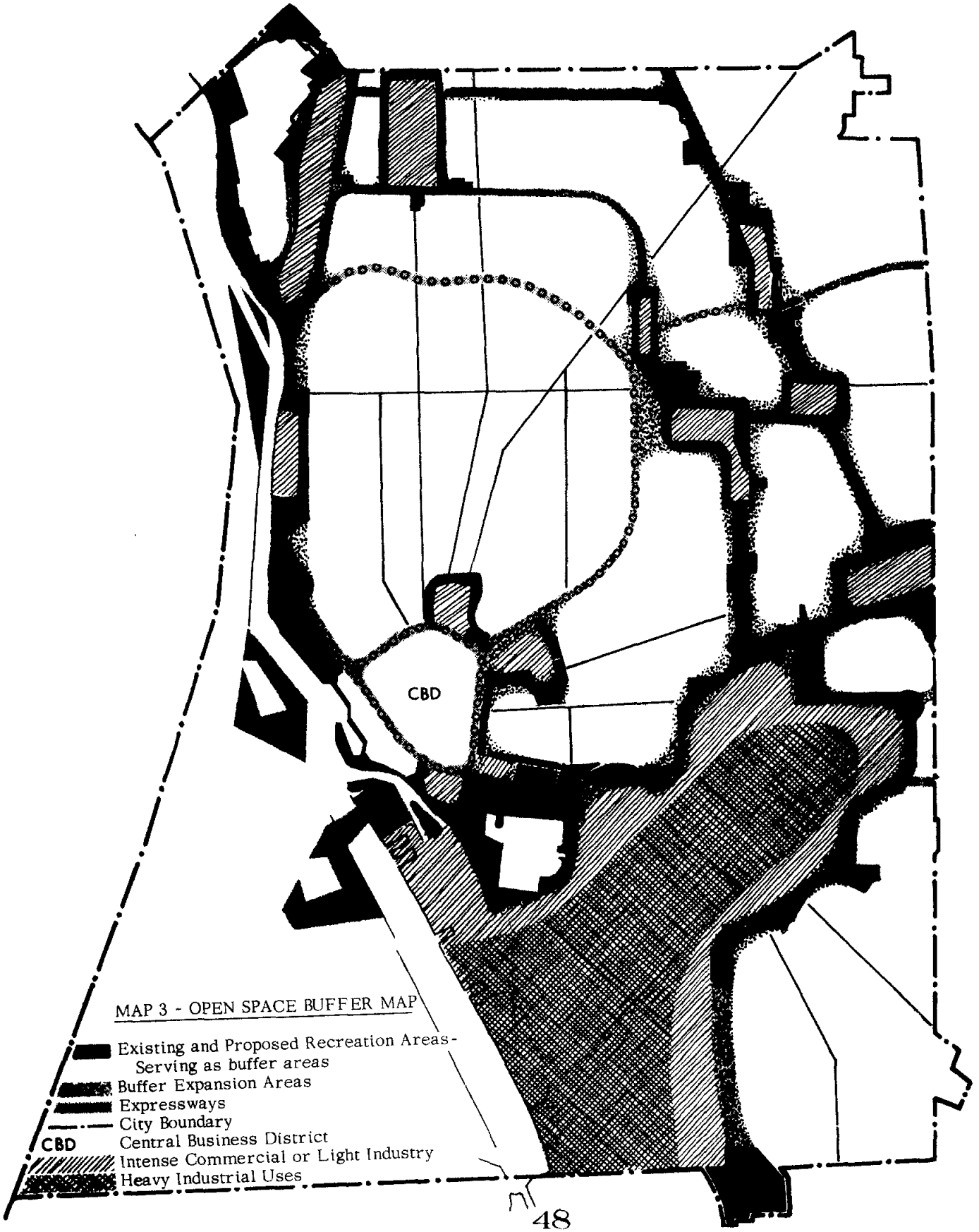
REVISED COMPONENTS OF RECREATION AND OPEN SPACE PLAN (P.61)

1.	Neighborhood Facilities	Goal:	750 acres
2.	Community Facilities		750 acres
3.	City-wide Facilities		750 acres
	TOTAL - 2250 acres		
	0.45 acres per 100 persons		
4.	Special reservation (Tifft Farm)		250 acres
	TOTAL - 2500 acres		
	0.50 acres per 100 persons		

The Recreation and Open Space Plan attempts to satisfy a broad scope of needs. Passive areas, fields for active sports, and centers for intensive recreation uses are recommended. While recreation purposes are obvious, open space considerations are more obscure. In this report open space is meant to describe land other than that built upon which becomes a structural component of the cityscape as well as serving a particular function. It should become a vital part of its surroundings.

Besides serving as an integral part of neighborhood and community design, open space can aid in serving to separate industrial and residential areas throughout the city. Open space should be treated as much of an entity as the structures of the city.

Following this page is a drawing illustrating the separation of industrial and residential areas with open space buffers. This represents a goal beyond the time period of the recreation plan, which would be a twenty to twenty-five year period. It would rely on other facilities in addition to parks or recreation areas. The presentation is in very general terms since the very long range time period it represents will bring with it changes in the urban scene that cannot now be predicted. While such a goal would exceed a reasonable planning period of time, steps in this direction can be taken immediately.


CBD
MAP 3 - OPEN SPACE BUFFER MAP
Existing and Proposed Recreation Areas - Serving as buffer areas
Buffer Expansion Areas
Expressways
City Boundary
CBD Central Business District
Intense Commercial or Light Industry
Heavy Industrial Uses

The dark areas located within the open space buffer indicate existing and proposed recreation facilities as presented in the recreation plan. They represent a combination of neighborhood, community and city-wide facilities which would also serve as part of an open space buffer. Public uses other than recreation could include school campuses, service facilities that are landscaped, and improved expressway rights-of-way. It is hoped that expressway routes will become more compatible to the open space requirements of urbanized areas. Private uses could include commercial recreation areas and marinas as well as general commercial and industrial when these are landscaped and designed in a manner that would serve the purposes of an open space buffer.

Within the buffer would exist heavy commercial and light industrial uses. Heavy industry would be concentrated in the inner portion of the southwestern section of Buffalo. This would be surrounded by a belt of light industrial uses before encountering the open space buffer.

Since the future may find the loss of established park and recreation land it should, when possible, become a policy to replace lost acreage in an area that could become part of such a protective buffer. City-wide acreage that is lost could be replaced both along the waterfront and in areas to assist in creating the buffer protection.

Finally, an attempt to improve railroad rights-of-way would have to be undertaken where they run through residential areas in order to connect industrial areas. It is hoped that both technology and civic awareness will prompt such an undertaking in the future. Where there is duplication of rail lines, one line should be selected for use and the others removed. The existence of open space buffers, consisting of an assemblage of uses to serve the purpose, would be a major step in improving Buffalo's environment.

While stress is placed on quantitative measurements in this report, it will be necessary to rely on qualitative actions to enhance the city's environment. The proposals of this plan should assist the city in improving recreation opportunities as well as in providing visual relief in contrast to the densely developed city. The primary concern of this report is to establish a framework from which the quality of the system of recreation facilities and open space may develop to improve the environment of the city.

The twentieth century city is in the process of relieving itself of the utilitarian form of the nineteenth century city and is striving toward a goal of improved urban design. Through new tools and technology, some yet to be introduced, as well as growing civic interest, it is hoped that a new connotation will be given to "urban environment" by the next century.

APPENDICES

COMMUNITY Neighborhood	Residential Acreage	Prop. Res. Acreage	Capacity Population	1960 Census	1966 Census	Planning Population
RIVERSIDE	537.9	552	42,821	33,208	31,525	30,000
Riverside Park N.	138.2	147	8,040	7,492	7,138	7,100
Riverside Park S.	136.2	148	8,915	8,106	7,916	8,000
Military	106.5	107	9,230	6,512	6,063	6,100
Black Rock 2.8/HU	88.6	90	12,684	5,826	5,283	5,200
Upper Black Rock	68.4	60	3,952	5,272	5,125	3,600
NORTH BUFFALO	1,216.6	1,175	47,655	46,844	43,934	45,000
North Delaware	164.8	142	6,780	7,617	6,778	6,700
North Park	296.8	285	13,827	14,323	13,302	13,000
Starin	193.0	192	6,215	5,857	5,713	6,000
Central Park	203.6	203	8,918	6,693	6,378	7,000
Park Meadow	188.0	183	5,993	6,125	4,864	5,500
Delaware Park	-	-	-	-	-	-
Parkside	170.4	170	(5,922)	6,229	6,899	6,800
NORTH EAST	913.6	905	46,944	41,821	40,208	40,000
University	126.7	135	10,337	6,924	7,682	7,700
LaSalle	267.3	256	11,098	14,647	10,666	10,500
Kensington	340.8	340	14,592	13,256	12,984	12,300
Leroy	178.8	174	10,917	9,994	8,876	9,500
WEST SIDE	745.7	660	74,703	61,900	54,870	55,000
Forest	113.0	76	5,926	7,704	7,832	6,000
Grant-Ferry	233.0	217	19,940	16,714	14,855	15,500
Front Park	244.0	232	25,497	21,398	18,723	18,500
Lakeview	155.1	135	23,340	16,051	13,460	15,000
Squaw Island	-	-	-	33	-	-
ELMWOOD	586.2	562	38,066	35,927	33,177	35,000
Albright	16.4	-	(1,004)	4,968	4,746	5,000
Cleveland	176.9	167	11,931	8,942	8,370	9,000
Bryant	167.6	160	11,843	9,247	8,711	9,300
Allen	57.3	55	6,310	5,998	4,754	5,200
Lincoln	168.0	164	6,978	6,772	6,596	6,500
MASTEN	712.5	647	61,263	54,102	49,563	50,000
Cold Spring	45.6	60	7,186	4,498	3,412	6,000
Hamlin Park	224.0	220	16,427	14,560	14,575	14,600
Masten Park	167.0	160	17,534	13,866	12,042	12,400
Kingsley	126.8	110	10,897	7,962	7,889	8,000
Fruit Belt	149.1	97	9,219	13,216	11,645	9,000

Figures in parenthesis indicate a change in assumption from 1964 Master Plan

COMMUNITY Neighborhood	Residential Acreage	Prop. Res. Acreage	Capacity Population	1960 Census	1966 Census	Planning Population
EAST DELAVAN	1,301.5	1,276	78,892	72,754	66,893	70,000
Meyer	226.7	235	14,303	12,699	11,270	12,300
Kenfield	288.5	288	14,864	14,080	12,212	13,500
Lang	143.9	132	6,303	6,917	6,558	6,300
Humboldt Park	190.5	180	13,246	11,112	11,297	12,000
Moselle	165.7	168	12,900	12,537	10,850	11,000
Walden-Bailey	151.6	138	10,630	9,075	8,760	8,700
Schiller Park	134.6	135	6,646	6,334	5,946	6,200
CENTRAL	82.9	92	19,822	14,876	8,941	15,000
Waterfront	69.8	80	15,759	10,511	6,385	10,500
C.B.D.	12.8	12	4,063	4,063	2,356	4,500
Auditorium	.3	-	-	302	200	-
ELLICOTT	401.7	405	89,054	41,762	33,931	45,000
Willert Park	102.3	90	25,150	13,028	8,823	11,000
Johnson	109.5	105	14,488	8,146	6,988	10,000
Emslie	121.4	100	17,765	12,384	10,014	9,000
Ellicott Park	44.5	110	31,641	6,037	6,234	15,000
Larkin	24.0	-	-	2,167	1,872	-
EAST SIDE	774.2	613	58,779	56,030	48,760	45,000
Mills	114.8	100	11,454	9,496	8,336	9,000
Person	80.8	76	9,324	6,584	5,891	7,000
Pullman	34.4	29	2,677	2,821	1,893	2,000
Lovejoy	226.8	223	10,949	10,993	10,663	10,000
Broadway-Fillmore	114.1	102	14,578	10,367	8,950	10,000
Peckham	47.4	47	6,313	4,863	4,005	4,300
Oneida	24.3	22	2,774	1,932	1,700	2,000
Dingens	20.8	14	710	915	839	700
East Ind. #1	-	-	-	183	0	-
Baltz	25.3	-	-	1,387	1,152	-
Babcock	45.2	-	-	3,764	3,179	-
East Ind. #2	35.9	-	-	2,725	2,152	-
BUFFALO RIVER	183.5	90	11,482	14,281	12,666	10,000
Perry	98.6	90	11,482	9,059	7,743	10,000
Hydraulics	50.3	-	-	3,223	3,122	-
Elk	7.6	-	-	533	498	-
West Hopkins	26.2	-	-	1,262	1,263	-
South Industrial	.8	-	-	204	40	-
SOUTH BUFFALO	1,266.5	1,385	74,104	58,230	56,985	60,000
Houghton Park	173.0	270	13,319	8,842	8,567	10,000
Seneca	111.2	110	(5,188)	5,903	5,543	5,500
Triangle	146.9	145	(7,496)	8,226	7,744	7,800
Cumberland	137.7	140	7,193	6,622	6,948	7,000
Casenovia Park	155.9	170	8,997	8,129	7,813	8,500
South Park	316.7	320	20,130	12,474	12,504	13,200
South Abbott	225.1	230	11,777	8,037	7,866	8,000

Source: POPULATION, HOUSING AND URBAN GROWTH, 1967 - 1990
City Planning Board, Buffalo, N. Y. 1967

RIVERSIDE COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Riverside Pk. N.	TOTAL	7.2	10.7	3.5
	P.S. 65	1.5		
	Williams Plg.	5.7		
Riverside Pk. S.	TOTAL	7.6	12.0	4.4
	P.S. 60	0.6		
	Riverside Pk.	7.0 s		
Military	TOTAL	6.3	9.2	2.9
	P.S. 79	0.4		
	Gay (Ramsdell)	1.7		
	Barrett Plg.	2.5		
	W. Hertel Mid.Sch.	1.7 s		
Black Rock	TOTAL	2.7	7.8	5.1
	P.S. 51	0.7		
	Porter Sq.	1.7		
	Market Sq.	0.3 s		
Upper Bl. Rock	TOTAL	2.5	5.4	2.9
	P.S. 42	0.8		
	W. Hertel Mid.Sch.	1.7 s		
RIVERSIDE COMMUNITY TOTALS		26.3	45.1	18.8

NORTH BUFFALO COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
North Delaware	TOTAL	2.4	10.1	7.7
	P.S. 21	0.5		
	P.S. 81	1.9		
North Park	TOTAL	0.7	19.5	18.8
	P.S. 88	0.7		
Starin	TOTAL	5.1	9.0	3.9
	P.S. 66	1.1		
	P.S. 86	2.0		
	Shoshone Plg.	2.0 s		
Central Park	TOTAL	7.0	10.5	3.5
	P.S. 22	0.6		
	Shoshone Plg.	6.2 s		
	Crocker Tri.	0.2		
Park Meadow	TOTAL	6.7	8.3	1.6
	P.S. 64	0.7		
	Dela.Pk.(3 pts.)	6.0 s		
Parkside	TOTAL	3.5	10.2	6.7
	P.S. 54	0.5		
	Dela. Pk.	3.0 s		
NORTH BUFFALO COMMUNITY TOTALS		25.4	67.6	42.2

s - split facility; see Appendix C

NORTH EAST
COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
University	TOTAL	4.7	11.6	6.9
	P.S. 83	0.9		
	Gr.Clev. Pk.	3.0 s		
	Radcliffe Tri.	0.3		
	Tyler-Winspear Tri.	0.3		
	Tyler-Flower Tri.	0.2		
LaSalle	TOTAL	1.1	15.8	14.7
	P.S. 63	0.6		
	P.S. 78	0.2		
	Range-LaSalle Tri.	0.3		
Kensington	TOTAL	14.1	18.5	4.4
	P.S. 68	0.7		
	P.S. 80	0.9		
	P.S. 85	2.0		
	Roosevelt Plg.	7.5		
	Gr.Clev. Pk.	3.0 s		
Leroy	TOTAL	13.9	14.3	0.4
	P.S. 61	0.6		
	Dewey Plg.	4.1		
	Manhattan(Gleasner)	9.2		
NORTH EAST COMMUNITY TOTALS		33.8	60.2	26.4

WEST SIDE
COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req
Forest	TOTAL	2.6	9.0	6.4
	P.S. 52	0.4		
	Bradley Plg.	2.2		
Grant-Ferry	TOTAL	1.6	23.3	21.7
	P.S. 19	0.2		
	P.S. 45	0.3		
	Colonial Circle	0.9 s		
	Ferry Circle	0.2 s		
Front Park	TOTAL	13.8	27.8	14.0
	P.S. 18	1.2		
	P.S. 38	1.1		
	P.S. 49	0.2		
	P.S. 77	0.5		
	Prospect Park	7.7		
	Mass Plg.	1.6		
	Busti-Mass.-7th Plg.	1.0 s		
	Symphony Circle	0.5 s		
Lakeview	TOTAL	11.8	22.5	10.7
	Seventh Plg.(P.S.1)	0.7		
	P.S. 3	0.4		
	P.S. 36	0.4		
	Days Park	1.6		
	Tauriello Plg.	0.7		
	LaSalle Pk.	8.0 s		
WEST SIDE COMMUNITY TOTALS		29.8	82.6	52.8

s - split facility, see Appendix C

ELMWOOD COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Albright	TOTAL	6.4	6.4	0.0
	Delaware Park	6.4 s	(based on pop. 4250)	
Lincoln	TOTAL	8.4	9.8	1.4
	P.S. 56	0.6		
	Parkways	3.6 s	(based on mall-r.o.w. excluded)	
	Soldiers Place	4.2 s		
Cleveland	TOTAL	2.1	13.5	11.4
	P.S. 17	0.5		
	Colonial Circle	0.4 s		
	Ferry Circle	0.2 s		
	Gates Circle	1.0 s		
Bryant	TOTAL	1.1	14.0	12.9
	P.S. 16	0.4		
	Symphony Circle	0.7 s		
Allen	TOTAL	1.6	7.8	6.2
	Arlington Park	0.7		
	Symphony Circle	0.6 s		
	North-Franklin Tri.	0.3		
	(Elmwood-Edward Tri.)	(0.5)	(to be removed)	
ELMWOOD COMMUNITY TOTALS		19.6	51.5	31.9

MASTEN COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req
Cold Spring	TOTAL	0.2	9.0	8.8
	Masten-Northland Tri.	0.2		
Hamlin Park	TOTAL	1.4	21.9	20.5
	P.S. 53	0.7		
	P.S. 74	0.6		
	P.S. 93	0.1		
Masten Park	TOTAL	6.9	18.6	11.7
	P.S. 48	0.2		
	Masten Plg.	5.2 s		
	Woodlawn Sch.	1.5		
Kingsley	TOTAL	1.5	12.0	10.5
	P.S. 39	0.1		
	Kingsley Plg.	1.4		
Fruit Belt	TOTAL	4.0	13.5	9.5
	Masten Plg.	4.0 s		
MASTEN COMMUNITY TOTALS		14.0	75.0	61.0

s - split facility; see Appendix C

EAST DELAVAN
COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Meyer	TOTAL	9.5	18.5	9.0
	Moselle Plg.	0.7		
	Kens. Hts.	8.8		
Kenfield	TOTAL	0.9	20.3	19.4
	P.S. 82	0.9		
Lang	TOTAL	5.2	9.5	4.3
	Lang-Weber Pk.	2.0		
	P.S. 71	0.6		
	Schiller Pk.	2.6 s		
Humboldt Park	TOTAL	8.0	18.0	10.0
	Humboldt Pk.	6.0 s		
	Glenwood Plg.	1.8		
	S. Parade-Genesee Tri.	0.2		
Moselle	TOTAL	12.0	16.5	4.5
	Emerson Plg.	6.8 s		
	Nowak Plg.	3.8		
	Urban Plg.	1.4		
Walden-Bailey	TOTAL	3.8	13.1	9.3
	Emerson Plg.	3.8 s		
Schiller Park	TOTAL	5.1	9.3	4.2
	P.S. 11	0.8		
	Schiller Park	4.3 s		
EAST DELAVAN TOTALS		44.5	105.2	60.7

CENTRAL
COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Waterfront	TOTAL	1.8	15.8	14.0
	P.S. 76	0.6		
	Johnson Park	1.2		
Business District	TOTAL	1.5	6.8	5.3
	(P.S. 35)	(0.6)	(to be removed)	
	Niagara Square	1.3 s		
	Lafayette Square	0.2 s		
Auditorium-Non-Residential		--	--	--
CENTRAL COMMUNITY TOTALS		3.3	22.6	19.3

s - split facility; see Appendix C

ELLICOTT COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Willert Park	TOTAL	4.6	16.5	11.9
	P.S. 12	1.2		
	P.S. 47	0.3		
	Wende Plg.	0.8		
	Willert Park	2.3		
Johnson	TOTAL	2.0	15.0	13.0
	P.S. 41	0.3		
	Johnson Plg.	1.7		
Emslie	TOTAL	3.2	13.5	10.3
	P.S. 75	0.3		
	P.S. 50 Sp.	(0.4)	(to be removed)	
	Sperry Plg.	2.9		
Ellicott Park	TOTAL	12.0	22.5	10.5
	P.S. 6	0.3		
	P.S. 32	0.3		
	J.F.K. Center	10.4 s		
	Tod-Healy (Welcome Hall)	1.0		
ELLICOTT COMMUNITY TOTALS		21.8	67.5	45.7

s - split facility; see Appendix C

EAST SIDE COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Mills	TOTAL	1.7	13.5	11.8
	P.S. 25 Sp.	0.3		
	P.S. 90	1.4		
Person	TOTAL	3.2	10.5	7.3
	P.S. 44	0.9		
	Lincoln Plg.	2.3		
Pullman	TOTAL	0.0	3.0	3.0
	--	0.0		
Lovejoy	TOTAL	10.4	15.0	4.6
	P.S. 43	0.9		
	Davey Plg.	0.6		
	Hennepin Pk.	6.7		
	Moreland Plg.	2.2		
Broadway-Fillmore	TOTAL	0.3	15.0	14.7
	P.S. 57	0.3		
Peckham	TOTAL	0.0	6.5	6.5
	--	0.0		
Onieda	TOTAL	0.2	3.0	2.8
	P.S. 40	0.2		
Dingens	TOTAL	0.0	1.1	1.1
E. Ind. Pk. #1	(Non-Res.)	0.0	--	--
E. Ind. Pk. #2	(Non-Res.)	(0.3)	--	--
	P.S. 25	(0.3)		
Baitz	(Non-Res.)	(0.0)	--	--
Babcock	(Non-Res.)	(3.1)	--	--
	P.S. 26	(0.6)		
	Collins Plg.	(1.4)		
	Mullin Plg.	(1.1)		
EAST COMMUNITY TOTALS		15.8	67.6	51.8

BUFFALO RIVER COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Perry	TOTAL	10.0	15.0	5.0
	P.S. 4	0.2		
	(P.S. 34)	(0.1)	(to be abandoned)	
	Chicago-Perry Plg.	2.0		
	Sullivan Plg.	1.1		
	Lanigan Pk.	3.2		
	Fr. Conway Plg.	3.5 s		
West Hopkins	(Non-Res.)	(3.3)	--	--
	Taylor Plg.	(3.3)	(Transfer to South Bflo. Comm.)	
Elk	(Non-Res.)	0.0	--	--
Hydraulics	(Non-Res.)	(2.7)	--	--
	Leddy Plg.	(2.6)		
	P.S. 33	(0.1)		
S. Industrial	(Non-Res.)	0.0	--	--
BUFFALO RIVER COMMUNITY TOTALS		10.0	15.0	5.0

s - split facility; see Appendix C

SOUTH BUFFALO COMMUNITY

Existing and Required Recreation Acreage. Phases 1 and 2 Totaled.

Neighborhood	Facility	Existing Acreage	Planning Req. at 1.5/1000	Additional Acreage Req.
Houghton Park	TOTAL	10.0	15.0	5.0
	P.S. 69	1.2		
	Houghton Pk.	8.8 s		
Seneca	TOTAL	8.3	8.3	0.0
	Butler Pk.	2.7		
	Hillery Plg.	5.4		
	Mineral Spg.-Seminole Tri.	0.2		
Triangle	TOTAL	10.5	11.7	1.2
	Taylor Pk.	2.3		
	P.S. 28	0.3		
	Tyler Pk.	0.3		
	Mulroy Plg.	4.5 s		
	Heacock Pk.	2.4		
	McKinley Pkwy.	0.7 s		
Cumberland	TOTAL	9.8	10.5	0.7
	Heacock Pk.	2.5		
	P.S. 72	0.7		
	Caz. Park	5.0		
	McKinley Pkwy.	1.2 s		
	McCellan Circle	0.4 s		
Cazenovia Park	TOTAL	12.8	12.8	0.0
	P.S. 70	1.6		
	Caz. Park	2.2 s		
	Sen. Indian Pk.	1.6		
	Hillery	7.4		
South Park	TOTAL	18.6	19.8	1.2
	Okell Plg.	6.5		
	South Park	6.0 s		
	P.S. 29	0.2		
	Mulroy Plg.	3.0 s		
	McKinley Pkwy.	1.6 s		
	McKinley Circle	0.6 s		
	McCellan Circle	0.7 s		
South Abbott	TOTAL	11.8	12.0	0.2
	P.S. 67	1.1		
	Brookdale	2.2		
	Sheldon Pk.	1.2		
	Caz. Park	4.0 s		
	McKinley Pkwy.	1.1 s		
	McKinley Circle	1.5 s		
	McCellan Circle	0.7 s		
SOUTH BUFFALO TOTALS		81.8	90.1	8.3

APPENDIX C - ASSIGNMENT OF SPLIT FACILITIES

FACILITY (Total Acres)	NEIGHBORHOOD (Acres)	COMMUNITY (Acres)	CITY-WIDE (Acres)	OTHER USES
Cazenovia Pk. (191.7)	S. Abbott (4.0) Cumberld. (5.0) Caz. Pk. (2.2)	S. Bflo.Pk. (15.0) S. Bflo.Plfd(12.7)	152.6	---
Delaware Pk. (367.6)	Park Meadow (6.0) Parkside (3.0) Albright (6.4)	Elmwood Pk. (15.0) Elmwood Plfd.(30.0) N.Bflo.Pk. (22.5) N.Bflo.Plfd.(27.8) Masten Pk. (13.0) Masten Plfd.(26.5) W.Side Plfd.(15.0)	193.5	Expwy.(8.9)
Grover Clevlnd. (112.0)	University(3.0) Kensington(3.0)	N.East Pk. (13.4) N.East Plfd.(14.1)	75.7	NYS DOT (2.8)
Houghton Pk. (36.2)	Houghton (8.8)	E.Side Pk. (5.0) E.Side Plfd. (10.0) S. Bflo. Plfd.(12.4)	---	---
Humboldt Pk. (51.0)	Humboldt (6.0)	E.Delavan Pk. (25.0) Masten Pk. (12.0)	8.0	---
JFK (Ellicott) (21.1)	Ellicott (10.4)	Ellicott Pk. (10.7)	---	---
LaSalle Park (77.3)	Lakeview (8.0)	W.Side Plgd. (21.3) Central Pk. (7.5) Central Plfd. (20.5)	---	Com. College (20.0)
Riverside Park (37.2)	Riv. Pk. S.(7.0)	Riverside Pk. (15.0) Riverside Plfd. (15.2)	---	---
Schiller Park (36.9)	Schiller Pk. (4.3) Lang (2.6)	E.Delavan Pk. (10.0) E.Delavan Plfd. (20.0)	---	---
Shoshone (16.4)	Starin (2.0) Central Park (6.2)	N.Bflo. Plfd. (8.2)	---	---
Fr. Conway (14.5)	Perry (3.5)	Bflo.River Plfd. (11.0)	---	---
W.Hertel Mid. Sch.(3.4)	Military (1.7) Upper Bl. Rock(1.7)	---	---	---
Masten Plg. (9.2)	Masten Park (5.2) Fruit Belt (4.0)	---	---	---
Emerson Plg. (10.6)	Moselle (6.8) Walden-Bailey(3.8)	---	---	---
Mulroy Plg. (7.5)	Triangle (4.5) S. Park (3.0)	---	---	---
Colonial Cir. (5.5)	Cleveland (0.4) Grant-Ferry (0.9)	---	---	Right-of-way
Ferry Circle (1.6)	Cleveland (0.2) Grant-Ferry (0.2)	---	---	Right-of-way
Gates Circle (4.7)	Cleveland (1.0)	---	---	Right-of-way
McClellan Cir. (4.5)	Cumberland (0.4) South Abbott (0.7) South Park (0.7)	---	---	Right-of-way
McKinley Cir. (4.5)	South Abbott (0.7) South Park (0.6)	---	---	Right-of-way
Symphony Cir. (4.5)	Allen (0.6) Bryant (0.7) Front Park (0.5)	---	---	Right-of-way
Lafayette Sq. (1.0)	Business Dist.(0.2)	---	---	Right-of-way
Market Sq. (0.3)	Black Rock (0.3)	---	---	Right-of-way
Niagara Sq.(4.9)	Business Dist. (1.3)	---	---	Right-of-way
Soldiers Pl(8.8)	Lincoln (4.2)	---	---	Right-of-way
Bidwell, Chapin Lincoln Pkwy. (14.4)	Lincoln (3.6)	---	---	Right-of-way
McKinley Pkwy. (28.2)	Cumberland (1.2) S. Abbott (1.1) S. Park (1.6) Triangle (0.7)	---	---	Right-of-way

SCHOOLS: School area indicated includes only open space set aside for recreation; other open space is not considered.

TRIANGLES: Calculated as additional open space for passive recreation when two-tenths of an acre or more and incorporated into a pedestrian way. Under that figure, triangles are too small to be considered more than part of a standard street right-of-way.

CENTER STRIPS: Other than parkways, center strips are not significant enough to consider as additional open space or recreation area.

CIRCLES AND SQUARES: Area calculated as open space for passive recreation beyond that used for street right-of-way purposes, including customary sidewalks.

PARKWAYS: Due to lack of street right-of-way lines in the mall area, poor accessibility, and the lack of desirability for use as active recreation areas, the area used for open space calculation is one-quarter of the non-street area. While of little significance for active recreation, the city maintained parkways are significant for the open space needs of the few neighborhoods in which they exist.

APPENDIX D - INVENTORY OF EXISTING OPEN SPACE AND RECREATION AREAS IN BUFFALO, PUBLIC AND SEMI-PUBLIC

1. City of Buffalo

   A. Parks Department

Land under jurisdiction of the Parks Department with acreage			Acreage serving as open space or for recreation*	
10 Major Parks	1097.82		1061.2	
15 Small Parks	37.49		38.7	
41 Playgrounds	185.06		171.7	
5 Miscellaneous	79.31		107.1	
8 Circles	37.52		12.8	
5 Squares	9.01		3.2	
6 Parkways	83.62		9.6	
53 Triangles	4.24		2.2	
32 Centerstrips	8.33		0.0	
Sub-Total		1542.50		1406.5

   B. School Department

School Playgrounds (Neighborhood)	46.5	
Athletic Fields (City-wide)	9.6	
Existing Plg. to be lost	2.1	
Sub-Total		58.2

   C. City of Buffalo Total 1464.7

2. Semi-Pubic (not counted in Recreation Plan)

   A. Diocese of Buffalo Schools

Elementary School Playgrounds	28.1	
High School Playfields	22.5	
Affiliated Schools Playgrounds	6.1	
Sub-Total		56.7

   B. Private Schools (Playgrounds) 11.1

   C. Colleges and University (Athletic Fields) 24.8

   D. Niagara Frontier Port Authority (NFTA) Small Boat Harbor 65.6

   E. Semi-Pubic Total 158.2

3. Public and Semi-Public Total 1622.9

* See Appendix C for explanation

APPENDIX D - Continued

Statistical Summary of the Recreation Plan

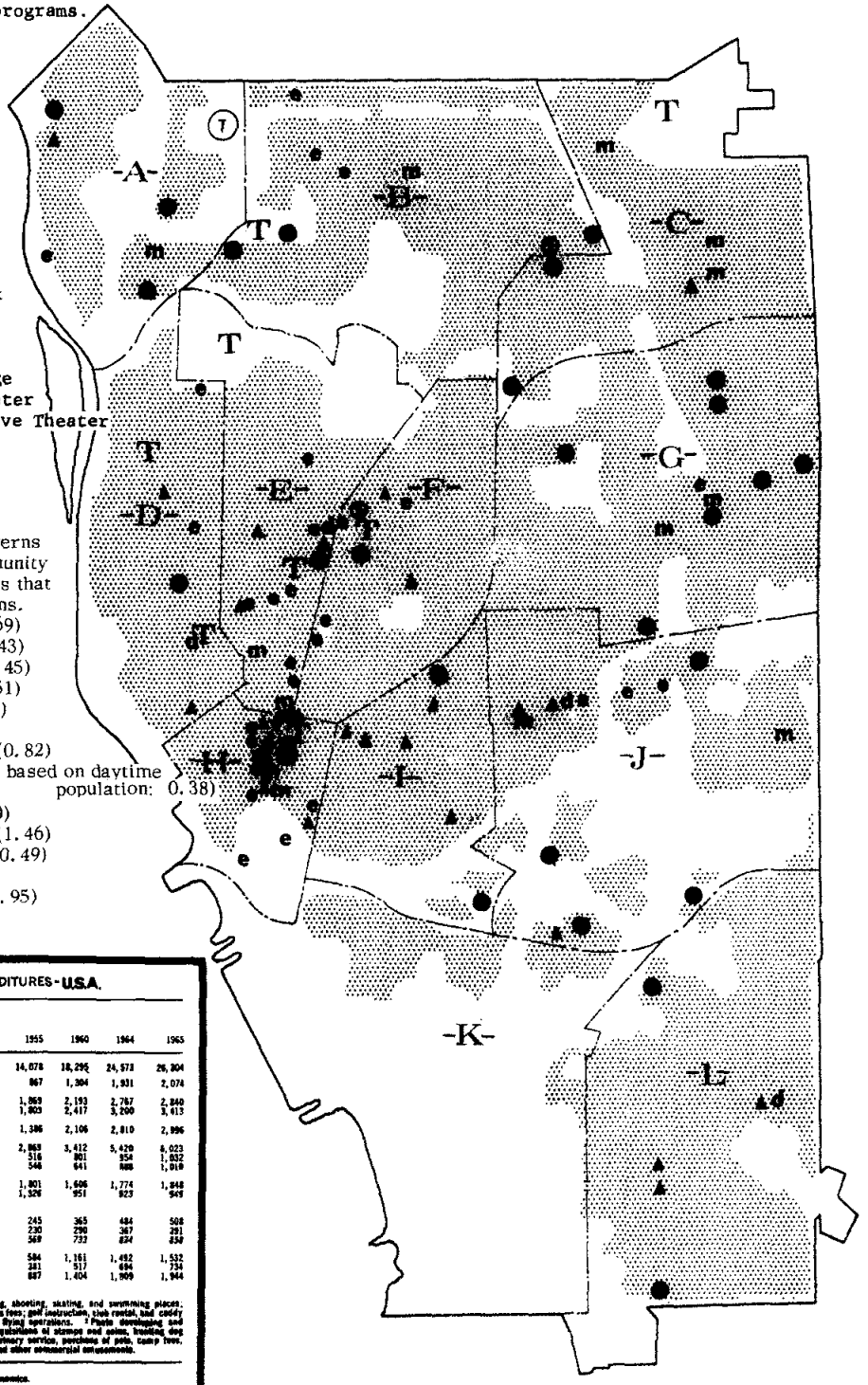
COMPONENTS OF PLAN	Acres	Percent of Total
1. Neighborhood (Goal: 750 acres)		
Existing Neighborhood Acreage	327.4	44%
(Existing Playground Acreage 218.2a)		
Phase I additional acreage	207.5	27%
Phase II additional acreage	216.2	29%
Total	751.1	
2. Community (Goal: 750 acres)		
Existing Community Acreage	475.1	63%
(Playfields: 282.7a; 56%		
Parks: 192.4a; 78%)		
Additional Required Acreage	273.9	37%
(Playfields: 218.8a; 44%		
Parks: 55.1a; 22%)		
Total	749.0	
(Playfields: 501.5a		
Parks: 247.5a)		
3. City-Wide (Goal: 750 acres)		
Existing City-Wide acreage	648.5	86%
Additional Required Acreage	101.5	14%
Total	750.0	
PLAN TOTALS (Goal: 2250 acres)		
Existing Recreation & Open Space Acreage (incl. 13.7 acres to be lost: 1464.7)	1451.0	65%
Additional Required Acreage	799.1	35%
Total	2250.1	

Note: Exact figures do not occur due to the rounding of population to hundreds and acreage to tenths of an acre.

APPENDIX E - COMMERCIAL RECREATION

Recreation facilities which are commercial in nature and semi-public activities for which a fee must be paid are listed. The category of "entertainment lounge" includes both facilities where admission is charged for live performances and cocktail lounges where live entertainment is offered regularly. "Motion picture and live theater" indicates a facility that is equipped for, and offers, both these types of entertainment. "Live productions" indicates live musical and theatrical programs.

MAP 4



COMMERCIAL RECREATION

▲ Billiard Parlor
● Bowling Alleys
◎ Roller Skating Rink
(T) Indoor Tennis

d Dance Hall
e Entertainment Lounge
m Motion Picture Theater
t Motion Picture & Live Theater
T Live Productions

COMMUNITIES
Number of bars and taverns is indicated after community name. In parenthesis is that number per 1000 persons.

- A-Riverside - 54 (1.69)
- B-North Buffalo 19 (0.43)
- C-North East - 18 (0.45)
- D-West Side - 28 (0.51)
- E-Elmwood - 12 (0.36)
- F-Masten - 38 (0.76)
- G-East Delavan - 55 (0.82)
- H-Central - 42 (4.66; based on daytime population: 0.38)
- I-Ellicott - 55 (1.62)
- J-East Side - 88 (1.80)
- K-Buffalo River - 19 (1.46)
- L-South Buffalo - 28 (0.49)

CITY TOTAL - 456 (0.95)

PERSONAL RECREATION EXPENDITURES - U.S.A.

In millions of dollars.

Type of product or service	1950	1955	1960	1964	1965
Total	11,147	14,078	18,295	24,573	26,304
Books and maps	674	867	1,304	1,931	2,074
Magazines, newspapers, and sheet music	1,495	1,868	2,193	2,787	2,840
Nondurable toys and sport supplies	1,394	1,803	2,417	3,200	3,413
Wheel goods, sports equip., boats, durable toys, pleasure aircraft	869	1,386	2,106	2,810	2,996
Radio and television receivers, records, and musical instruments	2,421	2,868	3,412	5,420	6,023
Radio and television repair	283	516	801	954	1,032
Flowers, seeds, and potted plants	457	546	641	888	1,010
Admissions to specified spectator amusements	1,781	1,801	1,606	1,774	1,848
Motion picture theaters	1,376	1,326	951	923	949
Legitimate theaters and opera, and entertainments of nonprofit institutions (except athletics)	183	245	365	484	508
Spectator sports	222	230	290	367	391
Clubs and fraternal organizations	462	569	733	824	859
Commercial participant amusements [1]	448	584	1,161	1,482	1,532
Pari-mutuel net receipts	235	281	517	694	734
Other [2]	674	887	1,404	1,909	1,944

[1] Billiard parlors; bowling alleys; dancing, riding, shooting, skating, and swimming places; amusement devices and parks; daily fee golf greens fees; golf instruction, club rental, and caddy fees; sightseeing buses and guides; and private flying operations. [2] Photo developing and printing, photographic studios, collectors' net acquisitions of stamps and coins, hunting dog purchase and training, sports guide service, veterinary service, purchase of pets, camp fees, nonvending coin machine receipts minus payoff, and other nonmercial amusements.

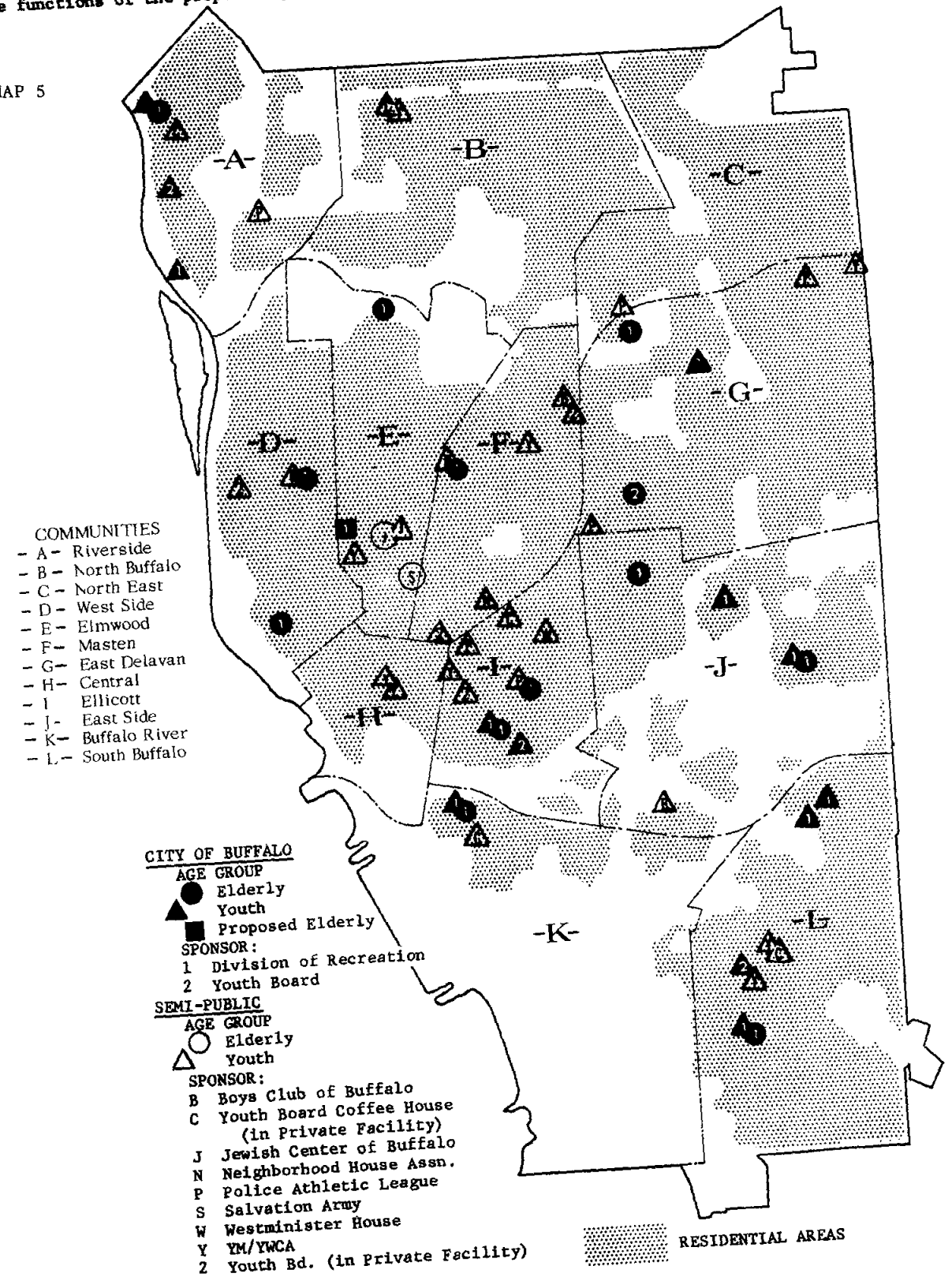
Source: Dept. of Commerce, Office of Business Economics.
Compiled in *Pocket Data Book, USA 1967*.
U. S. Bureau of the Census.

APPENDIX F - AGE CONSIDERATIONS: YOUTH AND ELDERLY

YOUTH AND ELDERLY RECREATION PROGRAMS

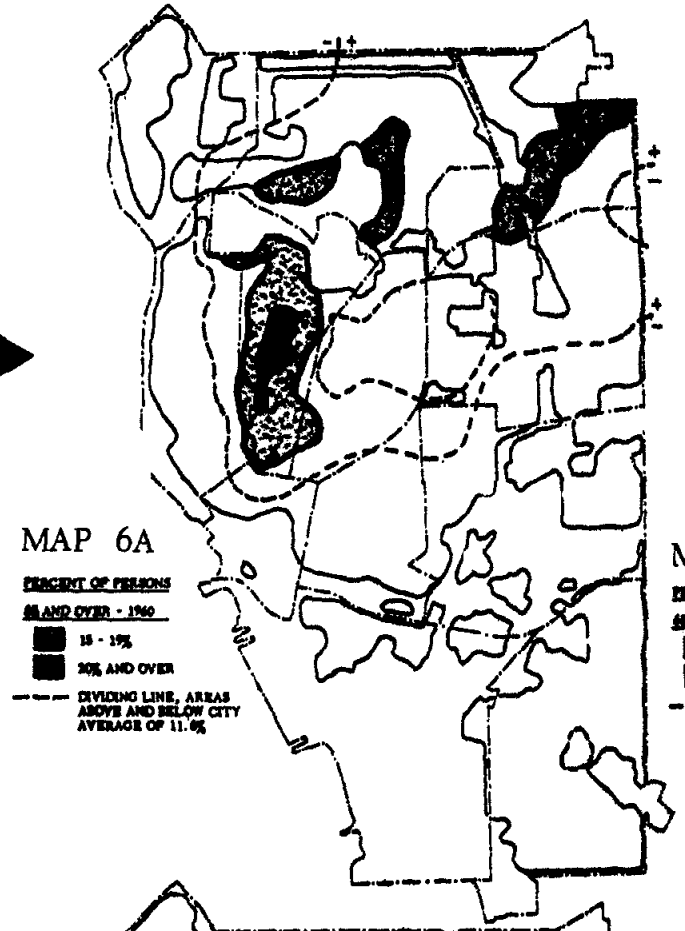
Public programs are primarily indicated. Semi-public facilities are shown when they are open to the general public. Only the recreation aspects of the activities of the Youth Board are indicated. It would be desirable to incorporate recreation programs for the young and the elderly as part of the functions of the proposed system of community recreation centers; see pages 40 to 43.

MAP 5



AGE GROUP PROFILES IN BUFFALO, 1960-1966

Persons 65 and Over



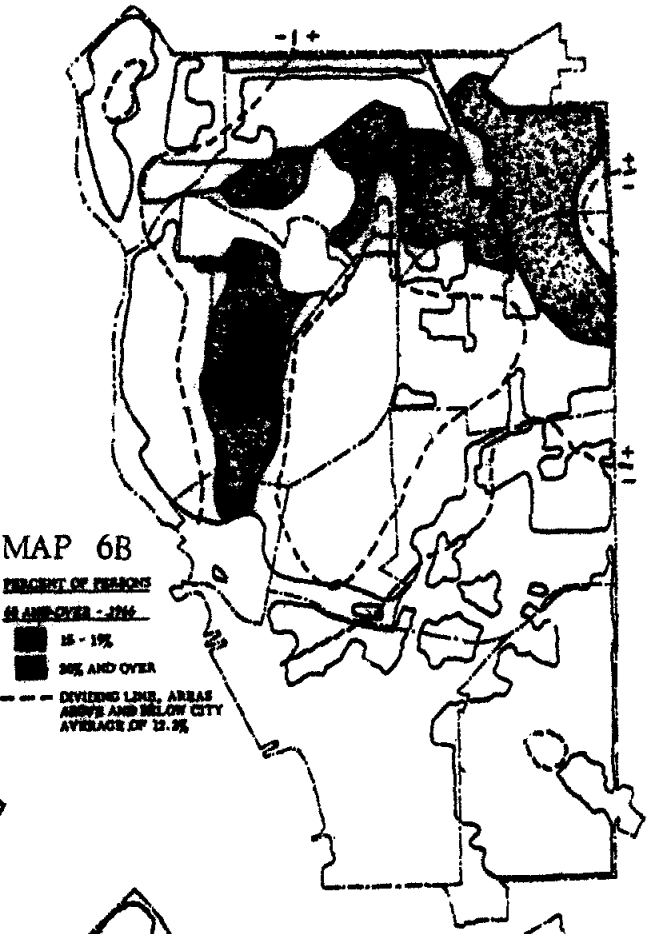
MAP 6A

PERCENT OF PERSONS
65 AND OVER - 1960

15 - 19%

20% AND OVER

DIVIDING LINE, AREAS ABOVE AND BELOW CITY AVERAGE OF 11.6%



MAP 6B

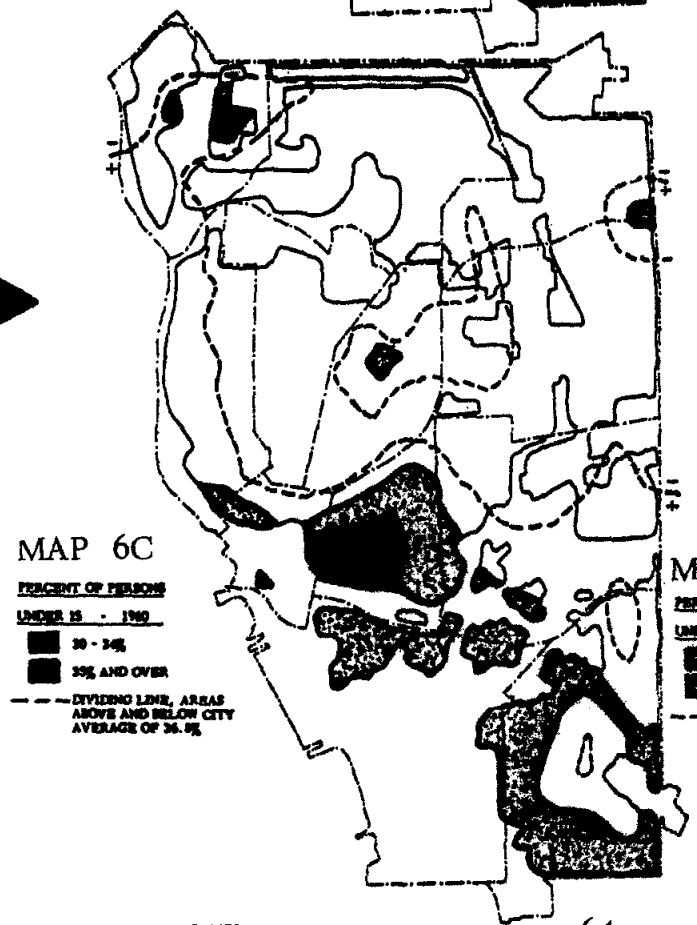
PERCENT OF PERSONS
65 AND OVER - 1966

15 - 19%

20% AND OVER

DIVIDING LINE, AREAS ABOVE AND BELOW CITY AVERAGE OF 12.3%

Persons Under 15



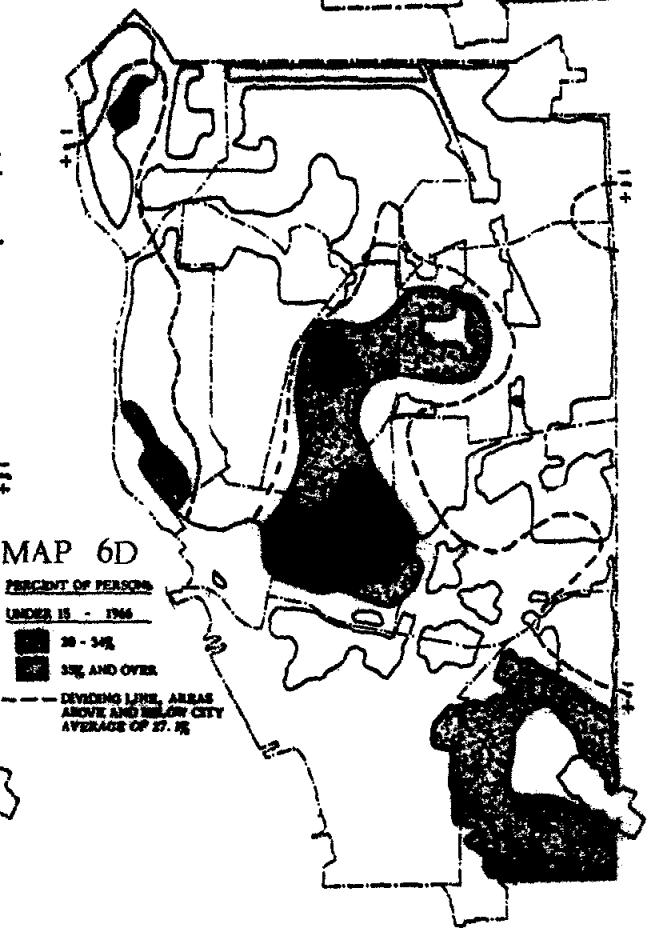
MAP 6C

PERCENT OF PERSONS
UNDER 15 - 1960

30 - 34%

35% AND OVER

DIVIDING LINE, AREAS ABOVE AND BELOW CITY AVERAGE OF 30.8%



MAP 6D

PERCENT OF PERSONS
UNDER 15 - 1966

30 - 34%

35% AND OVER

DIVIDING LINE, AREAS ABOVE AND BELOW CITY AVERAGE OF 27.8%

HEAVY OUTLINE WITHIN CITY BOUNDARIES INDICATES RESIDENTIAL AREAS

As the development of Metropolitan Buffalo, (Erie and Niagara Counties) continues, consideration must be given not only to presently needed recreation facilities, but also to future requirements by reserving open space in areas before development takes place. The reservation of land for open space and as a resource for future parks should be undertaken.

The Master Plan of Erie County proposes that 16,000 acres of flood plain land, which is unsuited for development, should be preserved as open space areas. By restricting development in these areas, future expenses to solve drainage problems would be reduced. At the same time the strip parks of flood plain land would serve as a relief from urban congestion. In many cases the strip parks would connect large parks.

Erie County parks presently contain 7,318 acres. There are 3,000 acres of forest preserves now under county jurisdiction. Long range goals seek the development of 36,300 acres by 1980 and double that by the year 2000. Presently, Erie County has about 13,455 acres (including state facilities) of parks, forest preserves and recreation areas. The goal for 1980 calls for an additional 19,000 acres, including 16,000 acres of flood plain land. Also proposed is a county greenbelt boundary, controlled by zoning and a program of acquisition. This would create a large area not requiring costly water and sewer services. Fourteen county parks exist, are being enlarged, or are planned.

Niagara County presently has approximately 5000 acres of parks and open space (including New York State facilities). It has proposals for an additional 728 acres. The State Department of Transportation has indicated a suggested parkway following the Lake Ontario shoreline.

In the two county area New York State presently has 5,168 acres of parkland and 2,413 acres of forest preserves and game management area. An estimated 875 acres are indicated here as additional State facilities that may be anticipated in the area.

In total the two counties and state park facilities presently constitute 13,059 acres. Proposals would increase that to approximately 16,700 of park land. Other open space facilities now constitute 5,413 acres with proposals increasing that figure greatly to approximately 56,600 acres. A major emphasis has been placed on the provision of open space which will both serve the open space needs of an urbanized population and provides a resource for the provision of future parks as the population demands.

This summary of regional facilities is by nature a quantitative study. The qualitative aspect of the parks and open space provided rests with the county or state agencies which develop them.

EXISTING OR UNDER DEVELOPMENT TOTALS	Acreage
Erie County Parks	7,318
Erie Co. Forest Preserves	3,000
Niagara County Parks	573
New York State Parks	5,168
N.Y.S. Forest Preserves	413
N.Y.S. Game Management Area	2,000
	18,472

PROPOSED	Acreage
Flood Plain Parks	16,000
Greenbelt (Long Range)	35,000
Parks (Proposed on Map)	1,353
Recreation Parkway (Open Space)	250
Parks (Locations Indefinite)	2,300
	54,903

TOTAL PARKS AND OPEN SPACE	Acreage
Parks (Existing: 13,059 a.)	16,712
Other Open Space (Existing: 5,413 a.)	56,663
	73,357

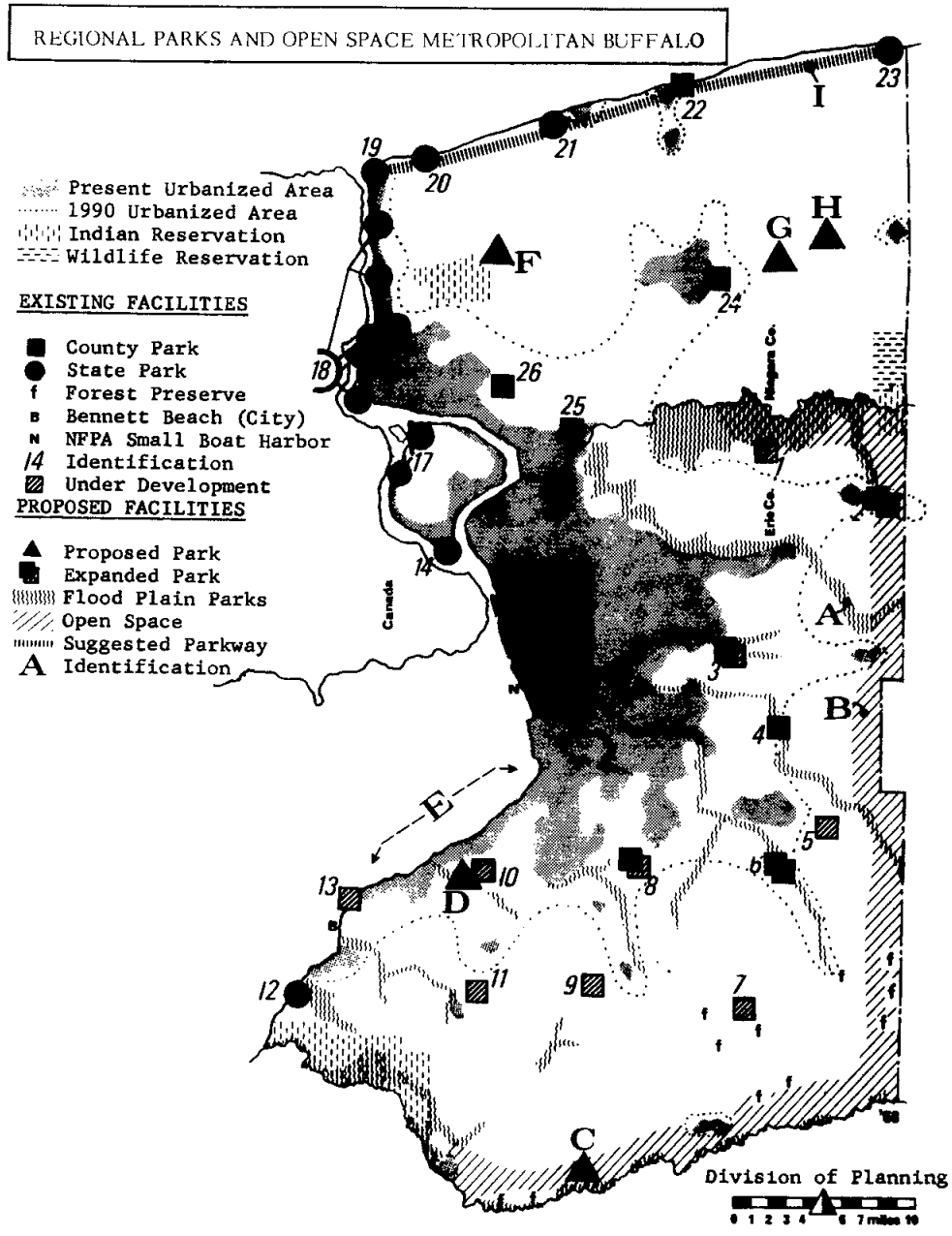
EXISTING OR UNDER DEVELOPMENT

Map Identification	Jurisdiction	Acreage
1 Beeman Creek	Erie County	394
2 Akron Falls	Erie County	277
3 Como	Erie County	534
4 Elma Meadows	Erie County	204
5 Hunters Creek	Erie County	783
6 Emery	Erie County	490
7 Sprague Brook	Erie County	984
8 Chestnut Ridge	Erie County	1453
9 Boston Forest	Erie County	717
10 Eighteen Mile Creek	Erie County	464
11 Larkin Woods	Erie County	650
12 Evangola	New York State	733
13 Sturgeon Point	Erie County	135
14 Beaver Island	New York State	1081
15 Isle View	Erie County	68
16 Ellicott Creek	Erie County	165
17 Buckhorn & 6 Mile Creek (896/ 14)	New York State	910
18 Niagara River Parks (6)	New York State	1286
19 Fort Niagara	New York State	288
20 Four Mile Creek	New York State	238
21 Wilson-Tuscarora	New York State	260
22 Krull	Niagara County	77
23 Golden Hill	New York State	372
24 Niagara Co. Golf Course	Niagara County	375
25 Canal West	Niagara County	26
26 Oppenheim	Niagara County	95

PROPOSED

Map Identification	Estimated Acreage
A Flood Plain Strip Parks	16,000
B Green Belt (Long Range)	35,000
C Zoar Valley	500
D 18 Mile Creek (Exp.)	100
E Marina	25
F Escarpment (Bond's Lake)	547
G Royalton Ravine	156
H Canal East	25
I Suggested Parkway, Open Space	250

REGIONAL PARKS AND OPEN SPACE METROPOLITAN BUFFALO

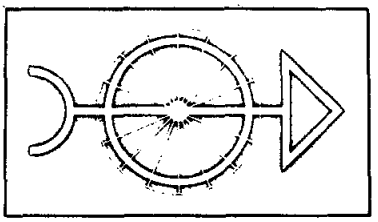


MAP 7

APPENDIX H - STANDARDS FOR OUTDOOR RECREATION FOR THE PHYSICALLY HANDICAPPED

Standards are provided in more detail in OUTDOOR RECREATION FOR THE PHYSICALLY HANDICAPPED, 1967, State of New York, Department of Conservation, State Council of Parks and Outdoor Recreation. The Council regards such standards as a mandate for all future construction seeking state or federal assistance. The symbol indicates facilities made accessible for handicapped persons. This does not preclude the use of the facilities by others.

A desirable goal for the City of Buffalo would be to provide facilities to accommodate at one time 10% of the handicapped persons in the city. This would be approximately 240 persons.



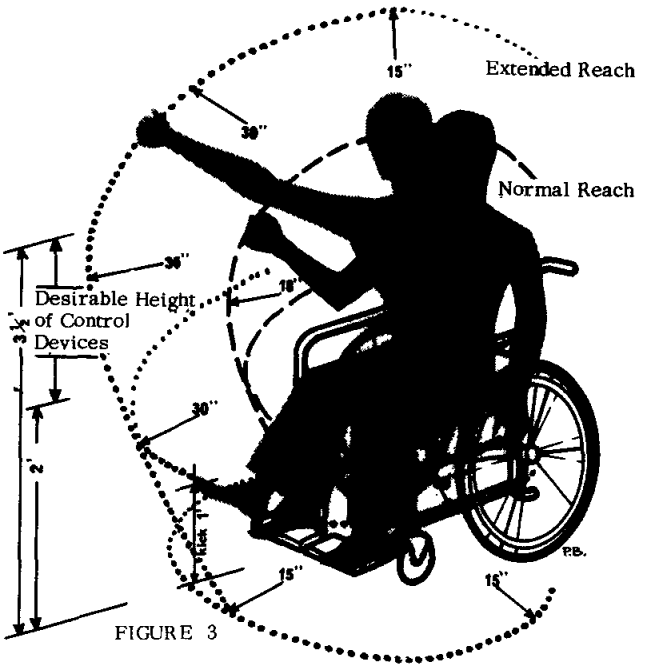


FIGURE 3

Facility	Structure	Dimensions or Size	Design Consideration	Railing (2'8" high with 1'6" Mid rail)
ACCESS:				
Parking	Parking lot (Portion reserved) Non-slip pavement	One space plus 0.5% of total parking area	4 ft. between parking spaces. Avoid wheelchair traffic behind automobiles	30 in. openings in railings
Turn-Around	Paved Drive (to loading points) Non-slip pavement	37.5 ft. min. radius for auto turning	Waiting area adjacent for disabled to exit & enter autos without blocking traffic	--
Paths	Walk. Non-ship pavement with contrasting material at edge	Min. 48" wide or 6 to 10' for 2-way traffic	Expansion joints minimized. Cross walks should be at grade	Railings in areas of danger
Ramps	Path or bridge structure Non-slip material, 2" curbs 4" wide	37" between rails or 72" for 2-way traffic	Grade: 5% preferred, maximum of 8.33% (1':12') Level rest areas at 30 ft. intervals	32" high, offset 2" from a wall, at least 1' beyond grade
DOORS, CONCESSION STANDS, TELEPHONES, LAVATORIES, DRINKING FOUNTAINS:	--	See Diagram	Designed with disabled and wheelchair reach considered	--
ACTIVITIES:				
(Partial List) Swimming Pool	Recessed area at shallow end of pool w/ sitting steps 5.75" high, 1'2.5" wide	Recessed area approx. 8' x 12' from side into shallow end	Area set aside next to pool for storage of equipment	Sloping handrail along steps
Spectator Areas	Sheltered benches on firm or paved surface	--	Located close to sport field without visual obstruction	Rails to assist seating on benches
Picnicking Areas	Table and raised fireplace on firm surface	--	Within 300 ft. of comfort station and drinking fountain	--
Boating Areas	Docks or piers w/ safety rails & ramps or gang planks w/ rails & batters Non-slip material	--	--	Railing in all areas of danger
Fishing Areas	Paved area, non-slip	--	Access paths should be provided with turn-around rm.	Protective railing along banks
Scenic Paths	Alteration of existing paths	4 to 10 feet wide	Level rest areas at areas of exertion & spaced 30 ft. on long slopes	Railing in areas of danger
Golf putting, Tetherball, Basketball hoops, Game tables	As required on firm surface	--	Facilities built w/ handicapped limitations in mind	--

APPENDIX I - PEDESTRIAN WAYS

In Buffalo the population density is relatively high. Automobile traffic dominates the street. A consideration in providing recreation facilities is access to the area, especially by children. The pedestrian ways suggested in this report represent an attempt to provide routes designated primarily as walkways with automobile movement taking a secondary role.

The simplest walkway would consist of no more than a street of low automobile volume with stop signs at all intersections. Street lighting and tree planting could be emphasized on these streets. Future elaboration could involve, upon repaving of the street, a narrowing of the automobile portion and the widening of one side of the sidewalk area to further improve the pedestrian way. When possible a second sidewalk on that side could be provided and reserved for bicycle riders. Where closeness to the street pavement cannot be avoided, a railing to keep automobiles from intruding into the pedestrian area would be advisable. Maintenance along the route of such pedestrian ways would be assisted by adjacent property owners just as they are now expected to maintain grass areas of city street rights-of-way. Maintenance would also be provided by the various departments of city government.

Where large institutions are located in a desirable path, cooperation would be sought to enable the pedestrian way to pass through their property as a civic venture. This would further separate pedestrians from automobile traffic.

When new arterials or expressways are built, the provision of pedestrian ways should be considered early in the planning stages.

Acquisition of land to widen such walkways or provide entirely new rights-of-way would be considered as part of a particular neighborhood's recreational acreage assignment.

The complete prohibition of automobile traffic from an existing street, where feasible, would constitute a maximum emphasis of a pedestrian facility. An illustration of this type of facility is on the following page.

The proposed subdivision ordinance of the city enables the planning of such walks or "crosswalks" through an area which would fall under the jurisdiction of that ordinance. The "crosswalk" is defined as a strip of land dedicated for public use which is reserved across a block for the purpose of providing pedestrian access to adjacent areas.

Besides providing safer movement for children, such pedestrian walkways would assist in physically tying various community facilities together. Housewives may well use such a walk for shopping purposes. Besides city policing of the walk areas, it would be hoped that civic-minded persons also would use the walk area to concentrate casual supervision on the areas. This physical element would serve as a neighborhood social focal point which could assist in fostering a greater sense of community spirit. The open space provided by pedestrian ways not parallel to streets would also become an element of relief in the city-scape.

In old neighborhoods, city interest in providing and preparing such pedestrian ways could also serve as a catalyst to improve private property in a neighborhood and to dispel the notion that the city's housing resources are on a pre-destined downhill course.

While the safe movement of pedestrians, especially children, the neighborhood pedestrian walk could assist in the development of a sense of community as well as stimulating the rehabilitation of private property.

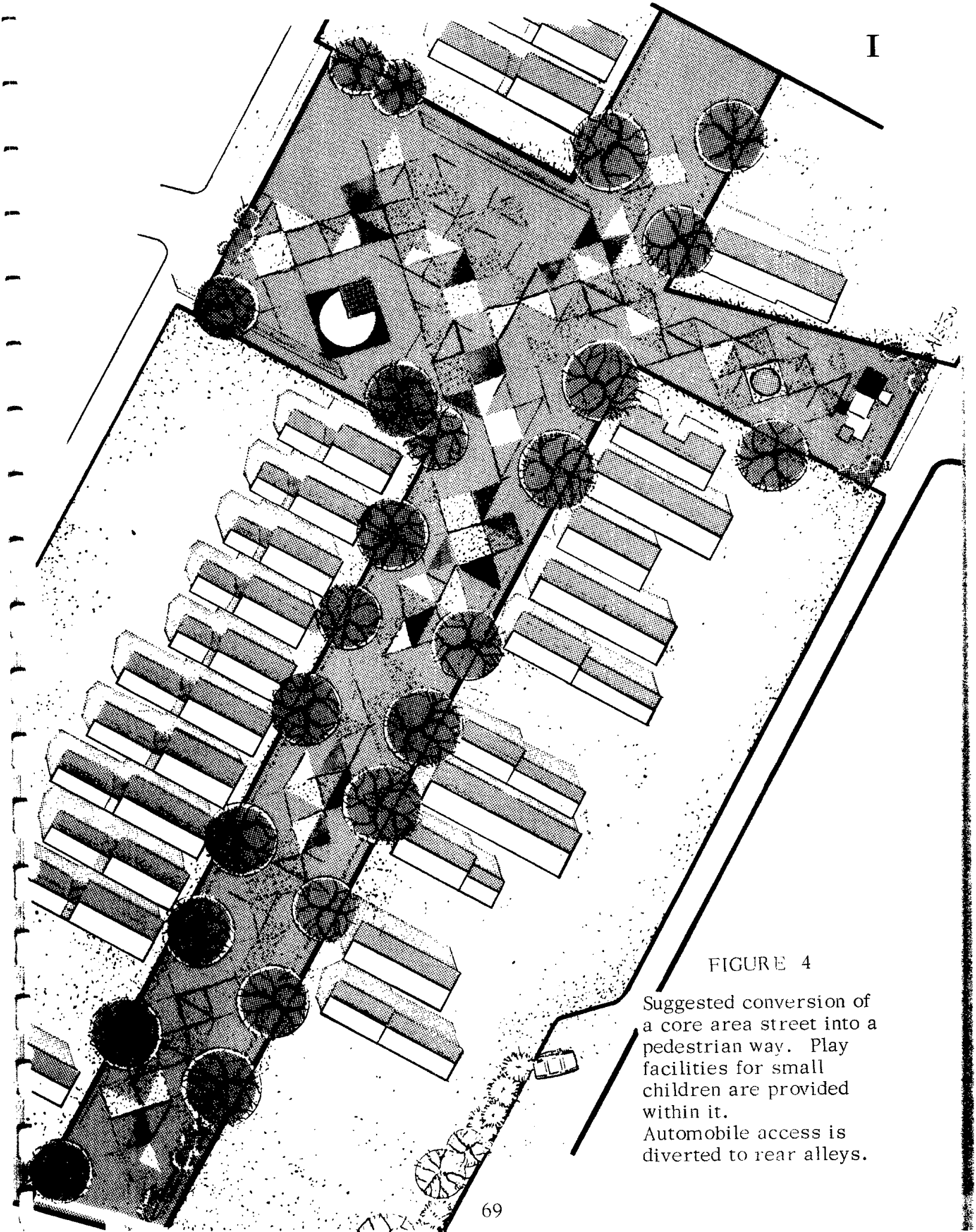


FIGURE 4

Suggested conversion of a core area street into a pedestrian way. Play facilities for small children are provided within it. Automobile access is diverted to rear alleys.

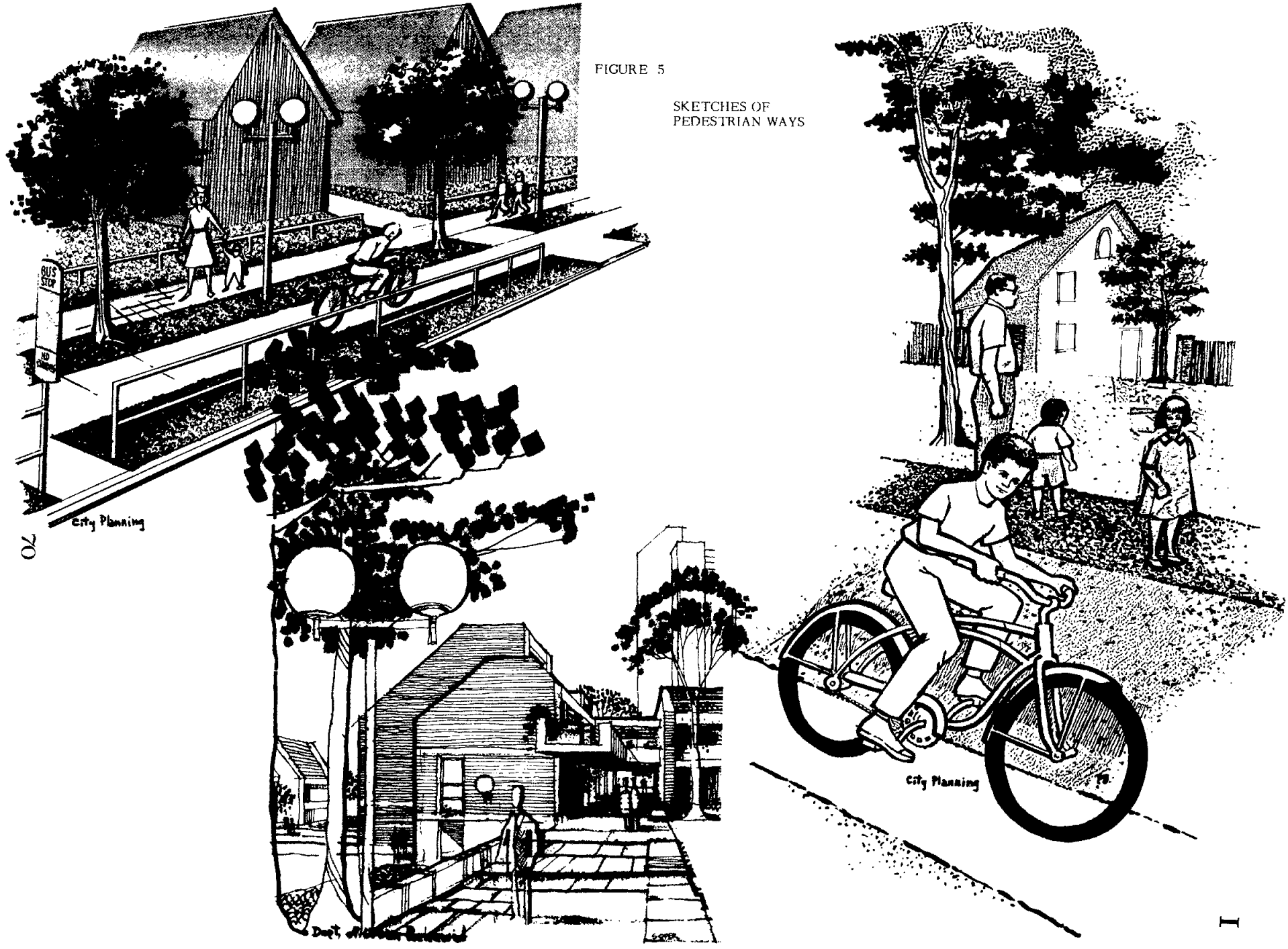


FIGURE 5

SKETCHES OF
PEDESTRIAN WAYS

APPENDIX J - SUGGESTED PRIORITY

To establish a system of priority, attention was first given to the neighborhoods lacking two-thirds of the Phase One goal. These are indicated with a double asterisk in Table III. In addition to this lack of neighborhood facilities, consideration was also given to the lack of community recreation facilities in which the neighborhood exists. A desire to emphasize the need of the youth of the City (those under twenty years of age), and particularly the youth living in densely populated areas, created a statistical evaluation of the existing situation.

In the following table, the final decimal figure indicates neighborhood and community deficiencies related to the density of population of those under twenty years of age as indicated by the 1966 Census. The .1068 figure of the Johnson Neighborhood represents the need of a unit of a thousand persons under twenty per acre using the total recreational acreage deficiency of the first column, 0.8 / 1.6 (or 2.4) acres per thousand persons of that neighborhood.

Thus, the rating considers not only the total acreage deficiency, nor only the deficiency per thousand, but presents the deficiency as modified by the number of persons under twenty and their density per acre in a particular neighborhood.

Neighborhood (with neighborhood & community deficiencies per 1000)	Density per acre X community % under 20 = Density of persons under 20 per acre	Total Deficiency X density of persons under 20 per acre (per thousand unit)	Deficiency Rating
Johnson (0.8 / 1.6)	101.0 x 43.8 : 44.2	.10608	1
Cold Spring (1.0 / 0.6)	110.3 x 42.3 : 46.7	.07472	2
Broadway-Fillmore (1.0 / 1.2)	98.0 x 33.1 : 32.1	.07062	3
Pullman (1.0 / 1.2)	89.7 x 33.1 : 29.7	.06534	4
Peckham (1.0 / 1.2)	87.8 x 33.1 : 29.1	.06402	5
Onieda (0.9 / 1.2)	83.3 x 33.1 : 27.6	.05796	6
Mills (0.8 / 1.2)	87.4 x 33.1 : 28.9	.05780	7
Hamlin Park (0.9 / 0.6)	63.6 x 42.3 : 26.9	.04035	8
Kingsley (0.8 / 0.6)	67.8 x 42.3 : 28.7	.04018	9
Grant-Ferry (0.9 / 0.6)	71.4 x 35.1 : 26.1	.03915	10
Dingens (1.0 / 1.2)	50.0 x 33.1 : 16.6	.03652	11
Kenfield (0.9 / 0.6)	46.9 x 33.6 : 15.8	.02370	12
LaSalle (0.9 / 0.5)	41.0 x 35.1 : 14.4	.02016	13
Allen (0.7 / 0.0)	94.5 x 25.7 : 24.3	.01701	14
North Park (1.0 / 0.0)	45.6 x 31.9 : 14.5	.01450	15
Bryant (0.9 / 0.0)	58.1 x 25.7 : 14.9	.01341	16
Cleveland (0.8 / 0.0)	53.9 x 25.7 : 13.9	.01112	17

The following neighborhoods rank next highest on the listing of deficiences and presently lack one-third or more of the Phase One goals. (These are indicated by a single asterisk on Table III.) They are listed by community in order of deficiency. Since the time element for the provision of these facilities would be greater, the 1966 Census age figures are not presented.

18. Willert Park, Emslie Neighborhoods-(ELLICOTT COMMUNITY)
19. Person Neighborhood-(EAST SIDE COMMUNITY)
20. Masten Park, Fruit Belt Neighborhoods-(MASTEN COMMUNITY)
21. Forest Neighborhood-(WEST SIDE COMMUNITY)
22. Humboldt Park, Walden-Bailey Neighborhoods-(EAST DELAVAN COMMUNITY)
23. University Neighborhood-(NORTH EAST COMMUNITY)
24. Black Rock, Upper Black Rock Neighborhoods-(RIVERSIDE COMMUNITY)
25. North Delaware Neighborhood-(NORTH BUFFALO COMMUNITY)

APPENDIX K - MODIFICATION OF SITE LOCATIONS

The suggested site locations are those which seem to be the most satisfactory at the present time considering a number of factors. Since a program to provide the facilities is of a long-range nature, the considerations involved in acquiring a site in the future no doubt will be modified.

The primary consideration in planning neighborhood facilities is to provide sites within easy access of pedestrians, especially children under fifteen years of age. In doing this a uniform spacing throughout the city was sought. If a site location is changed, other proposed sites surrounding the former may also have to be adjusted.

Where walking-distance considerations permitted, a proposed site may have been suggested in an easily acquired location in an area of substandard structures, or on a site which could serve as a buffer between residential and non-residential uses.

The planning for a long-range network of recreation facilities throughout the city requires that the Division of Planning prepare proposals that may be subject to change when a particular site is to be developed. The final selection of a site for acquisition is a legislative matter. The development of the selected site is a responsibility of the Department of Parks. This report is prepared to acquaint all parties, public and private, with detailed information on the inventory of existing facilities, standards, and proposed site locations as a part of a comprehensive recreation plan for the entire city.

The recreation requirements in an Urban Renewal area should be considered as the total requirements (Phase One and Phase Two) of the NEIGHBORHOOD RECREATION PLAN, so that land may be dedicated for such use before used for other purposes.

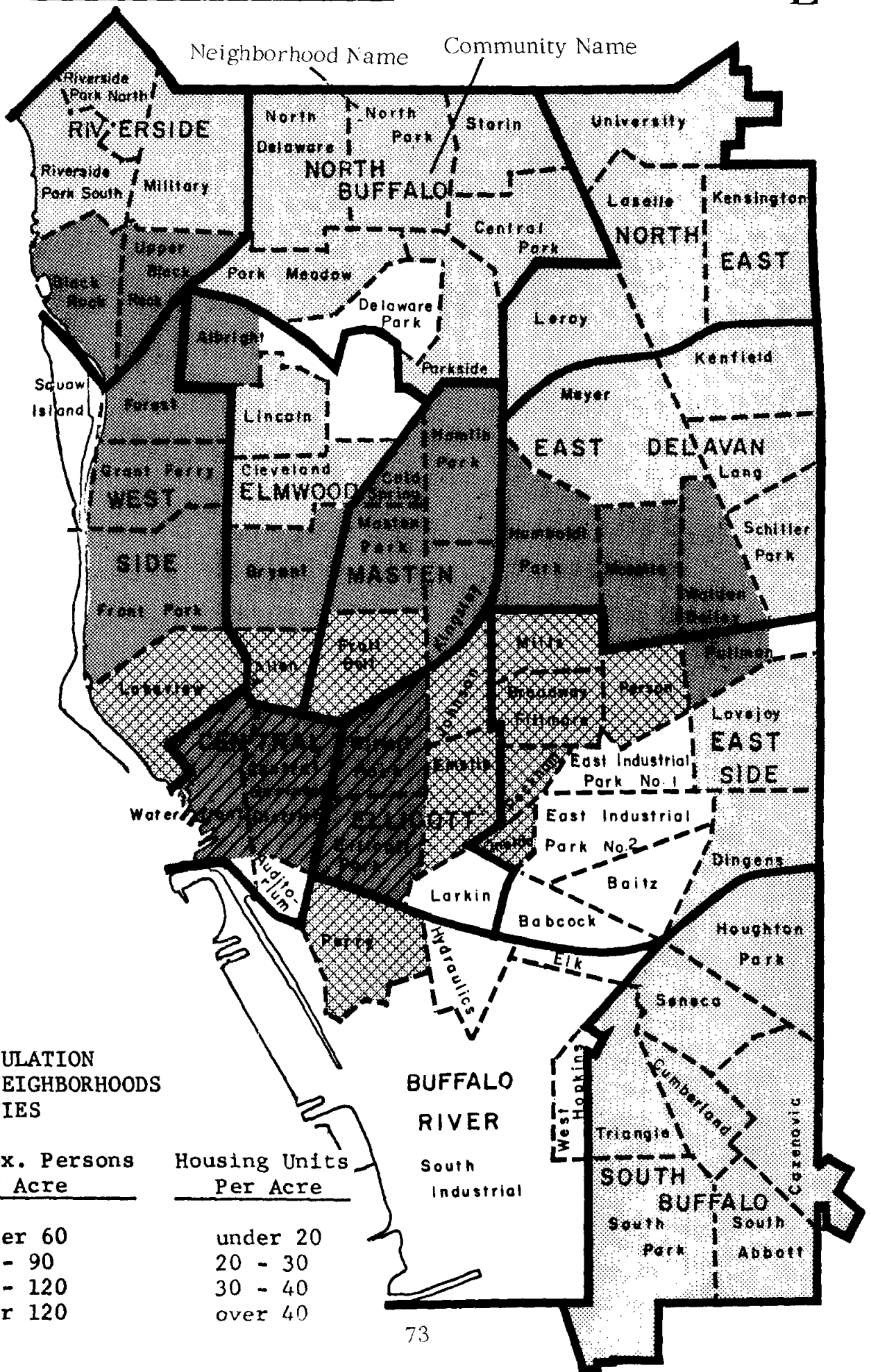
A large scale residential development of higher population density than anticipated can be required, under the city's proposed subdivision ordinance,to provide additional recreation acreage to meet the deficiency that would be created.

If a conflict arises between a proposed recreation site and a development of a non-recreation nature, the situation would have to be examined to determine the course of action to be taken and whether the recreation plan should be altered. The plan should not be used to prevent new housing units to be built to improve the city's housing inventory. It is hoped that the provision of recreation acreage would, in fact, encourage new residential developments around them.

The neighborhood requirements in terms of population may also be modified in the future. However, it is not recommended to change the planning population of a particular neighborhood on which the requirements are now based without detailed study on permanent changes. Fluctuations may be expected from census to census in terms of population and change in planning populations should not be based solely on those figures.

Any loss in existing recreation acreage that is proposed for another use should also be carefully studied and immediate replacement considered. The City of Buffalo should not be interested only in replacement of actual facilities or structures but also in equal acreage.

Neighborhood groups and individuals may participate in planning a specific recreation site in their neighborhood. The "suggested locations" of this report are by no means specific or final designations, but they are necessary elements in preparing a comprehensive plan for the entire city. Such an approach is necessary in order to treat all citizens fairly in a distribution pattern of recreation facilities.



MAP 8

PROPOSED POPULATION DENSITY BY NEIGHBORHOODS AND COMMUNITIES

	Approx. Persons Per Acre	Housing Units Per Acre
	under 60	under 20
	60 - 90	20 - 30
	90 - 120	30 - 40
	over 120	over 40

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ILLUSTRATIVE MATERIAL

COMMERCIAL PLAN

BUFFALO MASTER PLAN
Chapter VI

COMMERCIAL PLAN

OBJECTIVES

The Commercial Plan has, as a major consideration, the concentration of commercial retail centers within the city. This is proposed to serve as a means of increasing their attractiveness and efficiency. The specialized function of the Central Business District should be strengthened. This district now supplies nearly a quarter of the property taxes for the city and is a valuable asset in carrying out the city's programs.

POLICIES

The policies of the master plan provide a flexible guide. Periodic review and evaluation are required to consider changing factors. The policies establish a perspective to relate immediate decisions with future implications in the light of overall goals of the city. Specific commercial policies follow:

1. Concentration of commercial retail centers in the city. This is to serve as a means of increasing their attractiveness and efficiency.

2. Removal of substandard facilities - Obsolete and deteriorating commercial structures should be rehabilitated or cleared. Improved environment should be sought for existing uses as well as for new facilities.

3. Encourage commercial developments - In order to supply employment opportunities and to increase the city's tax base to assist in providing revenue for other programs, commercial uses will be encouraged to build or to expand in keeping with the proposals of the master plan.

4. Improve the central business district - As a major revenue source, and one of even greater potential, the central business district should continue to be improved. Its environment and circulation system should offer a unique setting in the region.

5. Concentrate related uses - Commercial uses which are related in function should be encouraged to develop in close proximity to one another.

6. Buffers should be provided between incompatible uses - Buffers should be established between incompatible residential and commercial uses.

Major innovations in the methods of goods and food processing, distribution and merchandising have revolutionized the retailing system. These innovations require basic adjustments in the distribution of commercial activities throughout the City of Buffalo.

Four major concepts guided the development of the commercial land use plan.

Improve the efficiency of the commercial system through consolidative land use policies.

Improve the efficiency of the commercial system by distinguishing the functions of differing types of shopping areas.

Improve the retailing capabilities of the commercial system by locating higher density residential areas in proximity to regional and community shopping areas.

Improve the retailing capabilities of the commercial system by creating easy accessibility and increasing the off-street parking facilities.

The study of commercial land use is closely related to studies of population and residential densities. The results of the land use survey of the 1964 Master Plan indicated there were 1570 acres of commercial land in the city. Through 1970 this acreage increased by 37 acres despite the fact that the city's population declined by some 44, 000 between 1963 and 1970.. The acreage cited includes many vacant stores. Relating this figure to people, there exists 3. 5 acres of commercial land for every one thousand persons in the city. As will be seen, the present need for commercial land more nearly approaches 2.3 acres per thousand persons. An analysis of the commercial land use and its relationship to the population of the City of Buffalo is required.

The procedure for the study of commercial land use was as follows:

Existing land use acreages for commercial areas were analyzed.

Existing and projected income of the city and the metropolitan area had to be obtained.

Land use requirements for commercial space were studied and projections then made regarding future requirements for commercial space.

Supplementing the projected commercial space requirements is the plan for the distribution of future commercial centers throughout the city.

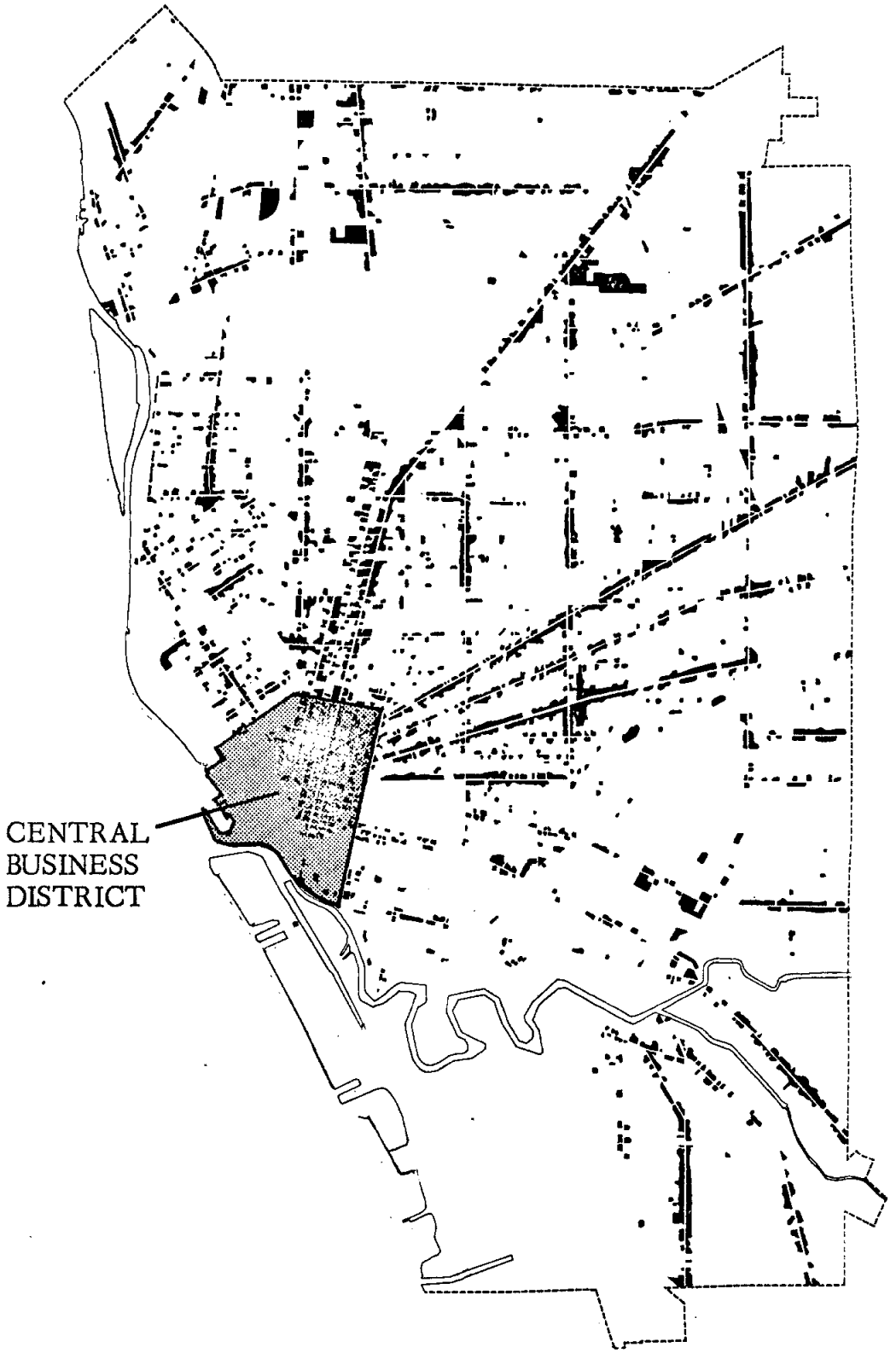


FIGURE I - EXISTING COMMERCIAL LAND USE, CITY OF BUFFALO

EXISTING COMMERCIAL LAND USE ACREAGE - The existing acreage of commercial facilities by community is included in Table A-1 in Appendix A. Throughout the city's twelve planning communities, the predominance of neighborhood shopping facilities is obvious. Generally neighborhood shopping areas are not as concentrated as the larger shopping facilities.

The relationship between commercial facilities and their orientation to streets is quite apparent, particularly along major thoroughfares such as Bailey and Broadway Avenues, and Genesee and Main Streets. Figure 1 indicates that the consolidation of some of the commercial facilities could provide a more efficient commercial system. The first two concepts stated earlier calling for consolidative land use policies and an improvement in the efficiency of the commercial system are feasible in the light of the existing pattern of commercial land use.

DETERMINING COMMERCIAL SPACE NEEDS - There have been a number of methods and standards developed for determining the acreage required for commercial land use. Rote methods of commercial land calculations, though generally reliable, usually do not compensate for conditions which might vary from one area of the country to another. Such conditions include:

Income and Spending Patterns

Potential Purchasing Power

Dollar Volume of Sales (per gross square foot)

Parking Requirements and "Extras"

The number of square feet of floor space required to serve a particular area was determined from the first three items. Once this had been determined, space for parking, loading and landscaping was added.

Incomes are important in determining commercial space needs in that they indicate potential purchasing power. Table 1 indicates that personal income for the metropolitan area rose from $4,420,000,000 in 1967 to approximately $5,400,000,000 in 1970. The estimated total personal income projected to 1990 is $8,300,000,000 for the metropolitan area.

Per capita income of metropolitan residents in 1950 was approximately $2,408. The estimated figure for 1970 is about $4,000, representing a gain of $1592. (This gain is stated in terms of real purchasing power which does not contain an inflationary factor). The bulk of the income increase took place after 1960. The improvement in relative wealth established the basis to expand service-producing functions. The anticipated upward trend in real per capita income will be a significant factor generating a new demand for various service activities. It is expected that the real per capita income will rise from a level of approximately $4,000 to $5,005 in 1990. This represents a gain of about $1,005 per capita during the projection period. In terms of aggregate income, these projections indicate an overall gain for the metropolitan area of about $2,872,000,000 from 1970 to 1990. The trend for

TABLE 1 - POPULATION, INCOME AND RETAIL SALES, BUFFALO SMSA

	1963	1967	1970 Estimated	1975 Projected	1980	1990
POPULATION (In Thousands)	1,312	1,320	1,349	1,421	1,486	1,652
PER CAPITA INCOME	$2,566	$3,313	$4,000	$4,310	$4,453	$5,005
TOTAL PERSONAL INCOME (In Millions)	$3,366	$4,373	$5,396	$6,125	$6,617	$8,268
TOTAL RETAIL SALES (In Millions)	$1,647	$2,006	$2,428	$2,726	$2,962	$3,555

TABLE 2 - CITY OF BUFFALO ECONOMIC INDICES

	1954	1958	1963	1967
CITY - All Retail Sales	100	98	86	97
CITY - All Retail Sales, Less C.B.D.	100	99	96	109
CITY POPULATION	100	96	91	86
SMSA - All Retail Sales	100	110	121	147
CBD Comparison Goods Sales	100	92	82	94
SMSA - Total Personal Income	100	124	160	211

metropolitan Buffalo is shown in Table 1.

Due to the development anticipated in the transportation network nodes, along the Main Street Corridor in Buffalo, significant changes are apt to be produced in central Buffalo's level of income. Central Buffalo's increase also should be greater percentage-wise than the metropolitan average in existing low income areas.

Table 2 presents economic indices for the city using 1954 as the base year. In the city retail sales in 1963 compared to 1954 in the city declined to 86. In 1967 this index increased to 97 but this should be modified by noting the SMSA increase to 147 in 1967. City sales less Central Business District sales did not decrease to the extent of all city sales and reached 109 by 1967. In comparison to the city population index, sales in the city did not drop to the extent of population loss, indexed at 86 in 1967. The Central Business District comparison goods sales, at 82, did drop below the population decline index for the city in 1963. By 1967 this index rose to 94.

Table 3 presents percentage figures relating the above to total SMSA figures for 1954, 1958, 1963 and 1967. The dollar sales indices based on the year 1954 do not indicate the decline percentagewise to total SMSA activity. The decline of city sales has been great as new shopping facilities opened throughout the metropolitan area. It should be noted that city sales, less Central Business District sales, have not experienced as great a decline. This sector did not experience as great a loss since there is a greater dependence on convenience shopping than on comparison goods shopping in most commercial areas in the city outside the central business district.

This section of the commercial plan will concentrate on those areas of the city outside the central business district, which will be treated separately. Older shopping areas in the city, usually of a shoestring nature along a main thoroughfare, found business being attracted away from them. A combination of more attractive structures, the convenience of groupings of stores and ample parking facilities have been physical attractions that caused a decline in city sales. This was particularly true in the area of comparison goods sales.

Table 1 presented a projection of total retail sales in the metropolitan area. How this will affect the area of the city outside the central business district will be developed. Income, it was assumed, will increase at a compound rate of 1.5% per year until 1975 and 1.0% per year thereafter. The projections reflect continuing increases in real income but exclude inflationary factors. The dollar amounts will thus understate sales dollars as they will occur in the future, but they are necessary as a guide for estimating retail space.

Table 4 indicates the distribution by percent of retail sales in the metropolitan area in 1958, 1963 and 1967. Table 5 shows the distribution by percent for the city, less the central business district, and it includes a projection for 1990 by percent which is converted into dollars. The importance of convenience shopping within the city is indicated by its higher percentage, and it is projected to remain at a higher level than the metropolitan figure. A slight decline in that figure is made,

TABLE 3 - CITY OF BUFFALO RETAIL SALES AS A PERCENT OF SMSA

	1954	1958	1963	1967
CITY - All Retail Sales	58.4%	52.1%	41.7%	38.6%
CITY - All Retail Sales, Less C.B.D.	43.1%	38.9%	34.3%	31.8%

TABLE 4 - DISTRIBUTION OF RETAIL SALES, IN PERCENT, SMSA

	1958	1963	1967
CONVENIENCE			
Foods, Drugs and Proprietary, Eating and Drinking	39.8	38.8	38.0
COMPARISON SHOPPING			
General Merchandise, Apparel, Furniture	25.0	24.8	28.1
FREESTANDING			
Automobile Dealers, Gas Stations, Building Materials	28.4	29.9	27.8
OTHER RETAIL	06.8	06.5	06.1
TOTAL RETAIL SALES	100.0	100.0	100.0

TABLE 5 - DISTRIBUTION OF RETAIL SALES, CITY LESS C.B.D.

	1963 Percent	1967 Percent	1990 Percent	1990 Dollars, in Millions
CONVENIENCE				
Foods, Drugs and Proprietary, Eating and Drinking	42.6	42.4	40.0	427
COMPARISON SHOPPING				
General Merchandise, Apparel, Furniture	17.2	22.0	25.0	267
FREESTANDING				
Automobile Dealers, Gas Stations, Building Materials	34.5	29.5	27.0	288
OTHER RETAIL	05.7	06.1	08.0	85
TOTAL RETAIL SALES	100.0	100.0	100.0	1067

TABLE 6 - SELECTED SERVICES RECEIPTS
In Millions of Dollars

	1954		1958		1963		1967	
	SMSA	CITY	SMSA	CITY	SMSA	CITY	SMSA	CITY
Personal, Business	93	67	111	80	141	81	184	108
Repairs, Auto	24	17	39	26	49	31	64	37
Hotel, Recreation	54	37	59	36	68	33	75	36
TOTAL	171	121	209	142	258	145	323	181
Indices	100	100	122	117	151	120	189	150

TABLE 7 - DISTRIBUTION OF SELECTED SERVICES RECEIPTS IN PERCENT

	1958		1963		1967		1990	
	SMSA	CITY	SMSA	CITY	SMSA	CITY	SMSA	CITY
Personal, Business	53	56	55	56	57	60	58	61
Repairs, Auto	19	18	19	21	20	20	20	18
Hotel, Recreation	28	25	26	23	23	20	22	21
TOTAL	100	100	100	100	100	100	100	100

however, and this is joined by a decline in freestanding sales. Thus increases are made in comparison shopping and other retail categories. The city population is anticipated to drop to about 30.2 percent of the metropolitan population by 1990. The projection establishes 30.0 percent of the SMSA retail sales to be made in the city. This would build upon the strong convenience shopping base that exists and hopefully attract some gains in other categories by providing more convenient and attractive commercial facilities. The 1967 retail sales in the city outside the C.B.D. amounted to 31.8% of metropolitan retail sales.

Selected services are anticipated to increase slightly in percent spent for them from personal income; this will increase the amount of dollars significantly. Receipts from selected services were calculated as increasing 0.2% by five year intervals, raising the 1990 figure to 8.4%. It is unlikely that a steady increase will take place and annual fluctuations may be anticipated but the overall increase should approximate the figure indicated for 1990. Table 6 reviews selected services receipts for the metropolitan area and the city for 1954, 1958, 1963 and 1967. The city proper has a much more favorable position in selected services as indicated in the indices on this table as compared with the indices for retail activity on Table 2. The indices for selected services also have reached a higher level for both the city and the metropolitan area than that of retail activity. The dollar amounts are much smaller for services than retail however.

Table 7 presents the distribution of selected services receipts for the metroplitan area and the city as a percent within the area involved. The figures for 1958, 1963, and 1967 are presented and a projection of distrubution in 1990 is made. Within the city, increases in percent of distributions are indicated for personal and business services and for hotel and recreation. A decline in the percent for repairs and automobile service is indicated within the city.

Table 8 presents selected services receipts of the city in terms of a percentage of the metropolitan area receipts for 1958, 1963, and 1967. A projection of the city as a percent of the metropolitan area is made for 1990. In these terms, a continuing decline in percentage of selected service receipts in the city is indicated related to a continuing population increase outside the city except for a minor gain in the hotel and recreation category. The 8.4% of total personal income projected for 1990 to be expended for selected services amounts to $695,000,000. The total city selected service receipts would amount to $361,000,000 based on the percentage indicated in Table 8. The distribution by category of this amount was shown in Table 7 within the city and is shown as a percentage of metropolitan receipts in Table 8.

Table 9 estimates selected services receipts for the city minus the downtown area for 1990. Drawn from the city figures of Table 7 and 8, the projected percent and receipts in dollars are established at 29 percent or $202,000,000. The selected service categories indicates receipts anticipated by that break-down.

Table 10 converts the projected retail sales shown in Table 5 and the projected services receipts of Table 9 into floor area requirements. All retail categories and two of the three services categories are shown in Table 10. The third category of services includes hotels, commercial recreation and additional facilities such as

TABLE 8 - SELECTIVE SERVICE RECEIPTS, CITY AS A PERCENT OF SMSA

	1958	1963	1967	1990	In Millions
Personal, Business	73%	58%	59%	55%	$220
Repairs, Auto	67%	63%	58%	47%	$65
Hotel, Recreation	61%	49%	48%	50%	$76
TOTAL	68%	56%	56%	52%	$361

TABLE 9 - SELECTED SERVICE RECEIPTS, CITY LESS C.B.D. - 1990

	Percent of SMSA	Percent of Total City	Receipts in Millions of Dollars
Personal, Business	30%	55%	$121
Repairs, Auto	38%	81%	$53
Hotel, Recreation	18%	37%	$28
TOTAL	29%	56%	$202

TABLE 10 - CONVERSION OF CITY LESS C.B.D. COMMERCIAL RECEIPTS INTO FLOOR AREA REQUIREMENTS

IN THOUSANDS OF SQUARE FEET

	1967	1990
CONVENIENCE SHOPPING At $150 per square foot	1,800	2,847
COMPARISON SHOPPING At $100 per square foot	1,[illegible]	
FREESTANDING RETAIL At $35 per square foot	5,257	8,229
OTHER RETAIL At $40 per square foot		
PERSONAL, BUSINESS SERVICES At $50 per square foot	1,180	
REPAIRS, AUTOMOBILE SERVICES At $35 per square foot	857	1,514
TOTAL	11,469	1[illegible]

open pedestrian areas, loading and unloading space, and space for financial activities not included elsewhere. This last category is included separately under "additional facilities" in Table 11 and it is based on ten percent of the requirements preceeding it in the table. This has been found to be a reasonable standard to use for this category.

Table 11 converts the square footage floor area requirements of Table 10 into acres. Besides the "additional facilities", parking is added in this table. Parking facilities were determined by a ratio of parking spaces to floor area. It is recognized that parking demands vary according to uses, but when all uses are consolidated, the needs tend to even out differences. While some suburban facilities may reach a ratio as high as 5 to 1 of parking space to floor area, that high a ratio would be impractical in the city. Greater reliance must be placed on pedestrian and transit riders within the densely developed city. A 2 tol ratio for parking area to floor area is established as a goal in the city. The total area requirements of the city, less the downtown area, are presented in Table 11. The requirements for the central business district are added to this table to present the total requirements for the city by 1990. As mentioned previously, the central business district is covered separately. Table 11 also presents the needs of 1967 based on the same procedures used in determining the needs of 1990. Translated into terms of the amount of land required for commercial activities and the amount of land used or designeated for commercial purposes, the city needs only about two-thirds of the land presently designated for commercial purposes. The problem with over-zoning for commercial purposes is that an economic surplus of commercial property can be visually unpleasant in the form of vacant stores and, even more serious, the cause of blighting effects in neighborhoods.

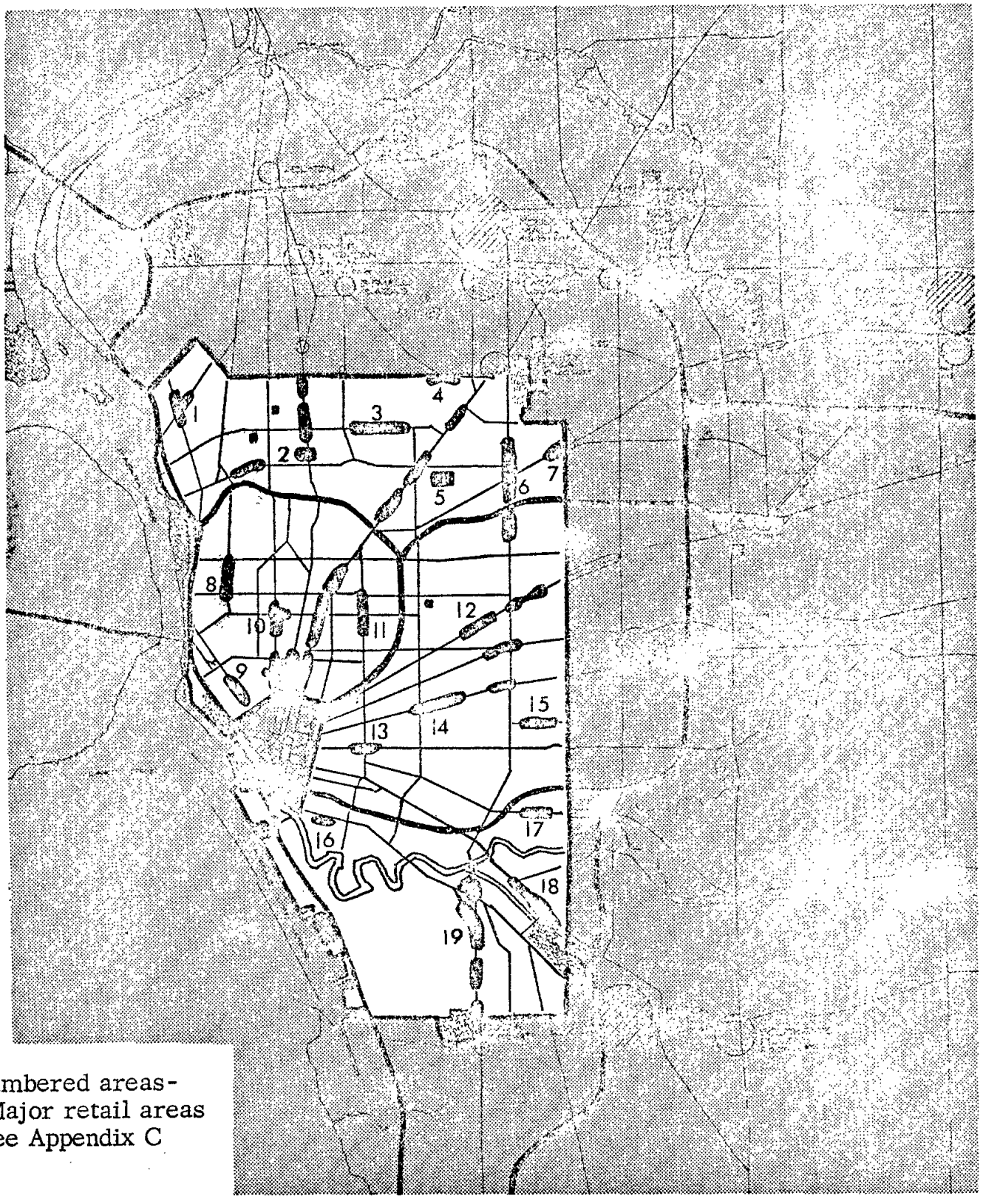
Indicated on Figure 2 are major shopping concentrations in the Buffalo area, with an emphasis on those in the city, outside of the central business district. The proposed distribution of shopping facilities is shown in Figure 3, the commercial plan. This builds upon the pattern suggested in Figure 2 but attempts to consolidate activities.

Neighborhood or convenience shopping areas are part of the plan but they are not indicated on Figure 3 due to their generally small area. The guide in locating such facilities should be based on the density of population of an area and its ability to support them. These small scale shopping areas should be reasonably compatible with residential areas and conveniently located, with a large number of customers who will walk to shop. One of the problems with a neighborhood definition is the lack of a limitation on the size of store. In reaching a community-level trade area, the number of automobiles increase and compatibility with residential neighborhoods is lost. The term convenience shopping is used to indicate the purpose of such areas and it is in keeping with the standard land use classification and with the census of business. Certain light personal and business services which are compat ible with residential neighborhoods, such as barber and beauty shops, should be permitted. In land use controls, the outlets should be limited in size to prevent community-serving facilities from being permitted. A 2500 square foot maximum floor area per outlet is proposed to govern this consideration. Local service facilities are proposed to provide particularly for those commercial and services activities which are not customarily considered to be compatible with residential neighborhoods. In mapping such facilities care should be taken to make sure that residential areas are protected from objectionable uses by physical barriers or other buffers. These

TABLE 11 - TOTAL COMMERCIAL AREA REQUIRED

In acres

	1967	1990
City, less C.B.D.		
CONVENIENCE	41.3	65.4
COMPARISON	32.1	61.3
FREESTANDING	120.6	188.9
OTHER RETAIL	22.4	48.8
SERVICES	46.8	90.4
PARKING	526.6	909.3
ADDITIONAL FACILITIES	79.0	136.4
TOTAL	868.8	1500.5
Central Business District		
C.B.D. TOTAL	190.0	200.0
TOTAL	1058.8	1700.5



Numbered areas-
Major retail areas
see Appendix C

FIGURE 2 - EXISTING MAJOR COMMERCIAL CONCENTRATIONS

areas would be distributed throughout the city but are not indicated on the plan due to their small area. A maximum floor area of 5000 square feet per outlet is proposed to prevent large scale operations. The amount of land designated for this purpose should be limited to the realistic need for such facilities and located in areas where they cannot disturb residential neighborhoods. Commercial activities of the convenience shopping areas should be permitted in this district.

Community facilities are located on major streets. Past development has resulted in elongated commercial strips. The lack of unified development of such facilities finds a general deficiency in parking facilities. The pattern proposed is not a drastic change but it does propose redesign of such facilities, consolidation and more efficient use of the commercial areas. Community retail facilities are comparable to the categories of commercial uses of the proposed convenience shopping areas but they would not be limited as to floor area. Consequently a larger trade area would be covered and more automobile traffic may be anticipated. Such uses could be disruptive to a neighborhood. Buffers should be provided between them and residential uses.

Two categories of community retail facilities are shown on the plan, the smaller category, A, indicates facilities of less than 15 acres. Category B indicates facilities with larger areas. Differences would also involve the types of activities. Generally the smaller area would concentrate on the convenience shopping category, as super markets, while the larger areas would increase their reliance on comparison shopping activities, such as apparel and home furnishings. The larger category is distinguished on the plan and is based on the major or traditional shopping areas of the city.

Where either a small or large community retail area is indicated, but the existing commercial activity is less than community level, it is anticipated that those areas have the potential of reaching the level indicated. Part of that potential would rest in the consolidation of scattered retail facilities and in making the area attractive for shoppers.

Regional commercial facilities would attract customers from a regional level and would include large scale commercial operations. Such facilities would include both individual outlets standing by themselves and groupings of outlets. Added to the permitted uses would be those classified in the freestanding category, such as motels, automobile sales and building materials which attract customers beyond the community level. Other regional facilities should be considered as such but will require special considerations. The Delaware Avenue and the Broadway-Fillmore areas are considered regional in scope but each area has individual characteristics in addition to their level of service. Such characteristics should be further developed and permitted uses in those areas should differ from the general category of regional commercial. The downtown area, which is treated separately, is also a regional area that requires special regulations.

Part of the commercial requirements of the city will be met in mixed-use areas. Commercial activities in such areas would emphasize convenience shopping and personal and business services. Mixed commercial and residential uses in certain areas is considered to be desirable. However, the mixture of such uses will require special consideration and control.

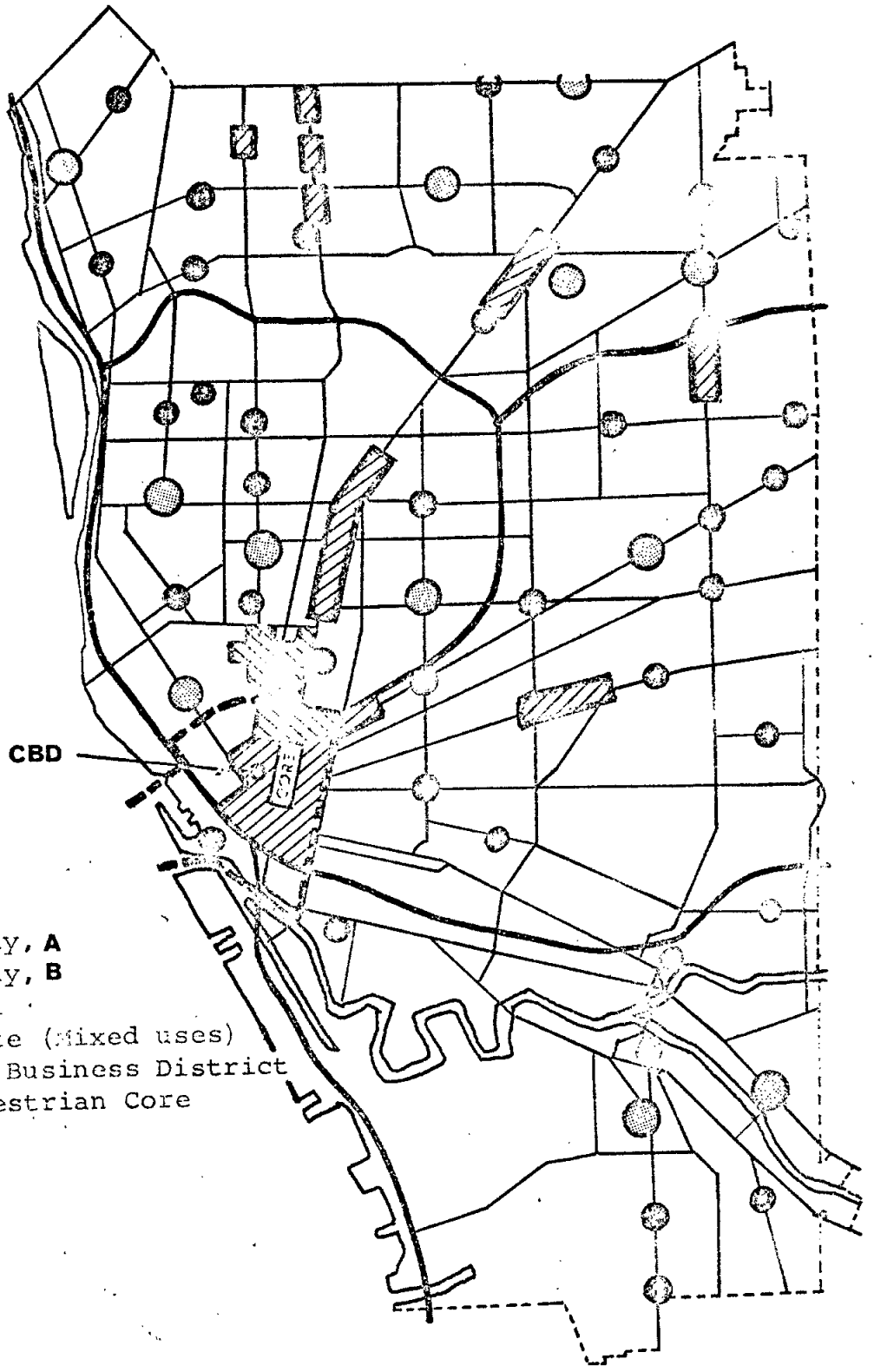


FIGURE 3 - COMMERCIAL PLAN

SUMMARY AND CONCLUSION--The plan proposes an orderly distribution of commercial development. Development plans for individual components are outside the scope of this plan but should be prepared within a comprehensive plan for the entire city. Problems existing can be resolved by pursuing the following goals:

Commercial activities should be consolidated into centers.
Enhancement of the appearance of facilities and the provision of additional parking.
Distinguish between neighborhood and community trade.
Modernize older retail establishments.
Provide shopping amenities.

This section of the commercial plan deals with commercial activities outside the central business district. The importance of a built-in market for such fundamental needs as food will help support the plan. The downtown area which is covered separately, calls for efforts to capture its potential commercial market. It's retail market is primarily in the field of comparison shopping where customers must be attracted to a far greater degree than for convenience shopping.

There is not any need for additional commercial ground in the area of the city outside the downtown area. In fact the city has enough land designated for commercial purposes for a city of well over 700,000 persons. This figure does not include vacant land designated for industrial uses which also could be used for commercial purposes. An over-abundance of commercially designated land can have a deteriorating effect in the city. Improvement in the existing system is required with an emphasis on consolidation of uses and the distinguishing of uses. The fulfillment of this general plan will rely largely on the initation and imagination of business community.

TABLE 12 - CHARACTERISTICS OF PROPOSED COMMERCIAL AREAS BY TYPE

	Convenience	Commercial	Local Service	Regional
Description	Small scale retail and personal and business services serving the immediate neighborhood	Retail and personal and business services at a scale to serve the needs of a community but excluding heavy service uses	Small scale services which could be objectionable to residential areas. Location should be buffered from residences	Large scale commercial uses to serve a region of substantial size. Large individual outlets or grouping of outlets
Floor Space	2500 sq. ft. per floor 5000 square feet total	to 100,000 sq. ft.	5,000 sq.ft.per fl. 10,000 square feet total	to 250,000 sq. ft.
Outlets	Small scale convenience shopping, personal and business services	Large scale convenience shopping, some comparison shopping personal and business services	Small scale free-standing commercial uses, services and retail activities	Large scale retail trade and services
Trade Area	To 10,000 persons 5 minute travel time	to 30,000 people 15 minute travel time	to 30,000 people 15 minute travel time	Over 30,000 people 30 minute travel time
Ground Area	Acre or less	5-30 acres	Acre or less	No limit

TABLE A-1 DISTRIBUTION OF POPULATION AND COMMERCIAL ACREAGE BY COMMUNITY

	1963		1970	
	Population in thousands (estimated)	Commercial Acreage (Base Study)	Population in thousands	Commercial Acreage
RIVERSIDE	32.0	196.6	30.5	199.2
NORTH BUFFALO	46.0	103.8	43.3	103.8
NORTH EAST	41.0	142.0	39.2	137.3
WEST SIDE	58.0	115.5	53.8	116.7
ELMWOOD	35.0	111.2	31.8	112.9
MASTEN	52.0	49.5	46.9	51.1
EAST DELAVAN	70.0	131.2	65.6	150.6
CENTRAL	12.0	186.9	5.3	199.4
ELLICOTT	38.0	165.6	30.9	160.9
EAST SIDE	53.0	119.3	46.8	121.4
BUFFALO RIVER	13.0	136.4	12.1	136.4
SOUTH BUFFALO	58.0	111.7	56.5	116.9
TOTAL	508.0	1,569.7	462.7	1,606.6

APPENDIX B

Explanations of Disposition of Personal Income, Retail Sales and Selected Services.

The distribution of personal income is presented in graph form in Figure B-1. Disposible personal income is based on projected personal income less taxes and certain inflexible nontax payments. Excluding savings, personal consumptive expenditures remain. Within this category are plotted expenditures for retail sales and selected services. Left is a category labeled "other personal expenditures" which would include items as travel, educational and medical expenditures. Projections on a graph basis would prove inadequate on their own due to those considerations which alter graphic projections. For example, as disposable personal income increases, the percentage spent on retail sales will decrease. Housing units as a basis of spending patterns were not used to build estimates due to the pattern of change of such units in the City of Buffalo. Over the last 20 years persons per housing unit dropped from 3.37 persons to 2.84 persons. The relationship between personal income and expenditures was felt to be a more concrete measurement than income of household units for the City of Buffalo. Considerations used in the plotting of the disposition of personal income are described in the text. The graph was prepared to visually present various projections in relation to one another and as a control device.

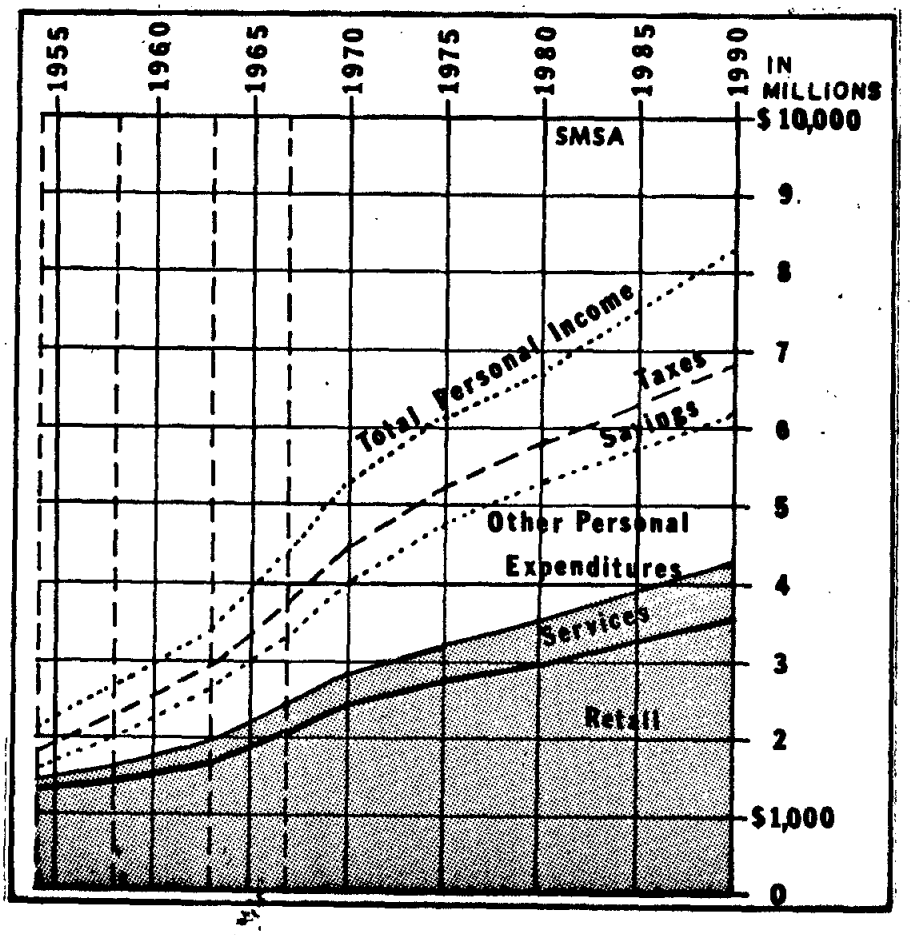


FIGURE B-1 DISPOSITION OF PERSONAL INCOME

Retail trade categories are composed of types of trade that are similar in customer attraction. Convenience shopping includes the sale of items that may be considered as continually necessary and which require little comparison on the part of the purchaser. They are usually purchased without traveling a significant distance. Comparison shopping includes those items for which the purchaser will travel some distance to obtain the specific item he desires. Freestanding commercial trade includes those outlets which generate sufficient trade to stand by themselves. The convenience shopping group includes the following: grocery, meat, fish, fruit, vegetable, candy, bakery, eating, drinking, drug and proprietary stores. The comparison shopping group includes the folliwng: department, variety, general merchandise, clothing, accessory, fur, shoe, furniture, home furnishings and appliance stores. The freestanding category includes: building materials, building supplies, motor vehicle dealers, tire, battery and accessory retail outlets as well as gasoline service stations. The category labeled "other retail" includes: liquor, antique, secondhand, sporting goods, jewelry, fuel, ice, florist, cigarette, and mail order outlets. Selected services listed are grouped by those requiring comparable space requirements. The first group labeled "personal and business services" includes the following: laundry, cleaning, pressing, linen supply, diaper,beauty, barber, photographic, shoe repair, and funeral services; advertising, representative, window cleaning, structure and building, disinfecting and exterminating, management, consulting, statistical, public relations, interior decorating, credit and collection, duplicating, mailing, stenographic, employment, research, testing, detective, protective, equipment leasing, photo-finishing, trading stamp, temporary help, sign painting, and answering services. The second group labeled "repairs and automobile include the following: general automobile repair, auto top and body, auto painting, battery, auto glass, brake, wheel, axle, spring, exhaust, and automobile transmission repair services; automobile parking, vehicle rental, and automobile washing services; electrical, radio, television, refrigerator, reupholstery, furniture, watch, clock, jewelry, welding, lawnmower, knife, tool, and sewer repair services. The third group labeled "hotels and recreation" include the following: hotels, motels, motion pictures, amusement, recreation, orchestras, entertainers, theatrical, bowling, billiard, pool, dance halls, dance schools, commercial sports, and skating services.

APPENDIX C
Major Commercial Areas

Figure 2, page VI-14 indicated the following existing major commercial concentrations:

1. Tonawanda-Ontario, Hunt to Crowley - 36 outlets
2. Delaware Parking Shopping Center, Plaza-19 outlets of 64,700 sq. ft.
3. Hertel Avenue, Wallace to Colvin - 55 outlets
4. Kenmore Avenue near Englewood, two small plazas-10 outlets, 49,000 sq. ft.
5. Central Park, Plaza - 26 outlets, 265,000 sq. ft.
6. Bailey-Kensington, Langfield to Stockbridge - 58 outlets (part of Langfield Plaza lost to expressway)
7. Cleveland Hill, Plaza - 14 outlets, 80,000 sq. ft.
8. Grant Street, Hampshire to Lafayette - 38 outlets (including West Side Plaza, 7 outlets, 75,000 sq.ft.)
9. Niagara Street, Virginia to Pennsylvania - 30 outlets
10. Elmwood-Utica, Bryant to Anderson - 17 outlets
11. Jefferson-Utica, Northampton to Woodlawn - 47 outlets
12. Genesee-Moselle, Barthel to Koons - 42 outlets
13. Jefferson-William, Plaza under construction - 60,000 sq. ft.
14. Broadway-Fillmore, Reed to Loepere - 80 outlets
15. Lovejoy, Ideal to Davey - 15 outlets
16. South Park, Chicago to Hayward - 9 outlets
17. Clinton, Weiss to Fenton - 18 outlets
18. Seneca-Cazenovia, Princeton to Indian Church Rd. - 38 outlets
19. South Park, South Side to Choate - 12 outlets

At the present time the continued development of commercial facilities proceeds with little direction. Often new commercial facilities conflict with older established developments and the economic strength of the newer facility has a damaging effect on an old community core. Newer facilities tend to capture the profitable aspects of the older core areas but do not supply the other urban values often inherent in the older centers.

Besides representing a waste of land, the lack of controlled development has a tendency to leave obsolete commercial structures standing as replacement facilities are built in other locations. This tendency can introduce blighting influences on residential neighborhoods.

A revitalization of the older community commercial areas should occur and improvements made within them. The consolidation of existing commercial activities should be stressed. Generally population has declined in areas adjacent to the older commercial areas. It would be desirable to seek new residential construction in areas of old strip commercial zoning to assist in providing residential support for remaining commercial areas. More attractive exteriors and a general rehabilitation program should be undertaken in these old core areas along with the seeking of new construction. Improved pedestrian amenities and off-street parking facilities should be provided in strategic locations.

The best way to compete with commercial facilities, especially those in suburban areas which have drawn shoppers away from city facilities, is to provide an environment for shoppers that is more attractive physically and socially than that offered by shopping plazas. Urban or social facilities beyond strictly commercial needs should be provided.

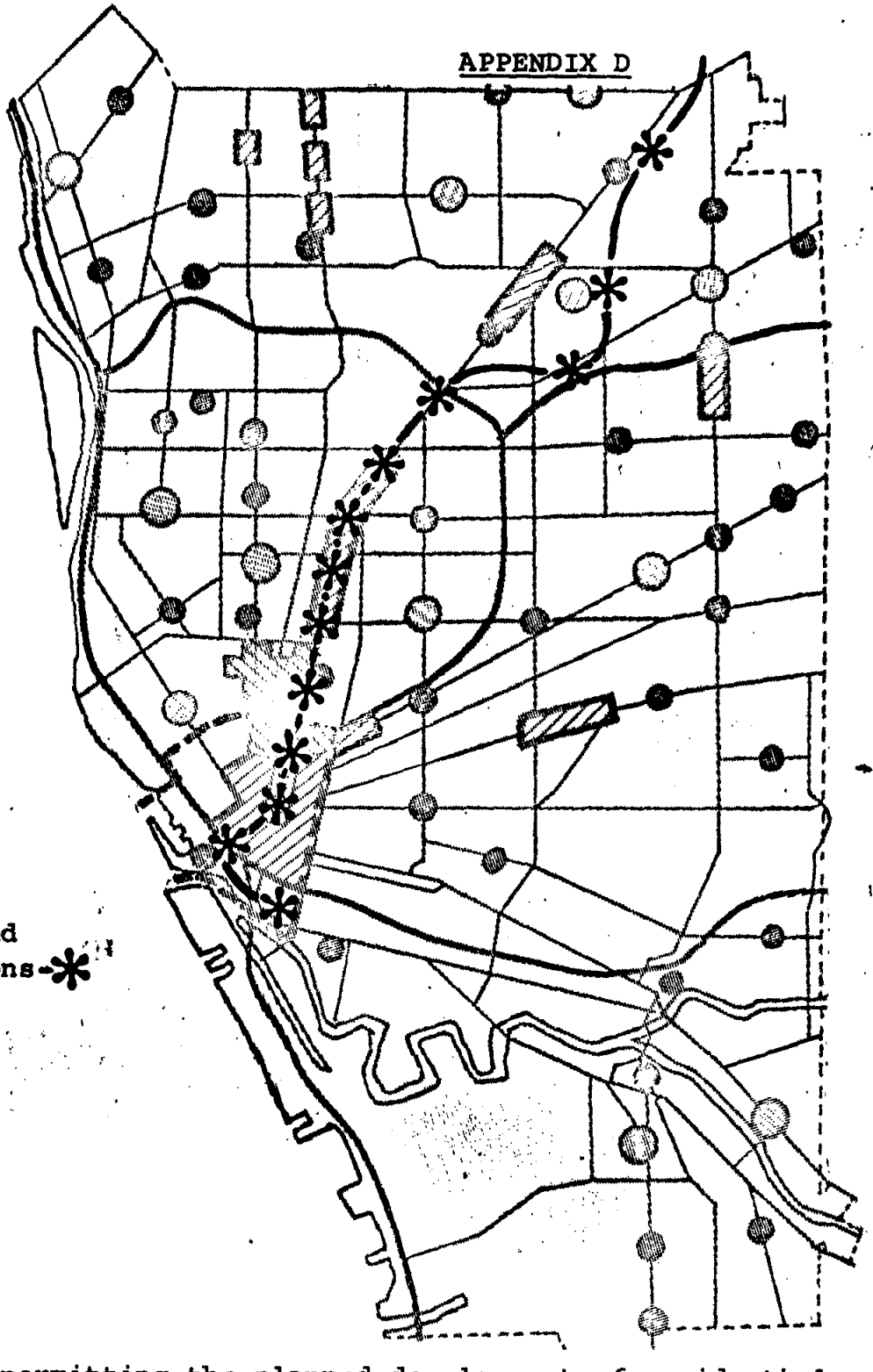


FIGURE D-1 - Proposed Rapid Transit Stations-*

Special regulations permitting the planned development of residential and commercial uses in areas adjacent to the stations of the proposed rapid transit line will be required. Land use regulations should be flexible enough to permit individual control at each station. The large public investment in the transit facility warrants special public controls.

April 1971

the regional center

A Comprehensive Plan for Downtown Buffalo, New York

Contents

Foreword

This is a plan to revitalize Downtown Buffalo. It is a response to the awareness of City Leaders that the future of Buffalo City lies in the health of its center city. If Buffalo City is to remain fiscally solvent, if it is to offer the high level of services necessary to make it an attractive and humane place to live, then a major effort will have to be made to develop Downtown to its full potential. It will have to be maintained not only as a growing marketplace, but as the administrative and cultural center of the Region . . . strong, active, and visually exciting.

The Plan outlines those elements necessary to accomplish these ends. The proposals are interlocking; they are intended to work together in producing an area with a "critical mass" that can bring new activities to Downtown and expand the economic and social life of the City.

Stated specifically, the major goals for Downtown are a seven point program as follows: (1) to increase the number and variety of jobs available Downtown; (2) to increase residential opportunities close to jobs and social activities; (3) to increase city tax revenue; (4) to maintain Downtown's role as the administrative center of the Region; (5) to raise the level and increase the scope of Downtown services for the Buffalo metropolitan area; (6) to attract as diversified a mix of mutually supporting activities, businesses, and people as possible; (7) to seek out and promote programs and projects in the City and Region that are compatible with Downtown goals.

The above goals and objectives will be realized only if they are supported by public policy that is keyed to the future of a dynamic Downtown. It will take a far sighted approach to many public ideas and decisions, from aesthetics to land use to activities, in order to safeguard or enhance the overall Plan. The following policy implications are vital to the entire program:

1. Increase the capacity of public transportation facilities to accommodate maximum expectations for development growth.

2. Plan the arrangement of future land uses judiciously to permit the proper location of new development.

3. Provide and locate sufficient parking space to avoid retarding new private and public development.

4. Locate new public improvements so that space for new private development is not preempted.

5. Pursue vigorously development compatible with Downtown activities that might otherwise locate elsewhere in the Region.

6. Make pedestrian movement throughout Downtown as comfortable as possible, providing all-weather passages wherever possible.

7. Protect and preserve buildings or spaces that have historic or architectural value.

8. Exploit opportunities for creating new and exciting public space and building forms.

9. Promote good design in the creation of new buildings.

10. Encourage the location of new buildings at points that reinforce the interrelationship of activities.

11. Enhance the interest of Downtown by importing complementary functions. For example: a convention and exhibit hall which can be visited at the same time.

12. Locate functions Downtown that generate activity during off-peak hours such as convention facilities and theaters.

13. Promote the development of a central community college accessible by public transit to serve the Regional Center.

The prime move now toward achieving these goals is to implement the Plan. If the Plan is implemented, there is every reason to anticipate a bright future for the regional center and spin-off advantages to the entire Region. These advantages have been substantiated by the inspiring examples of several other regional centers planned and developed in the country. Such action gives the people of a city a sense of belonging, a feeling of pride and concern and involvement. It becomes the life line of a city. Conversely, without it, without action, the City will wither.

Summary of the Concept Plan for Downtown Buffalo:

A Framework for the Continuing Renaissance of Downtown

1 The Investment Climate

Establishment of the appropriate investment climate in downtown Buffalo will produce a major change in the downtown area over the next twenty years. The potential for change is startling when viewed against the background of the decline of Downtown in the post World War II years. This change has has already begun. It gives every indication of continuing with strong leadership to insure that strong actions are taken in the immediate future.

The Plan projects new total gross investment of approximately $450,000,000 over the next 20 years. $285,000,000 of this amount is represented by new office space. New retail space will represent roughly $25,000,000 of new investment, public office space $75,000,000 and hotels $45,000,000.

When put into the context of anticipated regional growth, these are reasonable, even conservative, estimates. Based on anticipated population increases in the Region, office space in the Region is expected to rise at about 4.7% per year. Downtown conservatively could capture about 35% of this growth per year since it is already the administrative headquarters for the Region. In terms of retail growth an increased capture of 33% of regional sales (shopping goods only) is not an unreasonable expectation if Downtown produces an environment competitive with suburban shopping malls. Its variety and many other qualities and advantages cannot be duplicated in suburban shopping malls, whereas Downtown can duplicate the facilities found in suburban malls.

These new investments translated into floor space equal approximately 13,275,000 square feet of new space in the Downtown by 1990. 7,830,000 square feet of this growth is new private office space; 2,500,000 square feet is public office space for Federal, State and local government use. New retail space is about 1,030,000 square feet; new hotel space 1,370,000 square feet. All of this growth represents additional annual property tax revenues of approximately $6,900,000 or an increase of roughly 85% over the present $8,200,000 property tax revenues in Downtown. Additional retail sales will represent $60 to $80,000,000 per year over present downtown retail sales or a nearly 50% addition to present gross retail sales. Additional retail sales taxes will be about $2,700,000.

Three important ingredients are required to trigger this new growth. These include: (1) the Buffalo/Amherst corridor high speed transit line with stations integrated into the Mall system to allow commuters to go from home to shopping or office destinations in a pleasant year-round environment; (2) an ancillary all-weather, air-conditioned Mall on Main Street between Genesee and Church Streets and the removal of all vehicular traffic on Main Street in this area; and (3) increases in parking supply to keep pace with new growth resulting in 20,000 new parking spaces.

2 Major Elements of the Plan

a. A smoothly operating movement system integrating pedestrian, rapid transit and vehicular traffic, for the purpose of increasing the total number of daily trips to Downtown and increasing the ratio of rapid transit trips to auto trips.

b. The new downtown Mall for the purpose of creating a pleasant all-weather environment to revive downtown retail sales.

c. An increased parking supply related to the street and expressway system in such a way as to reduce the traffic on the downtown street system.

d. New office space development induced by the environment created by the first three elements described above, to increase the economic health of the City of Buffalo.

3 The Movement System

The proposed Buffalo/Amherst corridor transit line is an important ingredient to the success of the Downtown Plan. The bulk of the cost of the high speed transit line would be assumed by County, City and other adjoining municipalities, Federal funding, and the present mortgage tax already earmarked for public transportation improvements.

Other increases in tax rateables along the line, plus the increases in other tax sources resulting from downtown growth triggered by the Plan, including augmented retail sales taxes, utility taxes, etc., would be net additions to the City's tax position.

Other major benefits of the movement system envisioned by the Plan result from the integration of rapid transit stations and parking structures with the pedestrian mall system, providing a smooth transition from automobile to the pedestrian system and from transit stops to the all-weather pedestrian system.

Based on greatly increased downtown accessibility, the impact of the rapid transit lines on Downtown will result in the following:

a. Increased retail market potential of between 9% and 13% because of increased numbers of people Downtown.

b. Reduction of long term parking demand by 3,500 spaces.

c. *A 10% decrease in peak hour traffic on the downtown street system.*

d. Marked increases in service and convenience.

4 Parking

The basic concept of the movement system is balance between mass transit and the automobile.

The parking element of the Plan proposes *20,000 new parking spaces* in structures over the next 20 years, or 1,000 spaces a year.

This represents a *net* addition of spaces of only 5,000, an increase of 18% over the present stock.

Almost 750 surface spaces will be eliminated each year. The Plan calls for replacement of these 750 per year plus 250 per year or 1,000 new spaces a year over the next 20 years.

The City now has a workable and successful parking formula: the use of City bonds with special private back-up for any special subsidies necessary because of extra costs for underground or complicated building requirements. Main Place and the new Marine Midland office tower development are examples of such special situations.

Current plans and normal downtown growth will eliminate 6,000 present off-street parking spaces (3,000 from the waterfront and 3,000 from other building sites).

Another 3,000 legal on-street spaces and 6,000 illegal on-street spaces reduce the effectiveness of the present and proposed street system. These are proposed to be eliminated. The total reduction of spaces adds up to 15,000.

Current costs of these spaces at today's prices would be about $70 million at an average of $3,500 per space. As costs will go up, rates will necessarily also rise.

The Marine Midland costs per space are higher than $3,500, and the arrangement is that Marine Midland will absorb all costs over what the user charges support. Therefore, the use of City bonds is a convenience that does not cost the City itself anything.

At the rate of 1,000 spaces a year, the City will put up bonds of $3 to $5 million a year on either a revenue or no-down-payment basis.

Actually Marine Midland has already accounted for 560 spaces and when complete will account for 1,500 of the 20,000 spaces. In addition, 1,800 more spaces are under serious consideration (e.g., City Court Ramp) and another 1,000 spaces are in early planning.

It is evident that Downtown's achievement rate is already well ahead of the necessary pace of 1,000 new spaces per year.

Naturally, if new development slows down, the City's commitment rate will also slow.

Parking is essential to the Plan: the community has the mechanism for financing it, and it will happen as development occurs.

A fundamental fact! Local government will not pay the cost. The users, parkers and businesses who buy and benefit from the spaces are those who pay. Anticipated rate structures for Marine Midland reflect this fact: employee parking is 50¢ for the first hour, 30¢ for the second, and 20¢ for each additional hour. Shopper parking rate structures should be lowest in the first hour and rise to discourage all-day parkers, with merchants subsidizing only as they see it individually to their benefit. This would apply only to structures immediately adjacent to the shopping area.

5 The Downtown Main Street Mall and Retail Sales

Current retail sales Downtown are at about $140 million a year. If the merchants, property owners and City take steps envisioned in the Plan, sales will rise to between $200 to $220 million as Downtown attracts its share of regional retail sales growth.

The Downtown Main Street Mall and the proposed subway are key elements in making this $60 to $80 million growth possible. It is estimated that the Mall alone will increase present sales by 20%, or $28 million. A new department store is proposed in present Lafayette Square, both to take advantage of this potential and to help generate the environment that will make it possible. The total costs, in current 1970 dollars, of the Mall are $8.5 million. These total costs can be supported by an increase of only $1.2 million in retail sales tax, a 0.8% increase over present sales, and only 2.0% of the anticipated increase of $60 million, in 1970 dollars. It should be noted that these figures do not include increases in either costs or revenues resulting from price escalations or inflation.

Various mechanisms for equitably distributing these costs on property owners and merchants have been worked out in many other cities and the best of them can be adapted in Buffalo. Through City leadership, a quasi-public corporation can proceed to the next step of more detailed planning and design development.

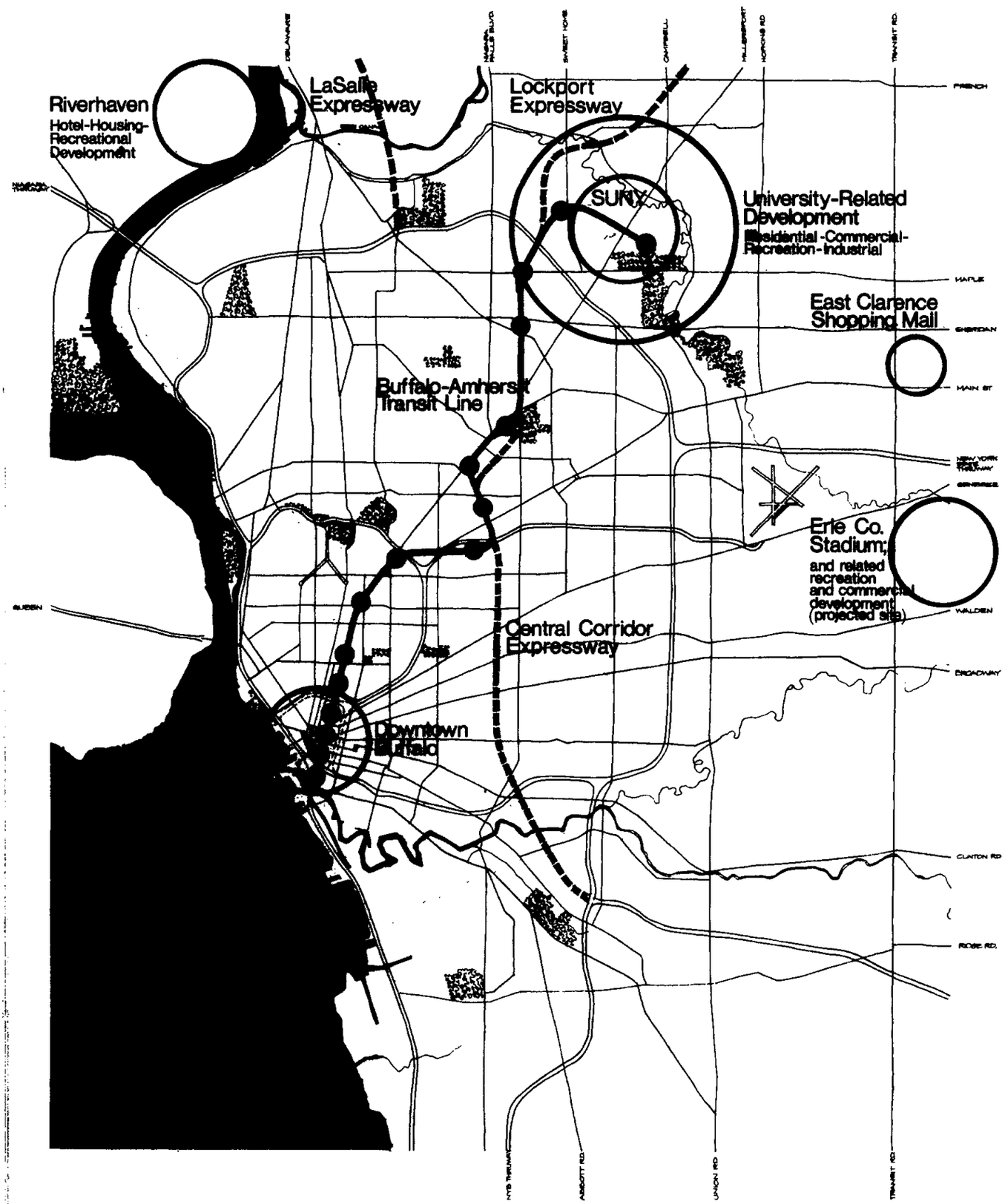
6 New Office Space

Private office space is expected to increase by 7.8 million new square feet. About 1.5 million square feet of this is already programmed (Marine Midland and the utility companies). New public office space totaling 2.5 million is expected to be built over the next 20 years. Roughly one million square feet is already programmed.

In terms of income to the City, new private office space development will account for the lion's share. Of the approximately $6,900,000 total anticipated additional downtown property taxes annually, new private office accounts for a great preponderance, possibly as much as 80% of these taxes. Therefore, again it should be stressed that one of the main purposes of the rapid transit, the Mall and parking actions proposed is to create the environment and investment climate in which this new private office development can take place.

7 Conclusion

That the City administration and other leadership groups in the Downtown must supply the impetus in mobilizing Downtown for action is axiomatic. But, if that leadership is supplied, the rewards for Buffalo will be great. Through a concerted program involving relatively little cost to the City, except in terms of leadership, the current image of Downtown can be reversed, a pleasant and exciting physical environment established, a new and favorable climate for investment created and the tax picture radically altered.



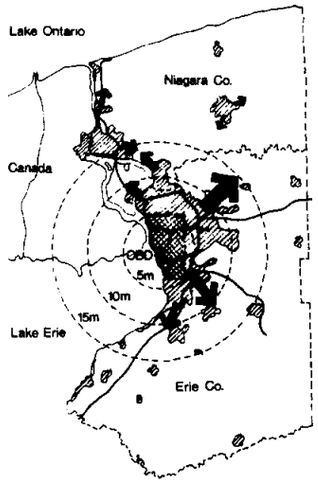
Proposed Major Regional Developments

The Regional Context

Downtown Buffalo lies at the eastern end of Lake Erie at the entrance to the Niagara River. It was in its early history the major transshipment point to and from the west on the lakes and was the junction first with the Erie Canal and later with the railroads.

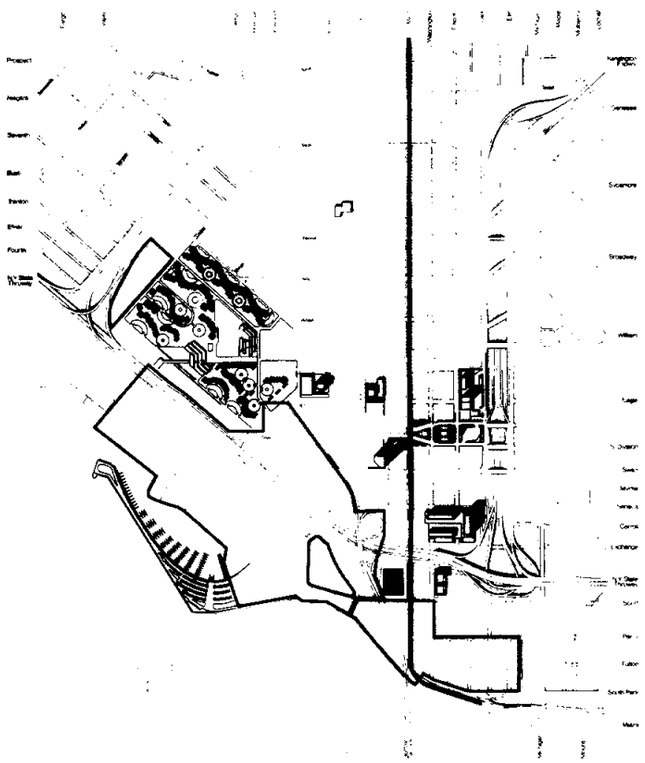
Heavy industry subsequently grew to the north and south of what is now Downtown. Manufacturers used this geographical point to reduce high bulk/low value raw materials shipped from the west into high value/low bulk products to be shipped east. The steel and grain products industries are examples.

As a consequence of this history, Downtown is located asymmetrically to the urbanized area of the Region. This fact has both advantages and disadvantages. The potential amenity of proximity to the Lake is an asset which can be and is being exploited. On the other hand, its position puts it in a somewhat weak position to tap potential retail markets. This disadvantage can be overcome by improving Downtown's accessibility to the Region. Current and proposed transportation facilities will improve its position.

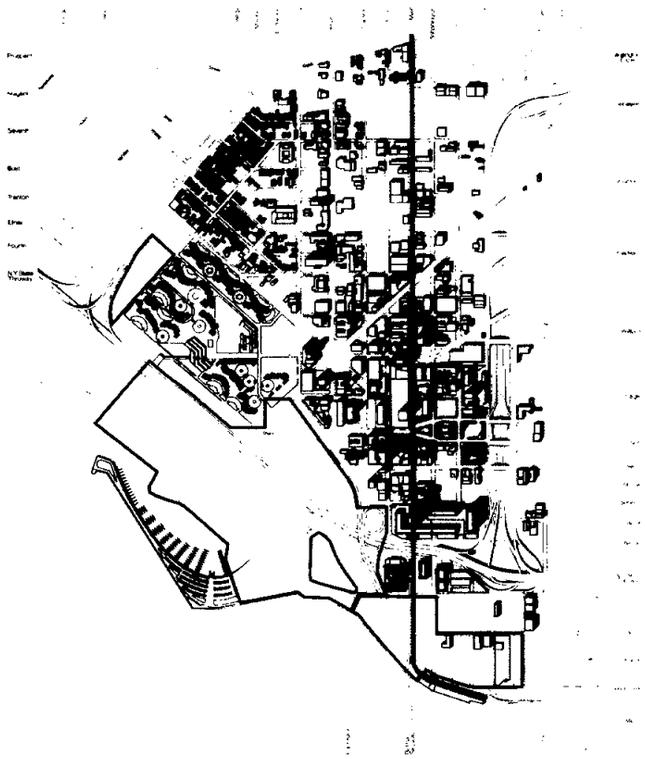


Existing Structures

Existing Givens



Future Developments



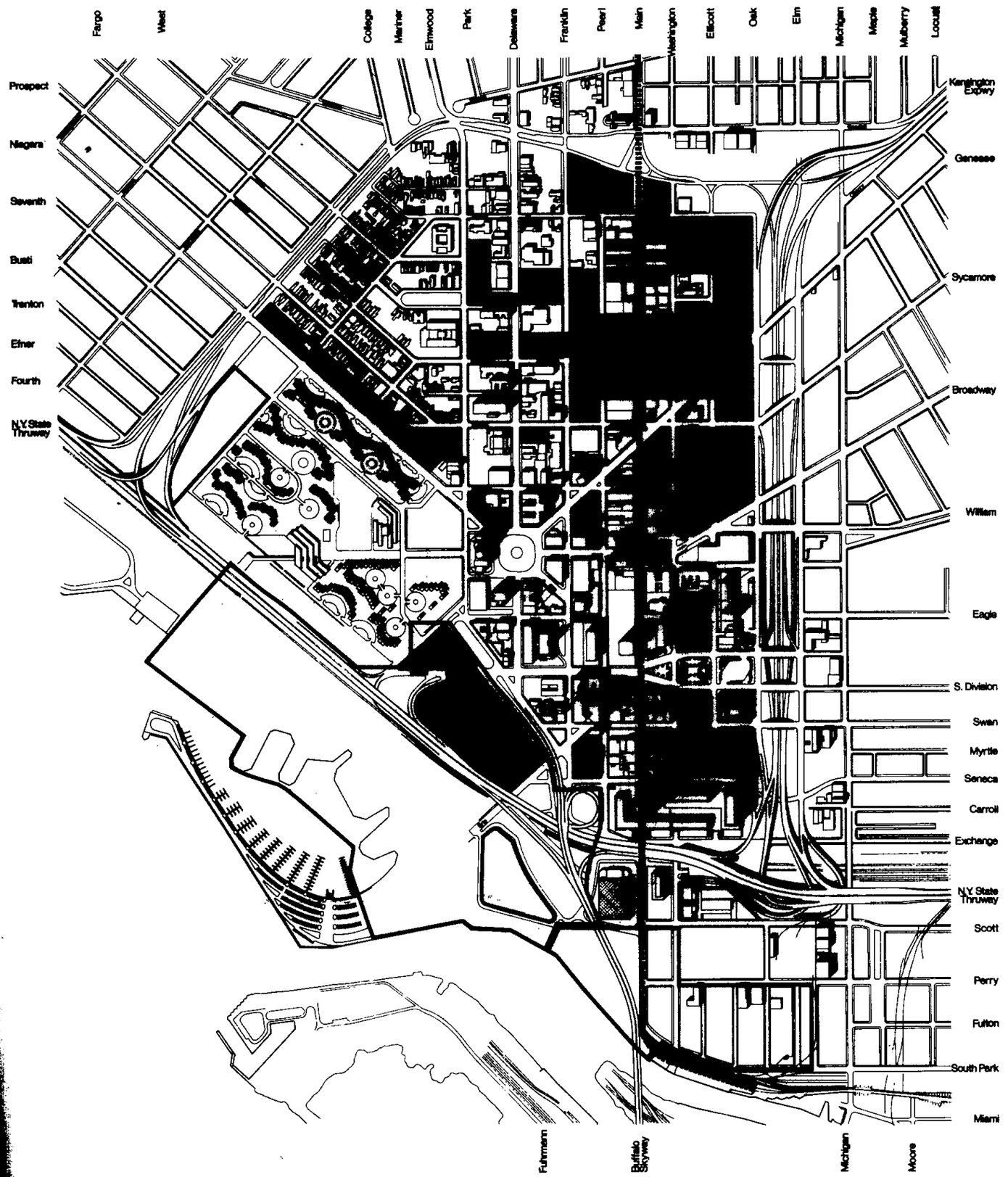
Existing Givens and Future Developments

Long-Range Givens
Middle-Range Givens
Committed Development
Proposed Development

Building Life Expectancy

Those areas in Downtown Buffalo where development might occur with the least cost and least disruption of important activities were determined by the investigation of the physical characteristics and functional activities of all buildings. The purpose of this investigation was to describe those areas where new development could occur with least disruption to existing activities and where land could be assembled at relatively low cost.

All non-residential buildings were evaluated on the basis of the following criteria.



General Areas of New Development Opportunities

1 Physical Characteristics

The physical characteristics considered in evaluating the life expectancy of all buildings in the downtown project area were:

a. Major Criteria
Building Height (number of stories)
Building Size (gross square feet)
Historic Value

Other considerations being equal, high buildings and large buildings are more resistant to change than low buildings and small buildings and, therefore, have greater life expectancy. Historic buildings are considered valuable to the City and thus judged resistant to change.

b. Minor Criteria
Fireproof Construction
Enclosed Elevators
Building Age
Visual Importance
Architectural Significance

The evaluation of each building by these criteria provided the basis for determining the expected life of each building and its susceptibility to change.

2 Functional Characteristics

The activity function of each structure was evaluated on the basis of its importance to the Downtown Buffalo area, and on its expected life in the particular structure. This was done on the basis of a detailed survey of downtown activities.

Factors used in this evaluation were as follows:

a. Evaluation of Functions and Uses by City Officials

b. Numbers of People Employed

c. Activities Important to the Economic Base
Unique Activities
Specialty Shops
Institutional Uses
Parking Facilities

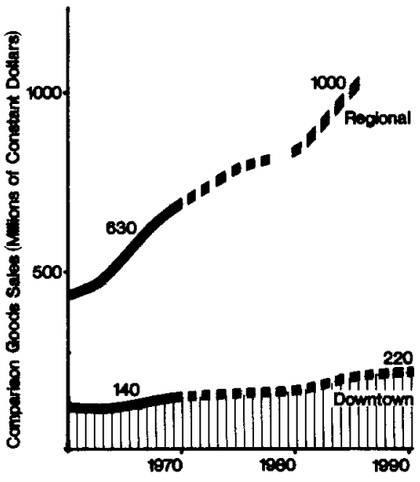
d. Suitability of a Building for the Use Occupying It

Downtown Development Opportunities

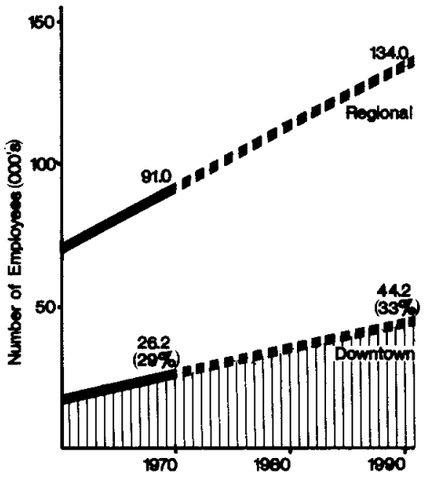
The Buffalo Region has a relatively low growth rate compared to many other regions in the country.

Nevertheless, when translated into a somewhat conservative possible capture rate for Downtown, the result is a considerable expansion potential for Downtown. This potential could easily result in a doubling of the present floor area in Downtown between 1970 and 1990.

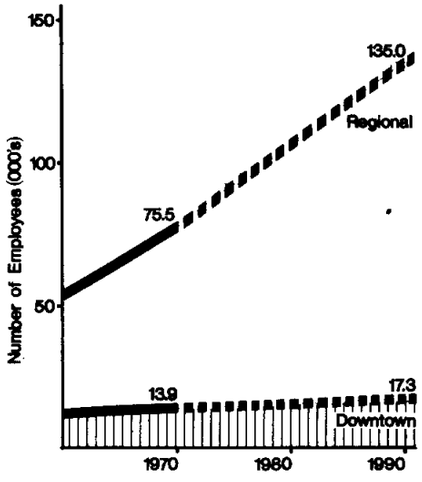
The illustrations on this page demonstrate graphically the great potential for growth that exists for Downtown. The problem is not whether Downtown will grow, but how the Downtown can be designed to produce an environment which will maximize its growth.



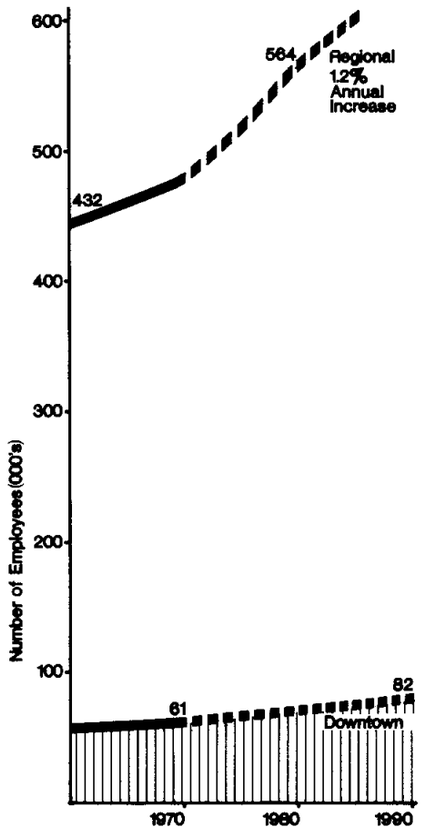
PROJECTED RETAIL SALES 1970-90



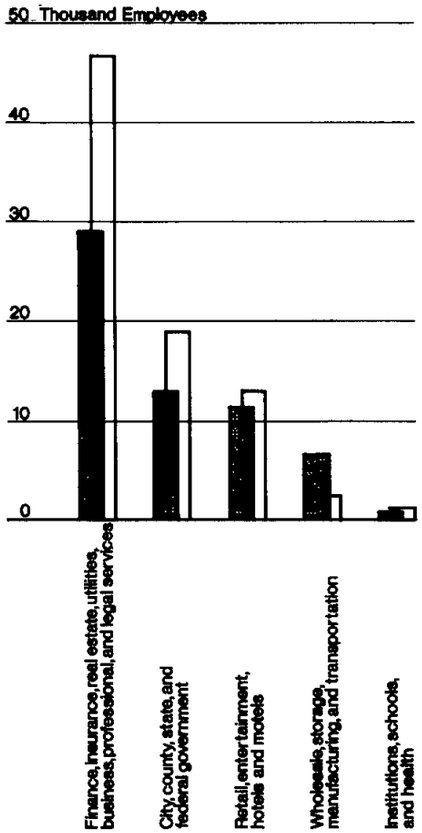
PROJECTED OFFICE and CLERICAL EMPLOYMENT 1970-90



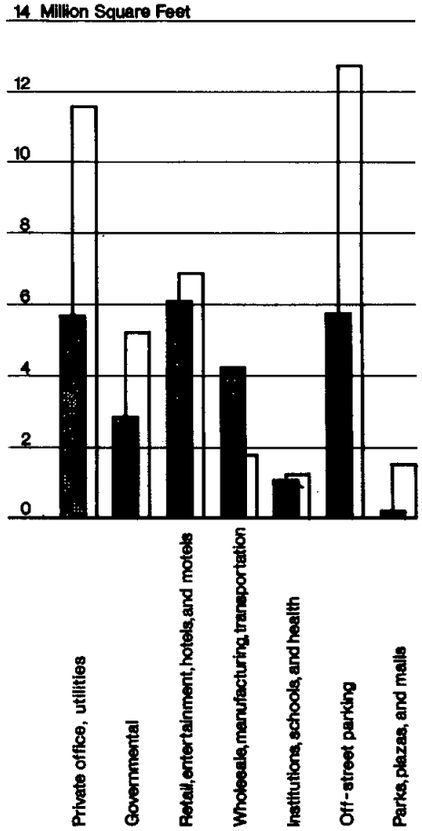
PROJECTED GOVERNMENTAL EMPLOYMENT 1970-90



PROJECTED EMPLOYMENT 1970-90

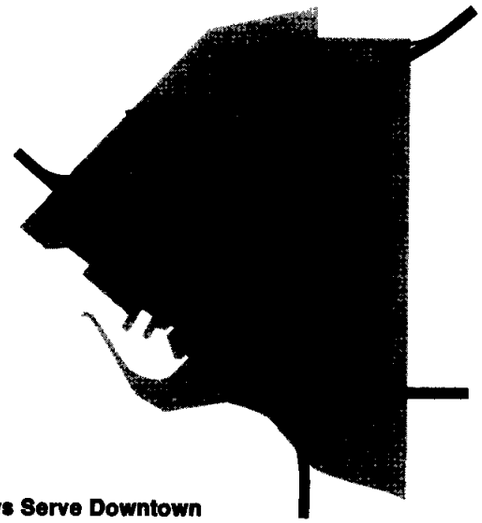


PROJECTED DOWNTOWN EMPLOYMENT 1970-90

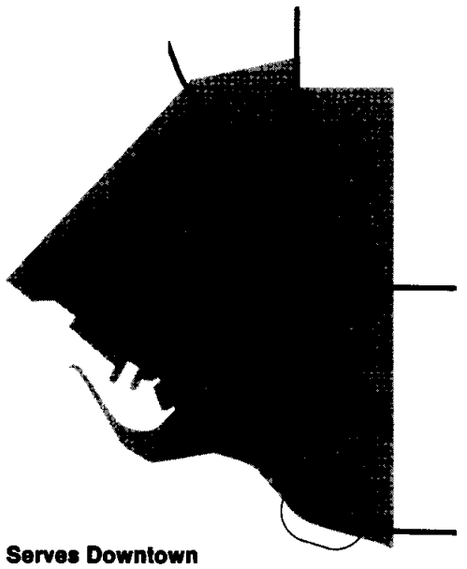


PROJECTED DOWNTOWN SPACE 1970-90

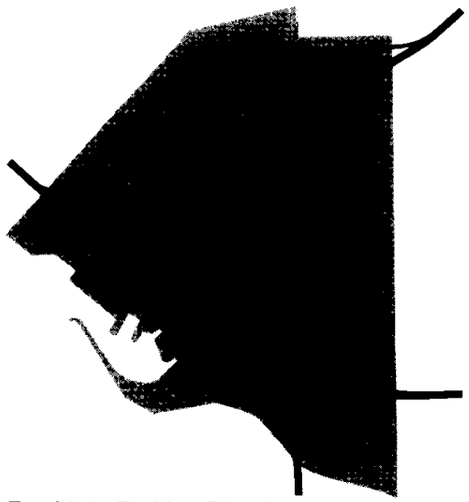
Downtown Development Opportunities



Expressways Serve Downtown



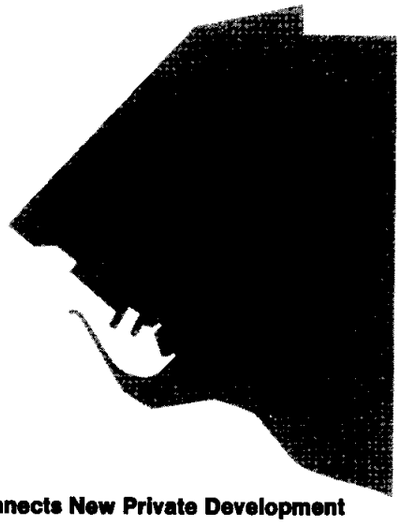
Mass Transit Serves Downtown



Expressways Feed into Parking Structures

Mass Transit Serves the Mall and Major Uses

Parking Structures Feed into the Mall



The Mall Connects New Private Development

Design Principles and Dynamics of the Plan

The basic principle of the Plan is to use public investments in public facilities in a connected, mutually supportive way to produce an environment and investment climate conducive to large scale private investment in the Downtown and, thus, improve the City's tax base.

Public investment will be primarily in the area of transportation and movement systems. These are to be designed and located to produce a continuous and sequential chain of events and facilities which will allow people to go to and from their destinations in a convenient, pleasant, safe, visually coherent way.

The basic elements of the movement system are:

1 Rapid Transit

A rail, subway rapid transit line is a major feature of the Downtown Plan. It is intended to reduce automobile traffic to Downtown; provide at transit stops an exciting entrance into Downtown. The first installation of the system is the Buffalo/Amherst line. Ultimately the system is proposed to be completed by the addition of the Kenmore/Airport line.

2 Highways

The highway and expressway system maximizes access to Downtown and allows the relatively small number of drivers wishing to by-pass Downtown to do so easily. A depressed expressway between Elm and Oak Streets, originally proposed in the Niagara Frontier Transportation Study, is being re-examined. The Consultants recommend a surface facility.

3 Parking

New parking structures, built to keep pace with demand for space, are to be located to intercept Downtown-bound traffic before it penetrates the Downtown street network.

4 The Pedestrian Movement System and the Main Street Mall

The key organizational feature of the Downtown movement system is the Mall. It is the main connective element between rapid transit, parking, shopping, and offices as well as forming the major civic "place" for pedestrians in the City.

New private buildings would tie into the pedestrian movement system in order to preserve continuity in the Downtown pedestrian system.

Existing Functional Areas and Future Predominant Land Use Patterns

Downtown is presently characterized by a somewhat disconnected and discontinous pattern of uses. This applies particularly to the Main Street shopping core. Lafayette Square, Genesee Street and the Division Streets introduce wide breaks in the continuity of the shopping frontage in Main Street. Downtown frame uses, such as department store warehouses and other service activities preempt important and valuable sites and additionally reduce the potential for an inviting street quality, thus, inhibiting development.

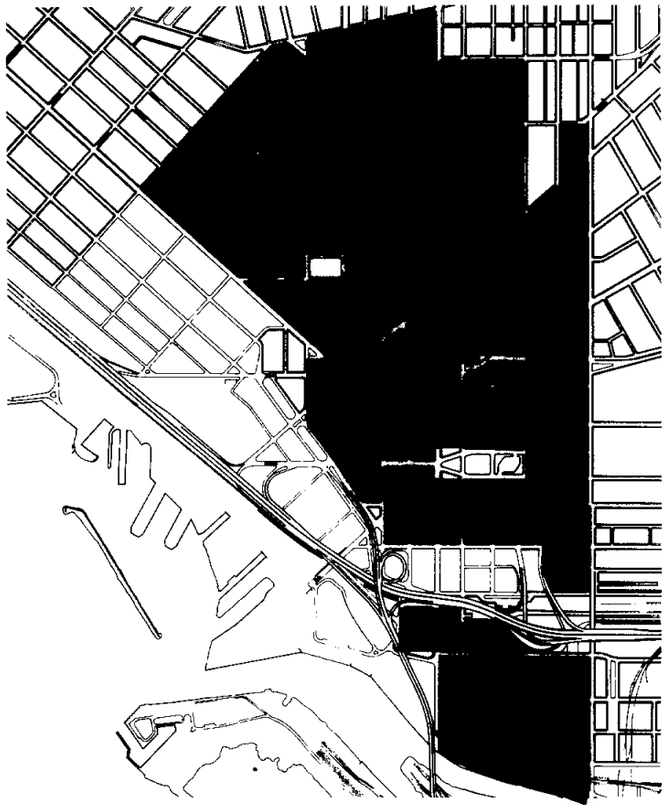
Public investment in the movement system will, however, produce a realignment of values so that sites which at present seem undesirable for development will become highly attractive in the future.

The future pattern of land uses will be much more compact and will tend to realign itself along more rational lines as a result of an integrated approach to public investment in elements of the movement system.

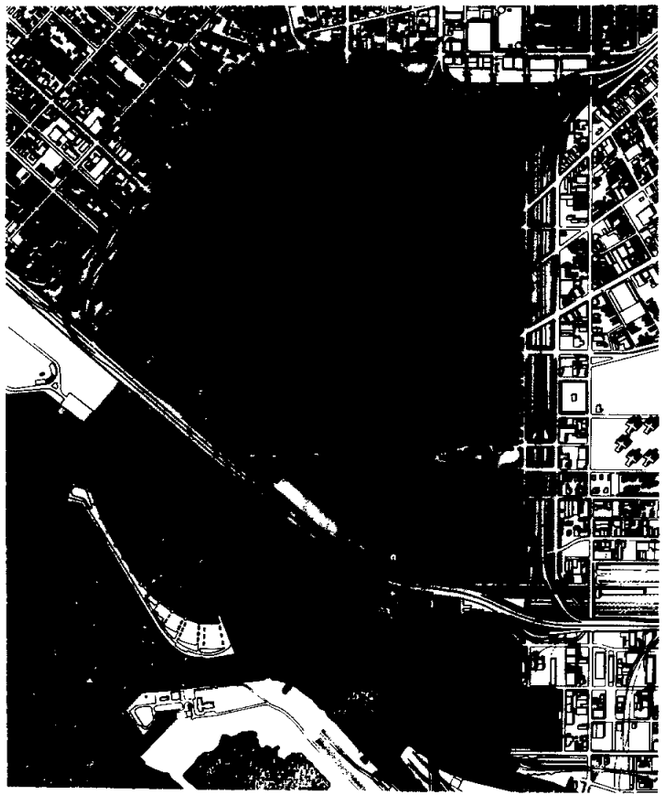
One of the central objectives of the Plan is to establish new land use patterns and strengthen existing ones, not through specification of what uses will go on what sites, but rather by guidance of the market mechanism by prudent public investment. There is, for example, no intention in the Plan of setting up prohibition or specification of certain uses on certain sites, but to rely on the market to determine the appropriate uses. The uses shown on various sites in the succeeding pages are not intended to restrict developers from proposing and carrying out alternate uses but rather to reflect what would appear to be marketable uses for those sites.

The Plan is intended to be highly flexible, to allow many activities to occur in the Downtown area, to be highly responsive to a particular developer's sense of what is marketable, and to provide a framework within which many opportunities are possible.

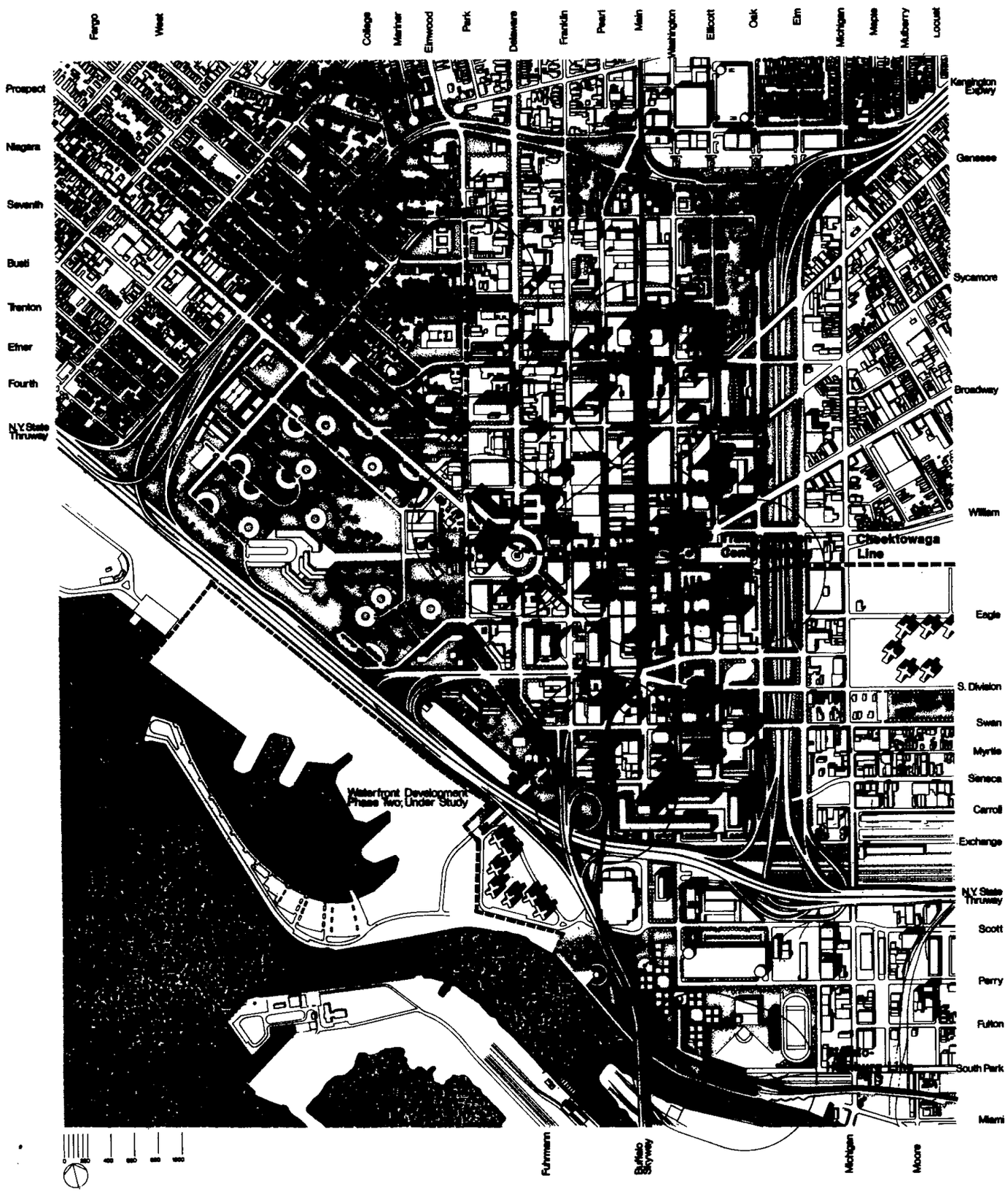
- Retail and Office Core
- Offices
- Entertainment & Retail
- Hotel & Visitor Facilities
- Mixed Uses; Offices, Services, Residential
- Residential
- Governmental
- Institutional, Educational, Health, Religious & Residentially Related Commercial
- Warehousing, Distribution, Wholesaling & Services



Existing Predominant Land Use



Predominant Land Use Concept Plan



The Public Development Framework: Transit and the Mall

— NFTA Proposed Rapid Transit Line

---- Potential Future Rapid Transit Line

— Bus Routes with Full Rapid Transit System

(=) Transit Station & 600′ Walking Radius

■ Main Street Mall

Rapid Transit and the Mall

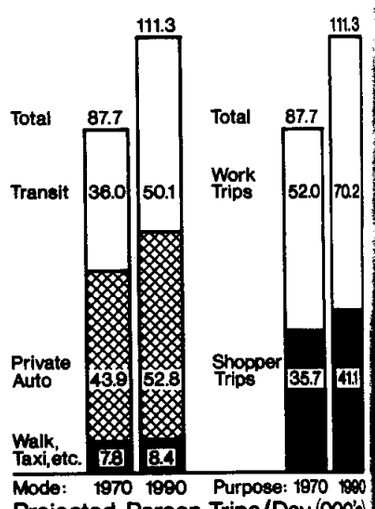
Two lines are proposed for a regional public rail rapid transit system. A rail system has the advantages of minimizing air pollution and maximizing peak hour capacity in the Downtown. It can be in subway in the downtown area, which allows the possibility of designing maximum amenity into the Main Street Mall. Further, it allows the line to be designed as *part of* the Mall.

The future second line, the Kenmore/Airport line, would cross the Buffalo/Amherst line in what is now Lafayette Square.

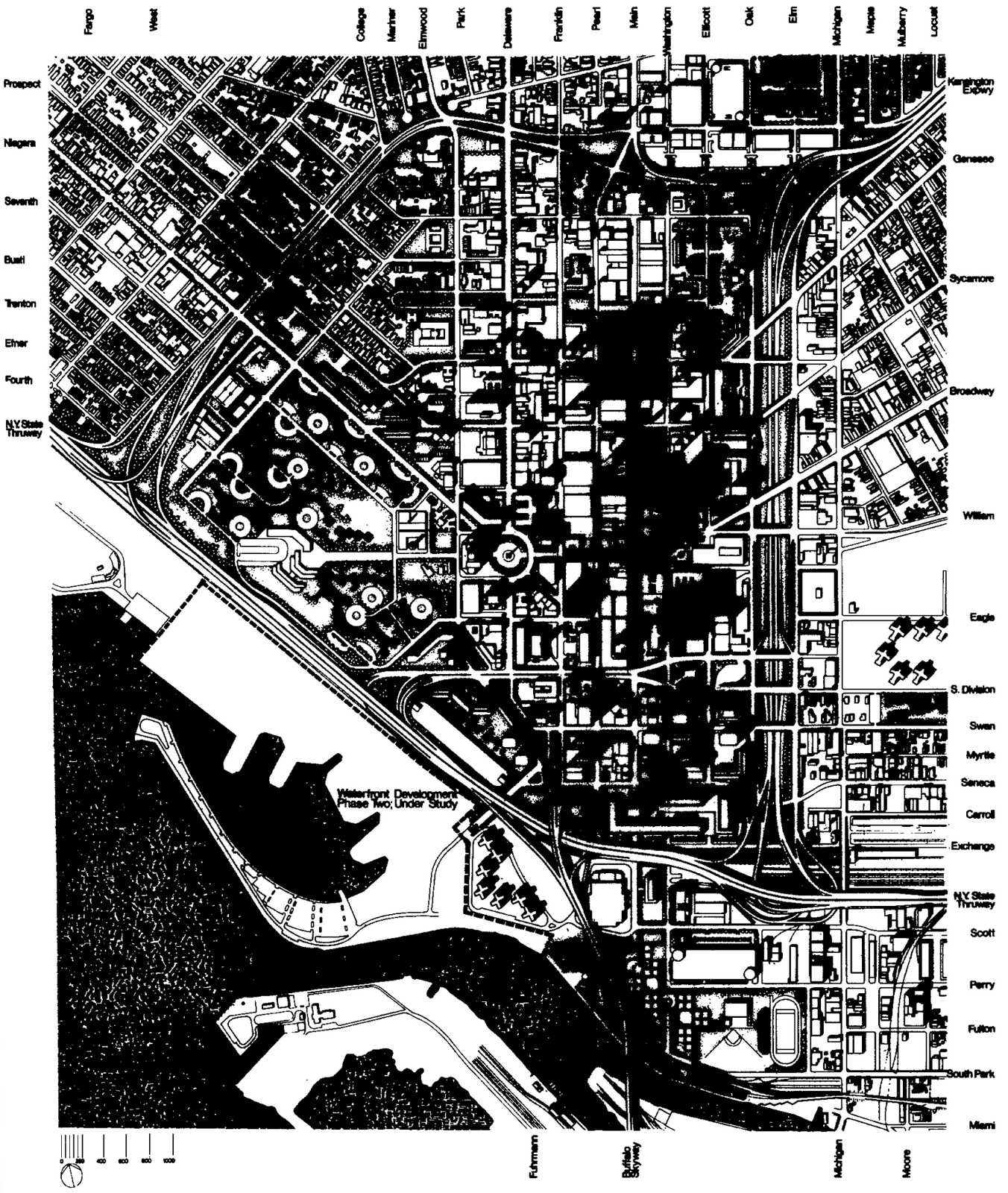
The stops on both lines serve the five major clusters of activities in the Downtown: North Main Street, Lafayette Square, South Main Street/Cathedral, the Community College and the Government Center.

The Mall will stretch from just north of Chippewa Street to Main Place Mall on the south. It will have extensions east and west on Huron Street, Court Street, Lafayette Square, and Eagle Street. The extensions will connect to the Convention Center, major off-street parking facilities, the transportation center, building lobbies, and stores. The Mall will be a covered all-weather facility, heated and air-conditioned.

Three subway stops will be within the Mall itself, two on the Buffalo/Amherst line: theater (between Chippewa and Huron Streets) and Lafayette Square, which also will be a stop on the Kenmore/Airport line.



Projected Person Trips/Day (000's) 1970-1990



Private Investment Opportunities: Retail

Retail Investment Opportunity Area

Main Street Mall

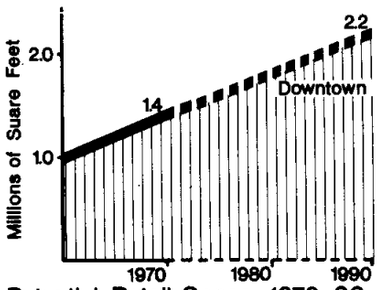
Retail Space

The Mall represents a major investment opportunity for retail investors in Downtown Buffalo. It provides a facility which ties together the downtown retailing function, overcoming the disabilities of discontinuity and vulnerability to weather presently characterizing Downtown as a shopping environment.

Mass transit consolidates the environment produced by the Mall by providing fast, easy access to Downtown from distant parts of the Region as well as the close-in areas of the City.

The qualities and amenities produced by these features will vastly improve the competitive position of Downtown with respect to other investment opportunities in the Region.

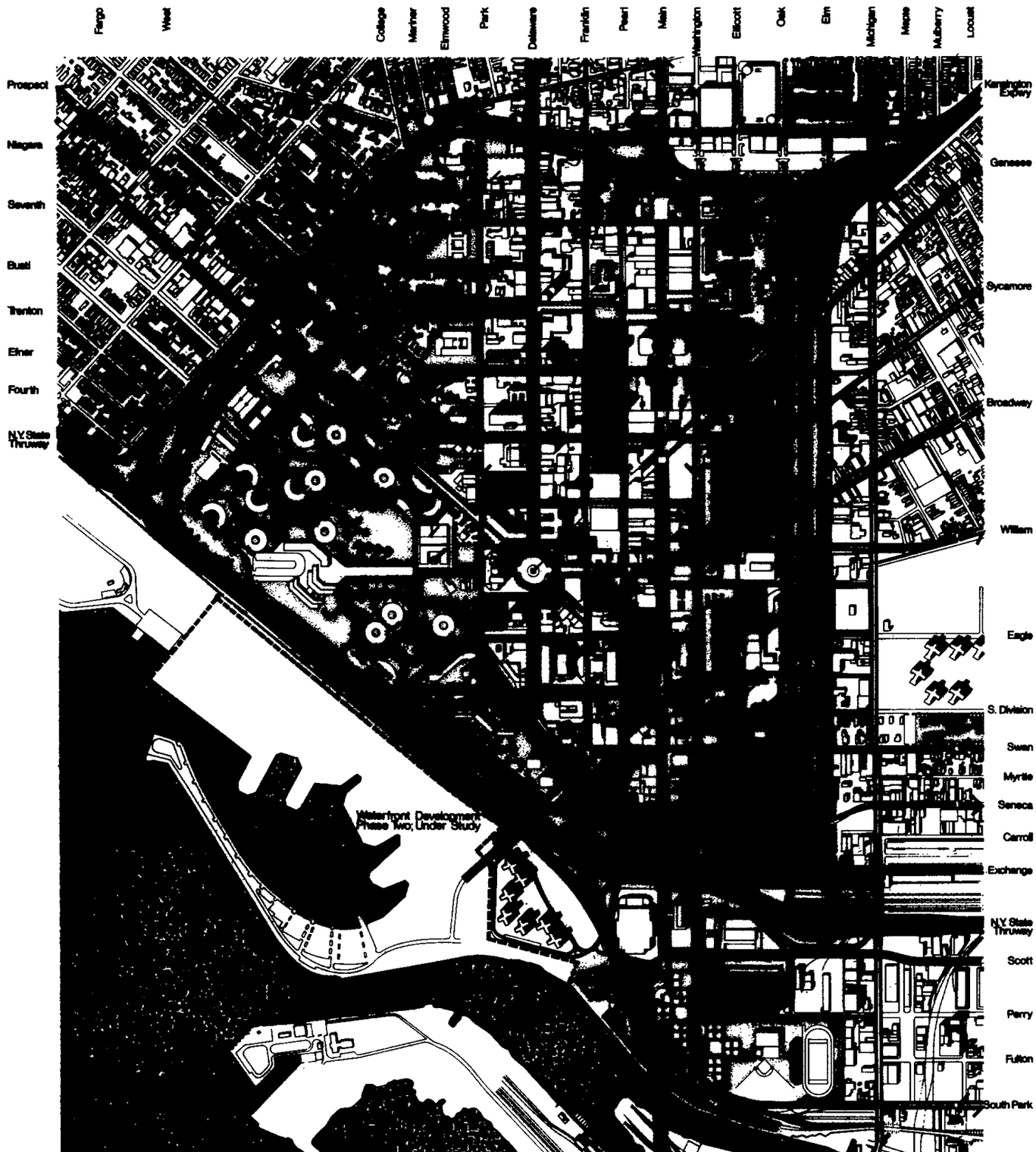
Retail investment opportunities in the Downtown area associated with the Mall are shown in the map at the left. It is important to understand that those areas shown as opportunity areas do not mean that existing facilities would necessarily be replaced, but that because of the improved environment, increased retail sales activity will induce improvements to occur primarily in the areas designated. These changes will happen mainly as a result of market action rather than governmental action.



Potential Retail Space 1970-90

Total Space 1990	2.2	Million Sq.Ft.
New Demand	0.8	
Replacement	0.3	
Existing to Remain	1.1	

Retail Space Development Program 1970-90



Public Development Framework: Streets and Parking

- Limited Access Expressways
- Major Arterials
- Collector/Distributor Streets
- Local Streets
- Off-Street Parking Facilities

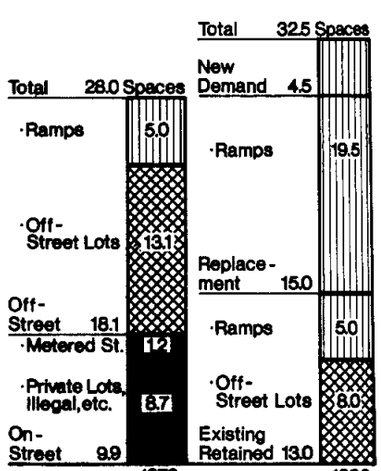
Streets and Parking

Changes in the downtown environment brought about by the construction of the Mall and mass transit will be reinforced by changes in the street pattern and additions to the off-street parking supply. The primary purpose of these facilities is to serve downtown activities. The intention is to avoid the tendency for traffic improvements to obliterate the very uses they are meant to serve. It does not make it easy and convenient for *all* possible movement to occur in Downtown.

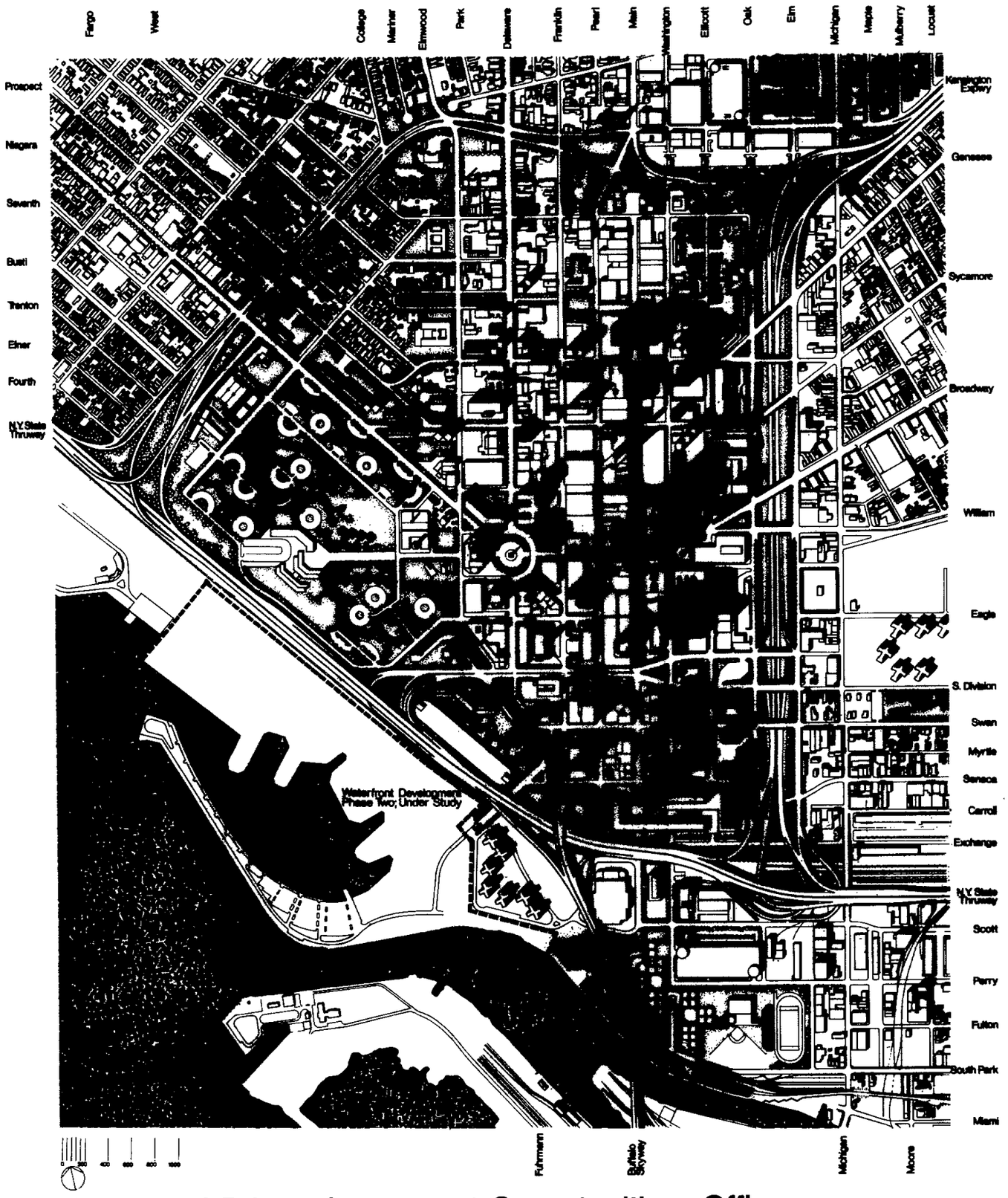
Crosstown through traffic is confined to two channels. It is expected that the through trip drivers will go *around* Downtown and those bound *to* Downtown will be siphoned off into parking structures prior to penetrating deeply into the core area street system. This principle is used to produce a traffic-free pedestrian precinct in the retail core.

The Elm-Oak Expressway as originally proposed in the Niagara Frontier Transportation Study provides for an excess capacity for through traffic. An at-grade facility might serve as well with less cost to the public.

Parking structures have been shown on locations peripheral to high value CBD sites. These are suggested locations to demonstrate the locational principle for future parking supply.



Projected Parking Spaces (000's) 1970 - 90



Public and Private Investment Opportunities: Offices

Private or Public Office Investment Opportunity

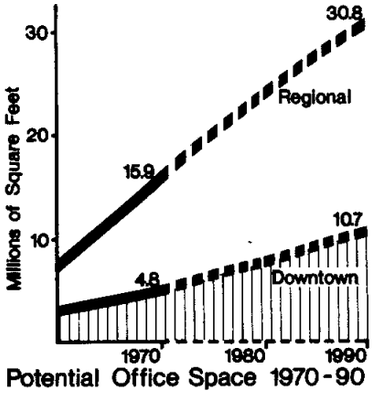
Main Street Mall

New Office Space

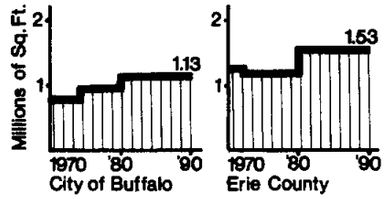
Sites for new office buildings in the Downtown are shown clustering in four major areas: north Main Street; Central Main Street; south Main Street and around City Hall. In this area new office building development is expected to be predominantly governmental.

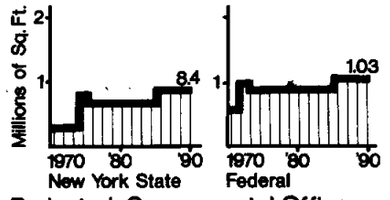
It is expected that the market will govern the location of specific sites. The reason for showing locations is to demonstrate that a visually coherent design for Downtown is possible. Developers may find it expedient to do something else under the dictates of a specific situation, but the Plan shows that the opportunity exists. A site can be enhanced by relating the building to the downtown pedestrian system.

The location of new governmental office space follows the trend set by recent new buildings. This trend has begun to establish a major regional government center in Downtown including Federal, County and City functions.

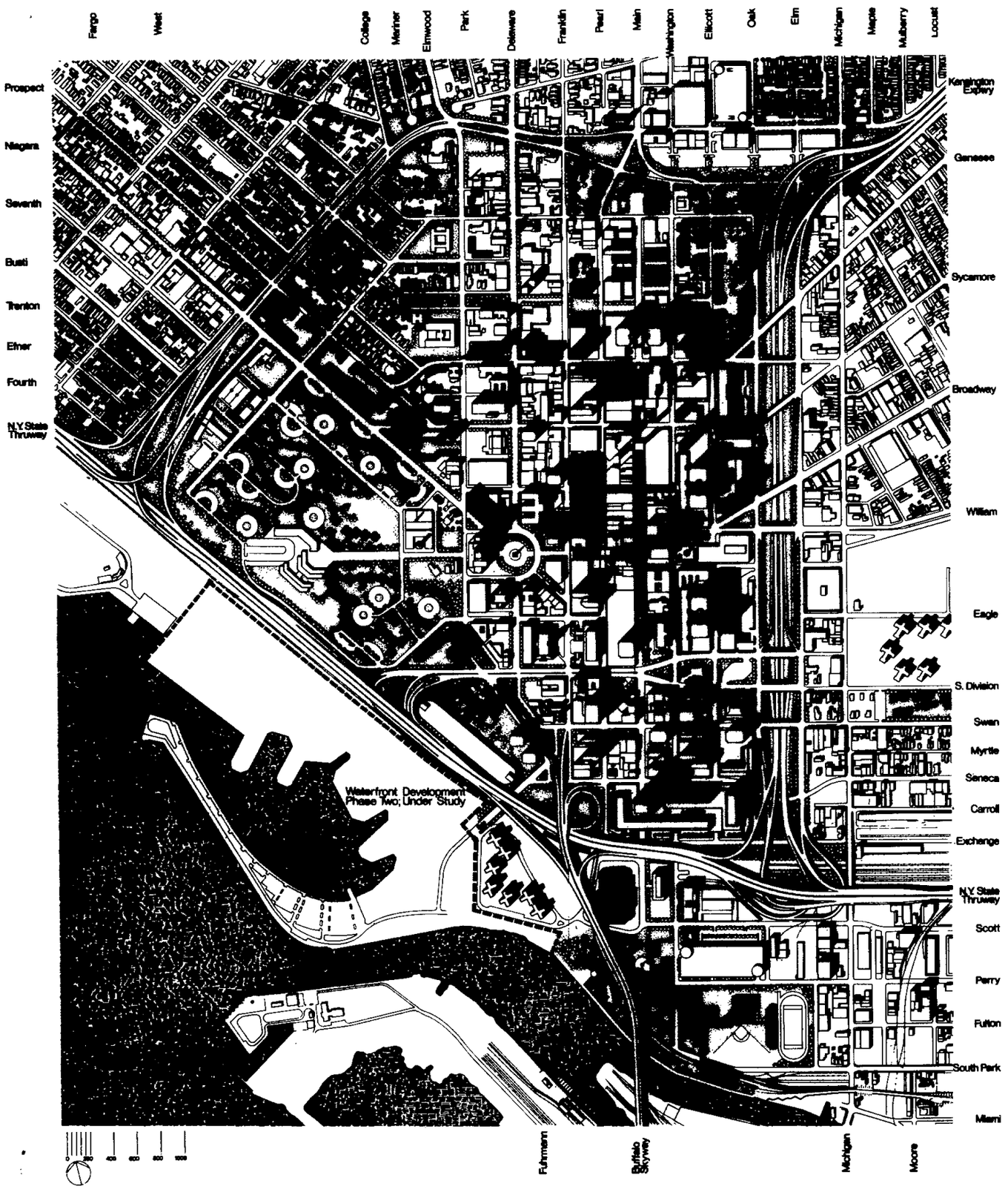


Potential Office Space 1970-90





Projected Governmental Office Space 1970-90



Special Activities in the Regional Center

- Hotel/Motel Development Opportunity
- Commercial/Entertainment Development Opportunity
- Public Facilities
- Residential Development Opportunity

Convention Center, Community College, Hotels, Housing, Transportation Center

A number of special activities are planned in Downtown appropriate to its role as the regional center. The basic objective, as with most of the other downtown elements capable of response to the initiative of public policy, is to assemble in Downtown a group of activities and functions which reinforce its strength as the cultural and administrative center of the Region.

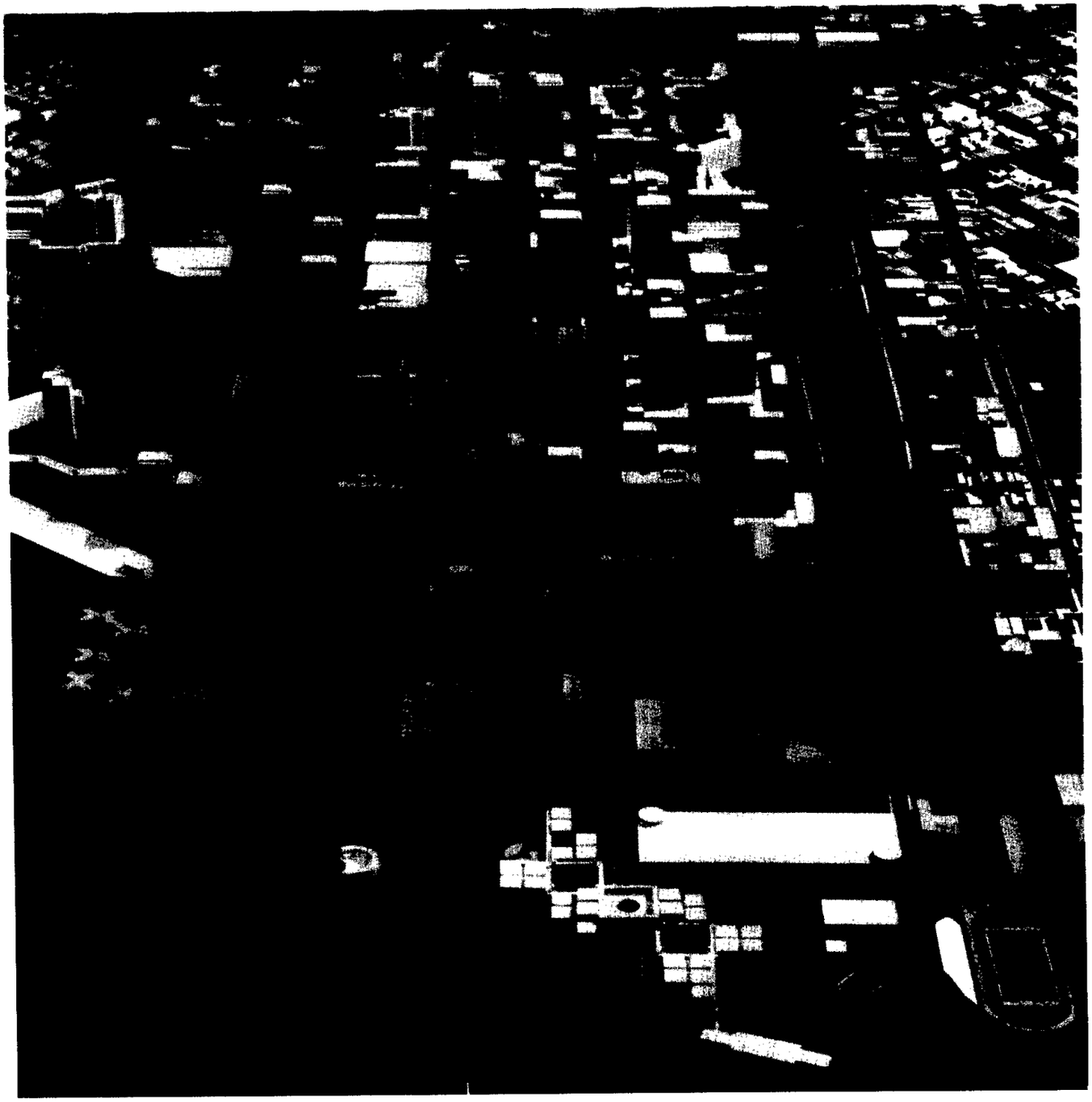
One of the most important of these is the proposed Convention Center to be located in the block bounded by Court, Franklin, Mohawk and Pearl Streets. This strategic location offers immediate access to the Statler Hotel, the Court Street Parking Ramp, the Mall and the mass transit system.

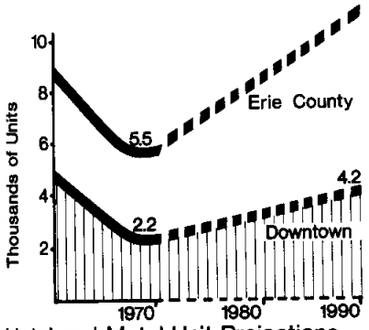
The new Community College sited in the South Main Street area is an important addition to Downtown. Its convenient location will allow after hours and evening course studies to be pursued by the downtown work population, the largest single work force concentration in the Region. Conversely, work-study course arrangements can be most easily accommodated in this location for full-time Community College students. The convenient adjacent stop on the mass transit system will significantly reduce parking demand and help reduce traffic volumes on the highway system.

New hotel demand will be generated by the Convention Center. The inventory of available hotel rooms has declined significantly in recent years in Downtown because of strict code enforcement. This demand for hotel space is expected to result in two or three first-rate hotels in Downtown by 1980.

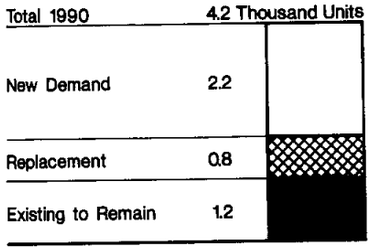
As the revitalization of Downtown occurs, it will become an attractive place to live. Increasing numbers of people will begin to seek living space in apartments or rehabilitated housing in the Downtown area.

A new transportation center is to be built between the Elm-Oak Expressway and the Mall on the block bounded by Ellicott, North Division, Oak and Clinton Streets.





Hotel and Motel Unit Projections
1970-90



Hotel and Motel Development
Program 1970-90

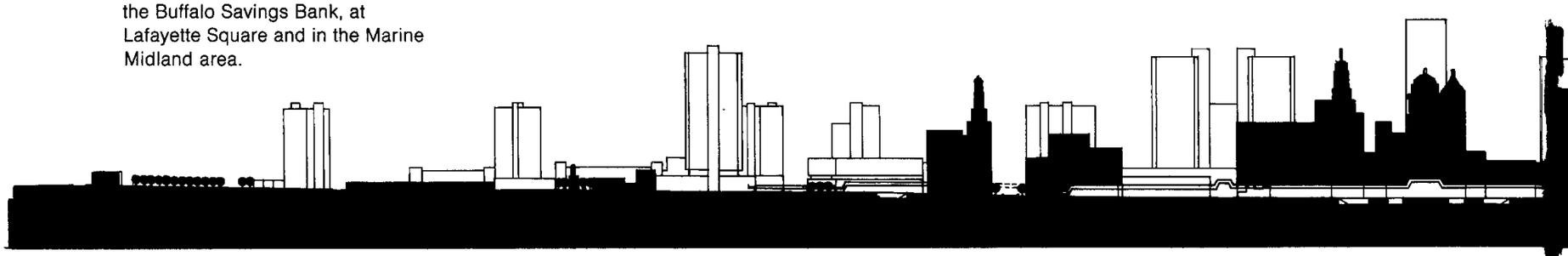
Present Skyline

The profile of the Downtown taken through Main Street looking east is being transformed by the rising structure of the Marine Midland building at Main and Swan Streets. At 40 stories it will be the tallest structure on the Niagara Frontier.

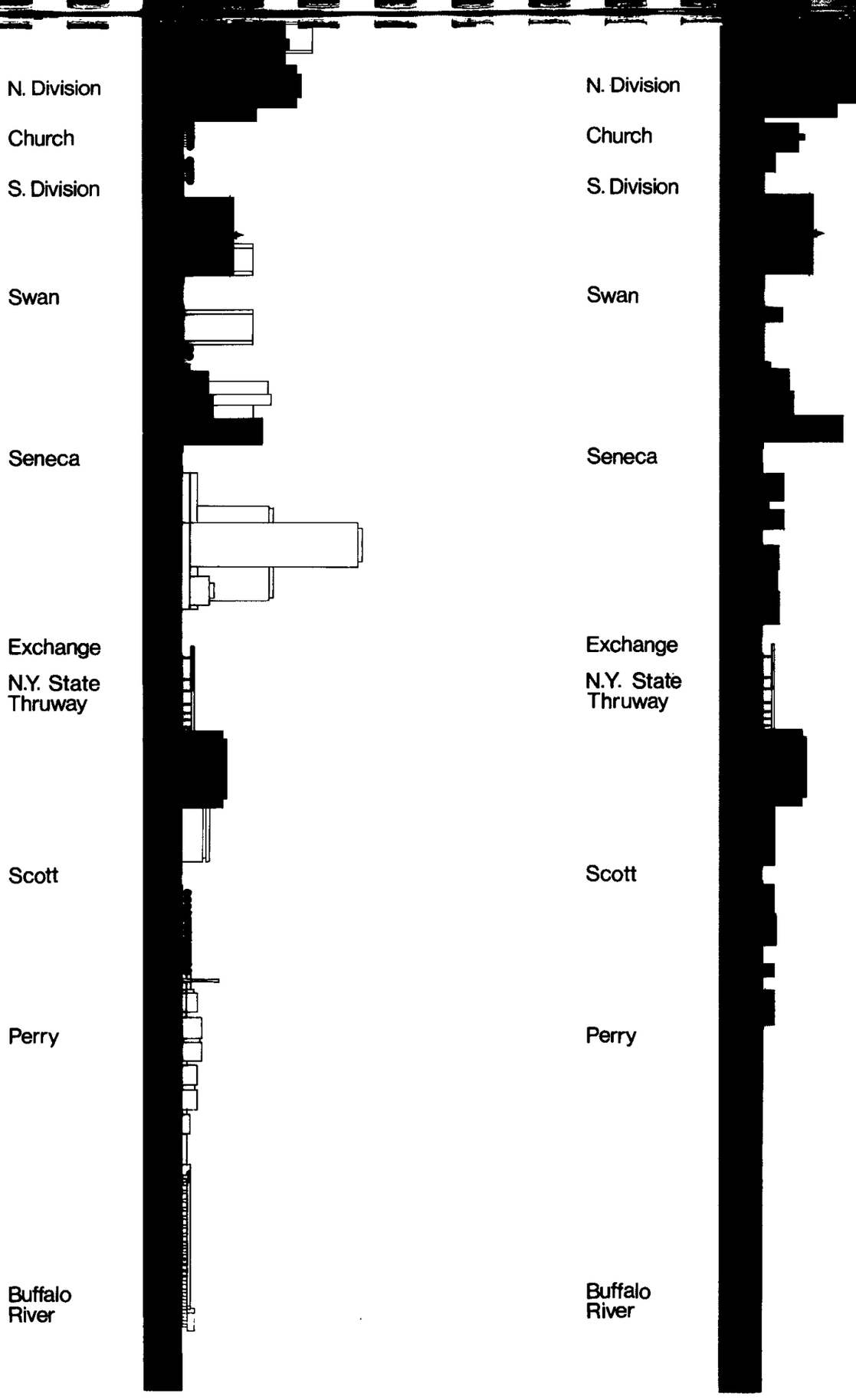
Goodell Tupper Chippewa Huron Mohawk Broadway Lafayette Sq. Clinton

Future Skyline

The future skyline will see clusters of high rise office buildings develop along Main Street with concentrations just to the north of the Buffalo Savings Bank, at Lafayette Square and in the Marine Midland area.



Goodell Tupper Chippewa Huron Mohawk Broadway Clinton


N. Division
Church
S. Division
Swan
Seneca
Exchange
N.Y. State Thruway
Scott
Perry
Buffalo River
N. Division
Church
S. Division
Swan
Seneca
Exchange
N.Y. State Thruway
Scott
Perry
Buffalo River

2 Main Street Mall

A Policy Statement by the Mall Committee

There is only one realistic alternative for retailing activities in Downtown Buffalo. That is: to continue to be successful, Downtown must be prepared to offer to shoppers an environment which not only affords the amenities and features available to suburban shopping center patrons of convenience, ease of parking and access, and comfortable all-weather environment, but it must and can offer more. Downtown inherently is able to offer all of the one-of-a-kind variety that suburban malls are not in a position to give to their users. This feature of Downtown in its role as the center of a great metropolitan region can easily be exploited to restore Downtown to its rightful place. It is the firm belief of this Committee that through concerted action by the City and its downtown leadership a center promising a level of physical amenity infinitely superior to that found elsewhere in the Region can be produced in the next ten years.

The Mall will be its central feature. It will provide the setting for a variety of stores, shops, restaurants, hotels, and other facilities such as the projected new Convention Center available on a scale and concentration not possible anywhere else in the Region.

The members of the Main Street Mall and Parking Committee unanimously accepted the premise contained in the Interim Report CBD Plan that the Main Street Mall was a key element in the Downtown Concept Plan. Wallace, McHarg, Roberts and Todd designate it as one of the key features in overall development, and Larry Smith and Company, Inc. label it as *the* key element in the continued improving performance of the retail section.

The Committee studied carefully the plans for the physical structure of the Mall as prepared by the Consultants. The relationship of the Mall to existing buildings, to proposed new construction within and outside of the Mall, and, particularly, to the proposed rapid transit system are matters of prime importance. The preliminary plans have flexibility to attach the roof of the Mall to existing buildings, and to premit erection of new ones before, during or after the Mall construction. Most importantly, final plans for the Mall would go forward together with final planning of the subway section in the same area so that construction and use may be properly tied together.

Through a Finance Committee jointly appointed with the Chairman of the Transportation Committee, the various methods suggested by the Consultants for the financing of Mall construction were examined as to the feasibility and practicality of their use in this particular case. For the many reasons set forth in the Finance Committee's memorandum of November 4, 1970, this Mall and Parking Committee determined that it must recommend that the Mall be constructed with City funds, to be repaid from future tax revenues. Both Wallace, McHarg, Roberts and Todd and their economic advisors, Larry Smith and Company, project that the proposed Downtown Development Plan will provide increased sales and property taxes to pay the financing cost several times over.

The Committee's study of the problems of management and maintenance of the Mall suggested that the best interests of both the City and the business community would be served by the formation and funding of a "not-for-profit" corporation. It is proposed that the business community, with the backing and support of the Greater Buffalo Development Foundation, finance such a corporation to assist the City in implementing the planning and building of the Mall and to manage it after completion under a contract with the City. It is also suggested that the management of the Convention Center and dual promotion of both the Convention Center and the Mall be undertaken by this corporation.

An outstanding retail Mall and a fine convention facility together with the anticipated rapid transit system should provide incentives for the projected new private investment in the CBD as set forth in the Consultant's Report.

The parking to meet the projected requirements in the overall CBD can and should be carried out by the City through its Board of Parking under the "Buffalo Plan of Parking", the finest in the Country.

The Mall and Parking Committee believes that the adoption and carrying out of the objectives set forth in the Consultant's CBD Plan are essential to the continued improvement of the downtown area which is the life blood of the City. The environment must be further enhanced and the tax base greatly increased or the City faces a dismal future.

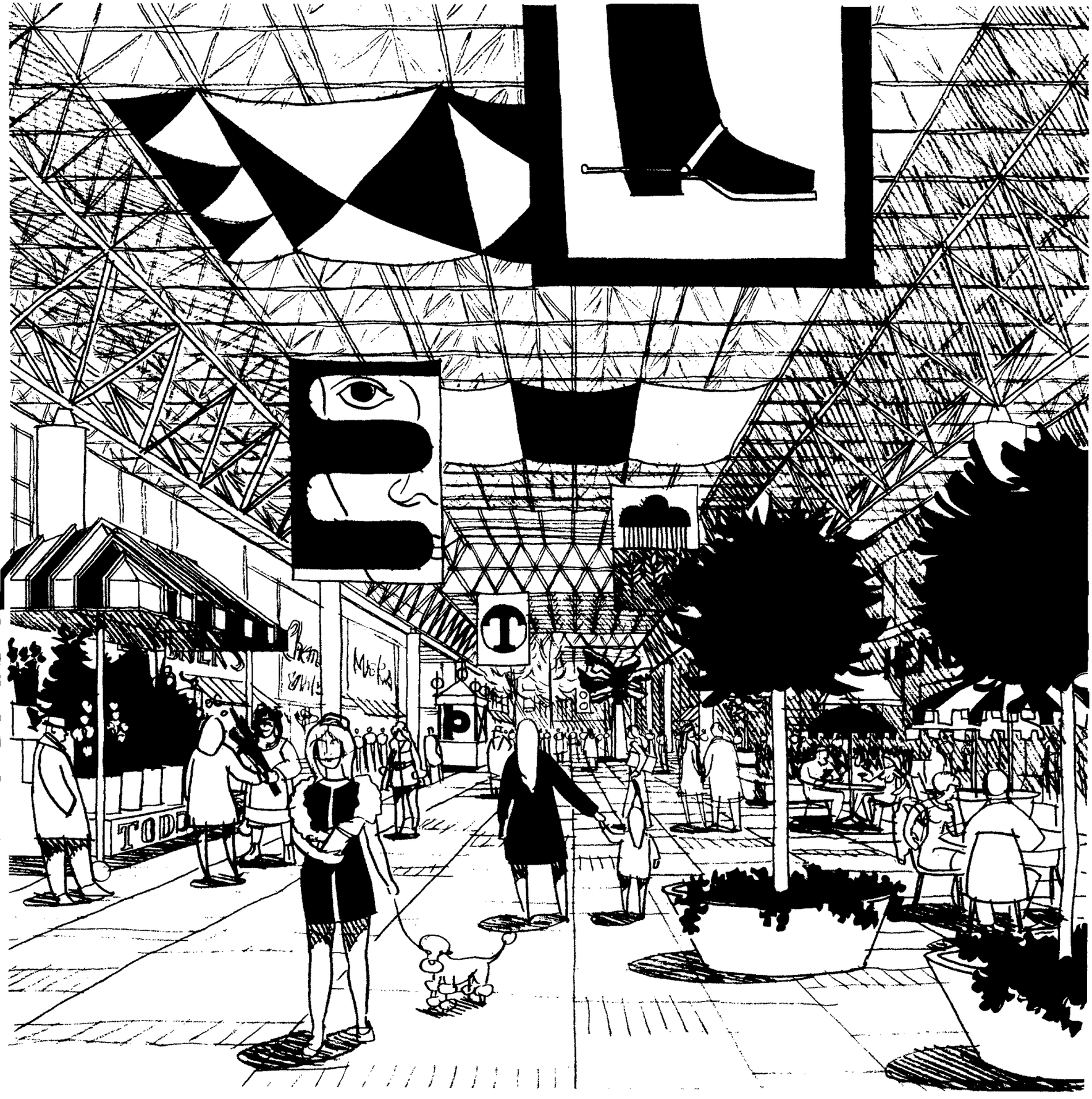
Charles Diebold, III; Chairman
Robert B. Adam
Louis L. Berger
William E. Goechll
William H. Harder
David J. Laub
William L. Smith
Harlan J. Swift

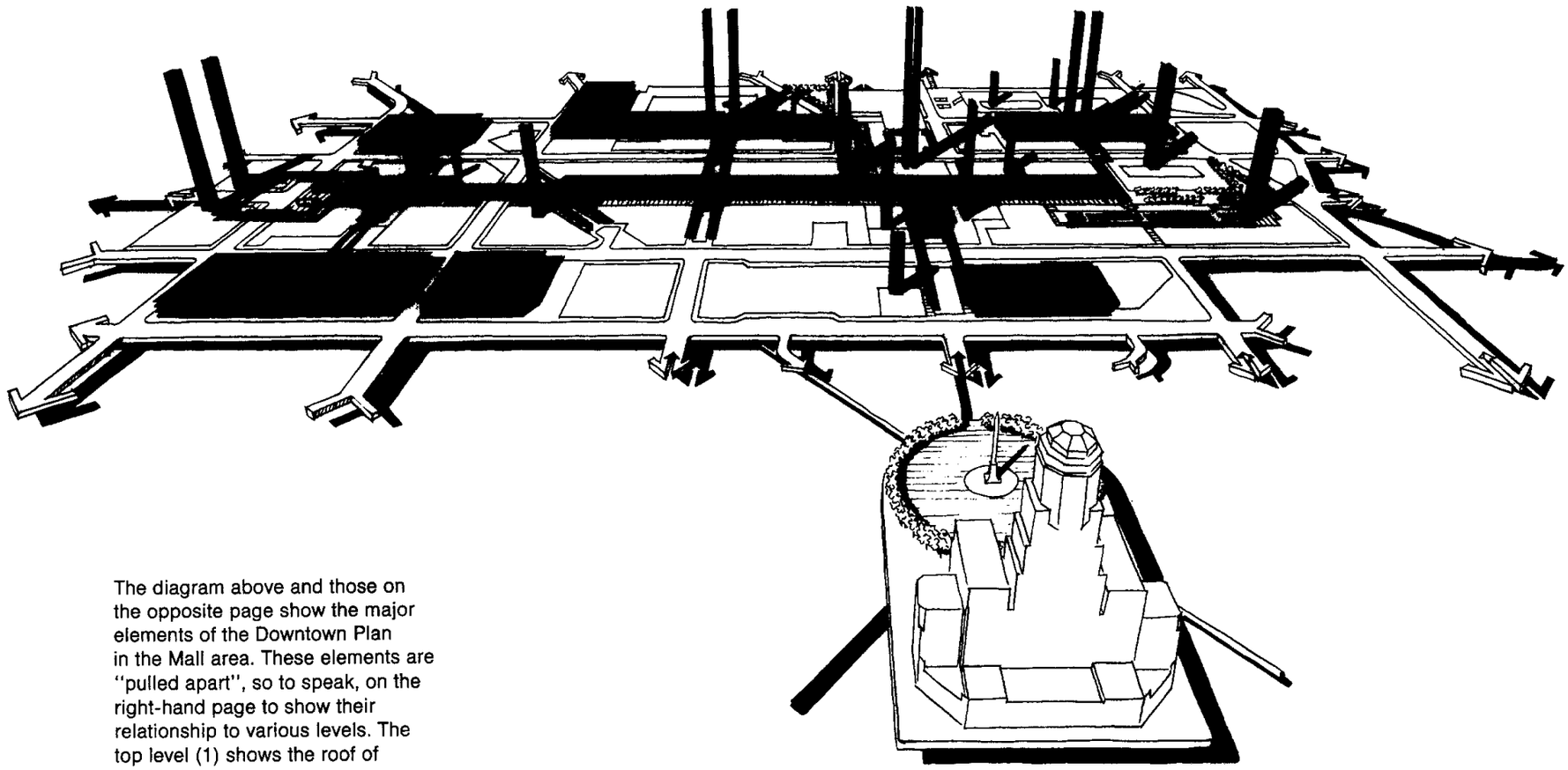
Principles and Objectives

The Mall design is based on the principle that, if an entirely new environment is created Downtown, the retail growth now being siphoned off to regional shopping centers can be recaptured Downtown. The first question is, of course, whether Downtown can support the necessary investment required to produce such an environment. The answer, after exhaustive investigation, is that it can be supported by allocation of a portion of the increased tax revenues gained if Downtown captures only the present proportion it now represents of total regional retail and office space of expected new regional growth. This is a very modest goal, indeed. There is every reason to believe that it can do significantly better than this if the environment produced is markedly more attractive than that managed by competitive regional shopping centers. Again, this objective does not seem unduly difficult to accomplish. Further, if access to Downtown is maximized, the competitive advantage would be maintained easily, particularly since the variety of goods and services offered downtown is bound to be more extensive than that offered elsewhere.

The type of facility envisioned is a covered, skylit, air-conditioned and heated structure. It will be light and airy with planting, paving, benches, small convenience shops, adequate security, and police protection from parking space to destination or from transit car to destination (a service not possible in the present physical arrangement of Downtown).

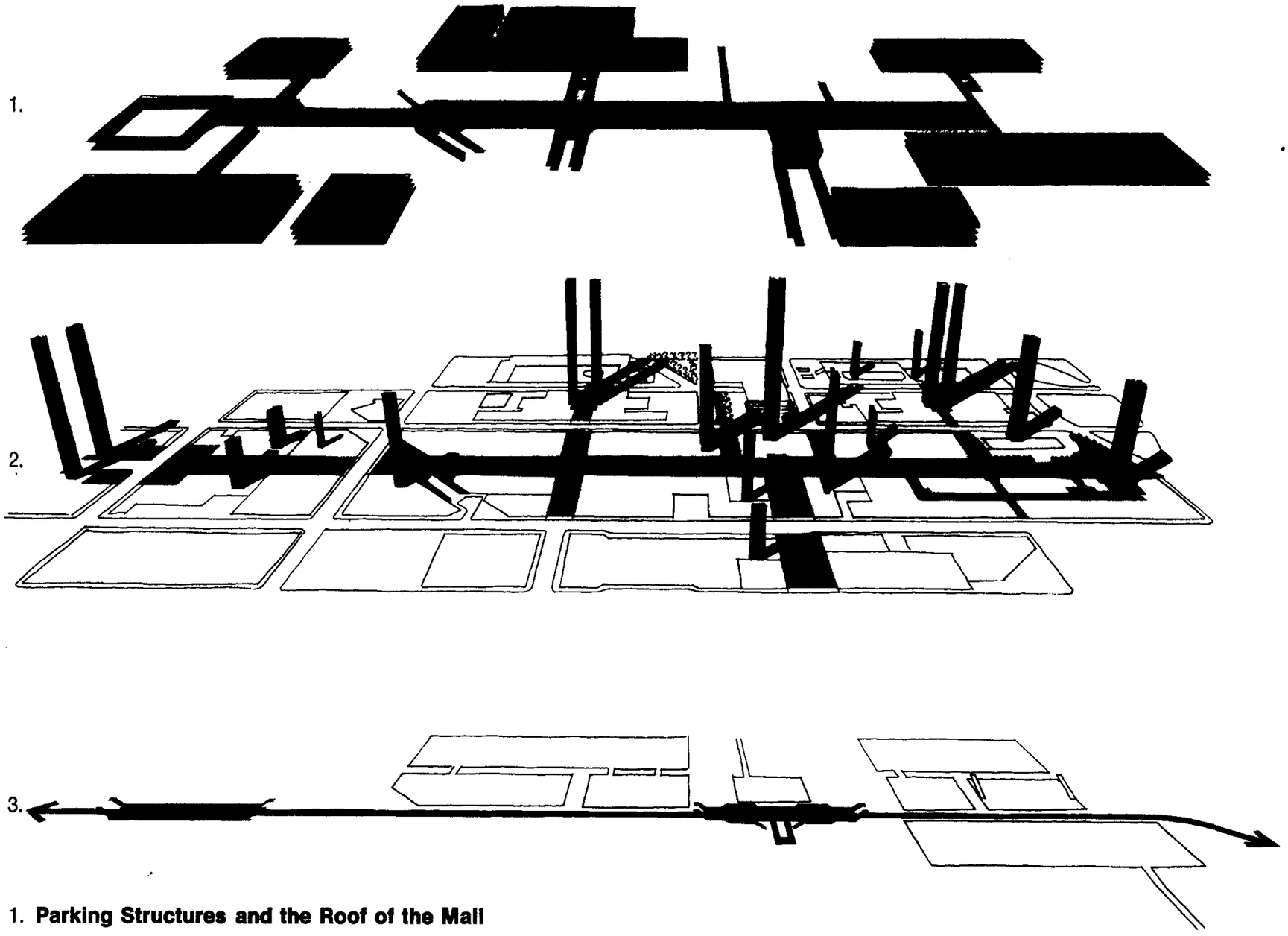
The cost of such a structure will be about $12,000,000 in 1975 dollars to be paid for by a general obligation bond issue.





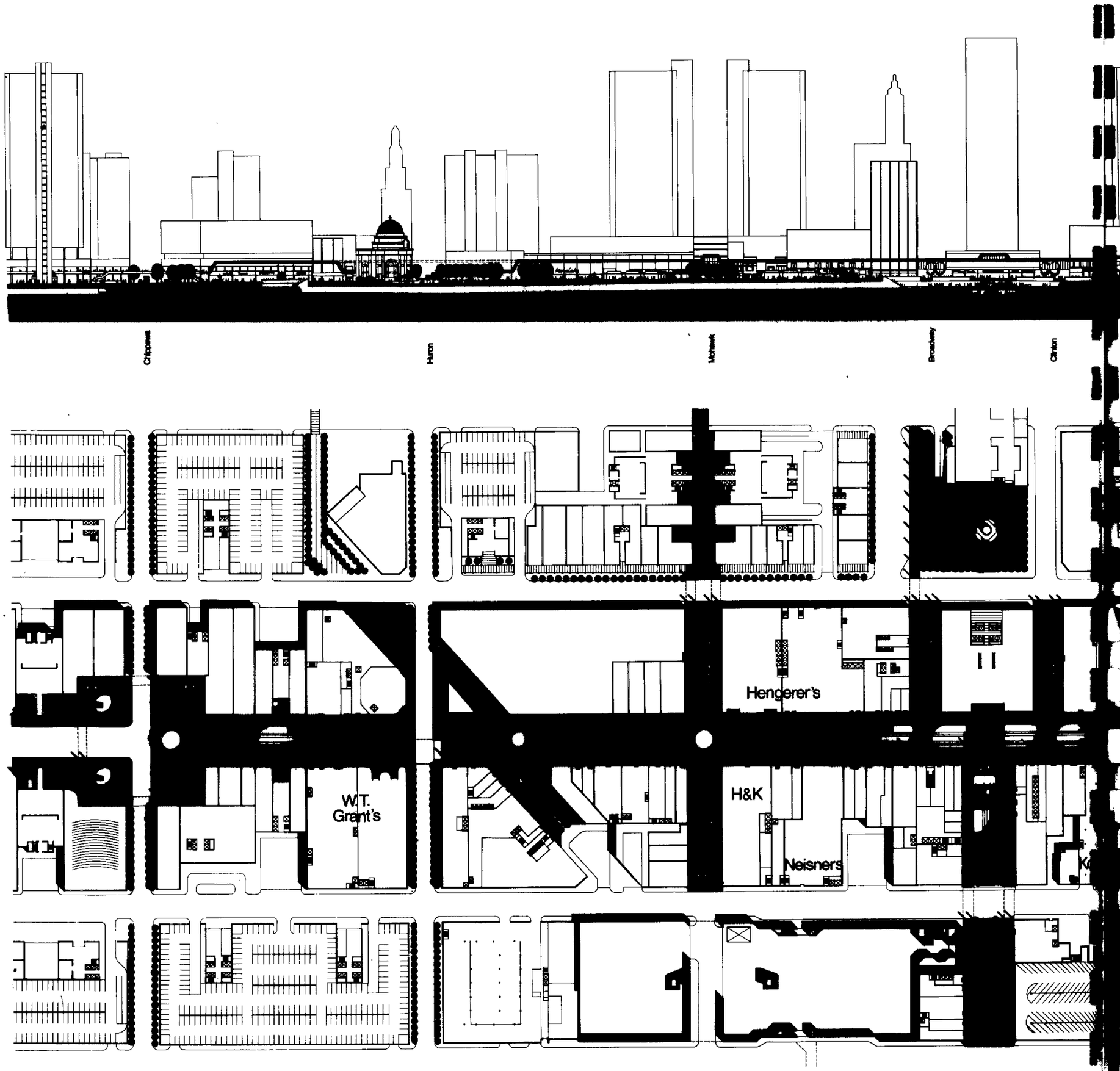
The diagram above and those on the opposite page show the major elements of the Downtown Plan in the Mall area. These elements are "pulled apart", so to speak, on the right-hand page to show their relationship to various levels. The top level (1) shows the roof of the Mall and its connection to peripheral parking structures. The second level (2) shows the Mall level which is presently the ground and street level and the connections with office lobbies and stores. The third level (3) shows the Buffalo/Amherst subway line lying immediately below the street surface. The bottom level (4) shows the Kenmore/Airport line passing under the Buffalo/Amherst line and its stations at Lafayette Square and the transportation center.

The diagram above puts all these levels together as a composite to show the interlocking nature of the various elements of the Plan.

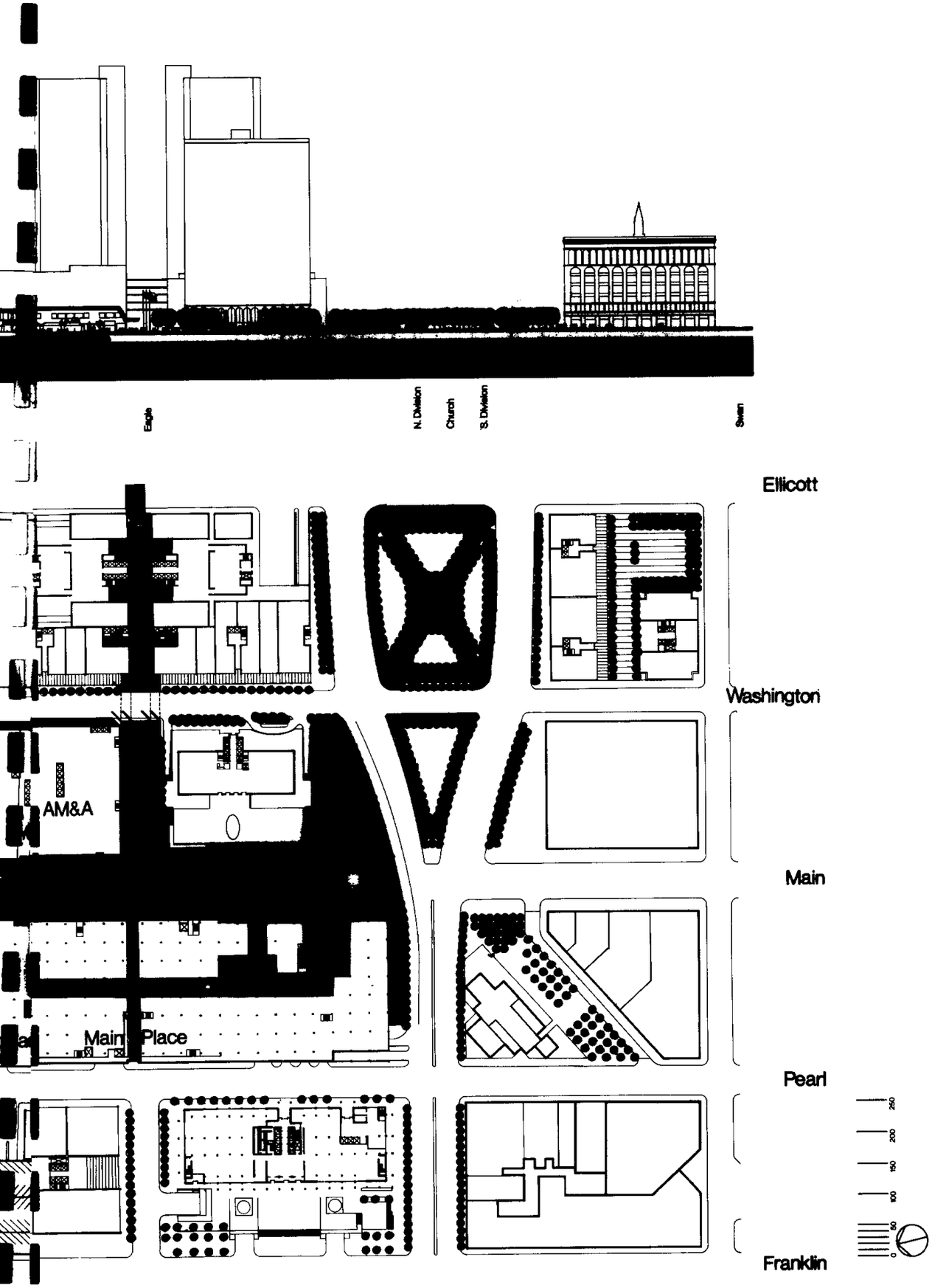


1. **Parking Structures and the Roof of the Mall**
2. **The Mall Level Showing Vertical Elevator Towers, Lobbies and Stores**
3. **Buffalo/Amherst Subway Line Under the Main Street Mall**
4. **Kenmore/Airport Line Under Court Street**

Composite Diagram of All Major Levels
in the Main Street Mall Area



22 **Main Street Mall Street Level Plan / Section Through Main Street**



The Main Street Mall

The Plan at the left and the section above give a detailed view of the nature of the Mall along its entire length from Chippewa Street to the Division Streets Park. Main Street will be closed from North Division to Huron Street. An underpass will allow unimpeded pedestrian traffic flow from Chippewa to North Division Street. Mall extensions on Court and Eagle Streets will extend the pedestrian precinct one block on either side of Main Street to Pearl and Washington Streets. Main entrances to the Mall will be from Pearl and Washington Streets. Covered grade crossings will attach extensions east on Eagle and Mohawk Streets to parking facilities and new office building lobbies. The Eagle Street extension will cross over Ellicott Street on a bridge to the proposed new transportation center.

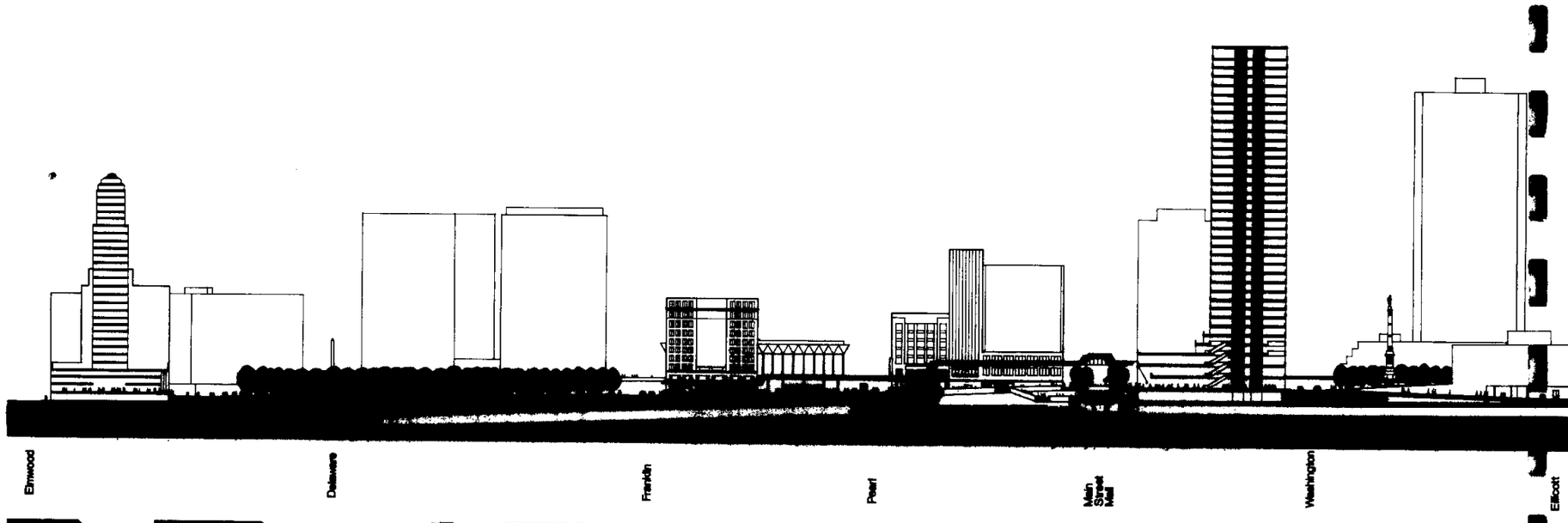
An extension west on Court Street will provide a direct connection between the Convention Center and the Mall.

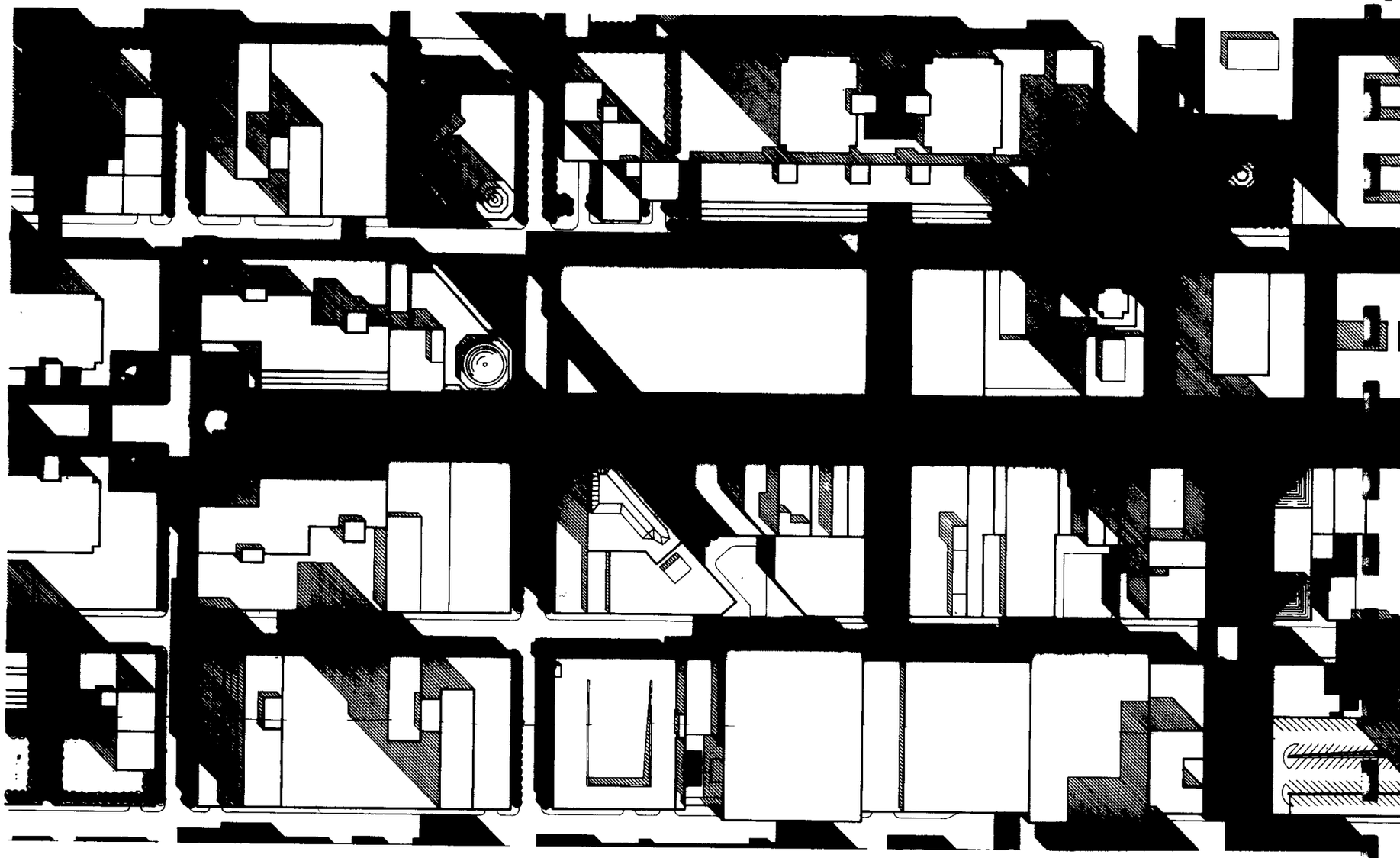
The roof structure will cross the intervening streets where the Mall continues from one side of the street to the other. At Eagle and Washington Streets, for instance, the roof of the Mall will continue right across the street so that pedestrians can cross the street under cover even in bad weather.

The structure will be made as a space frame supported by columns spaced on fifty-five foot centers. This device will allow the structure to be extended in several directions without altering the basic structural module.

The Mall extensions on side streets are designed as skylit arcades on both sides of the former street and open on one side. The arcades will open toward what was previously the cartway of the old street. The paving will be removed and the street filled with trees and planting, thus adding badly needed relief of park space in the Downtown Core.

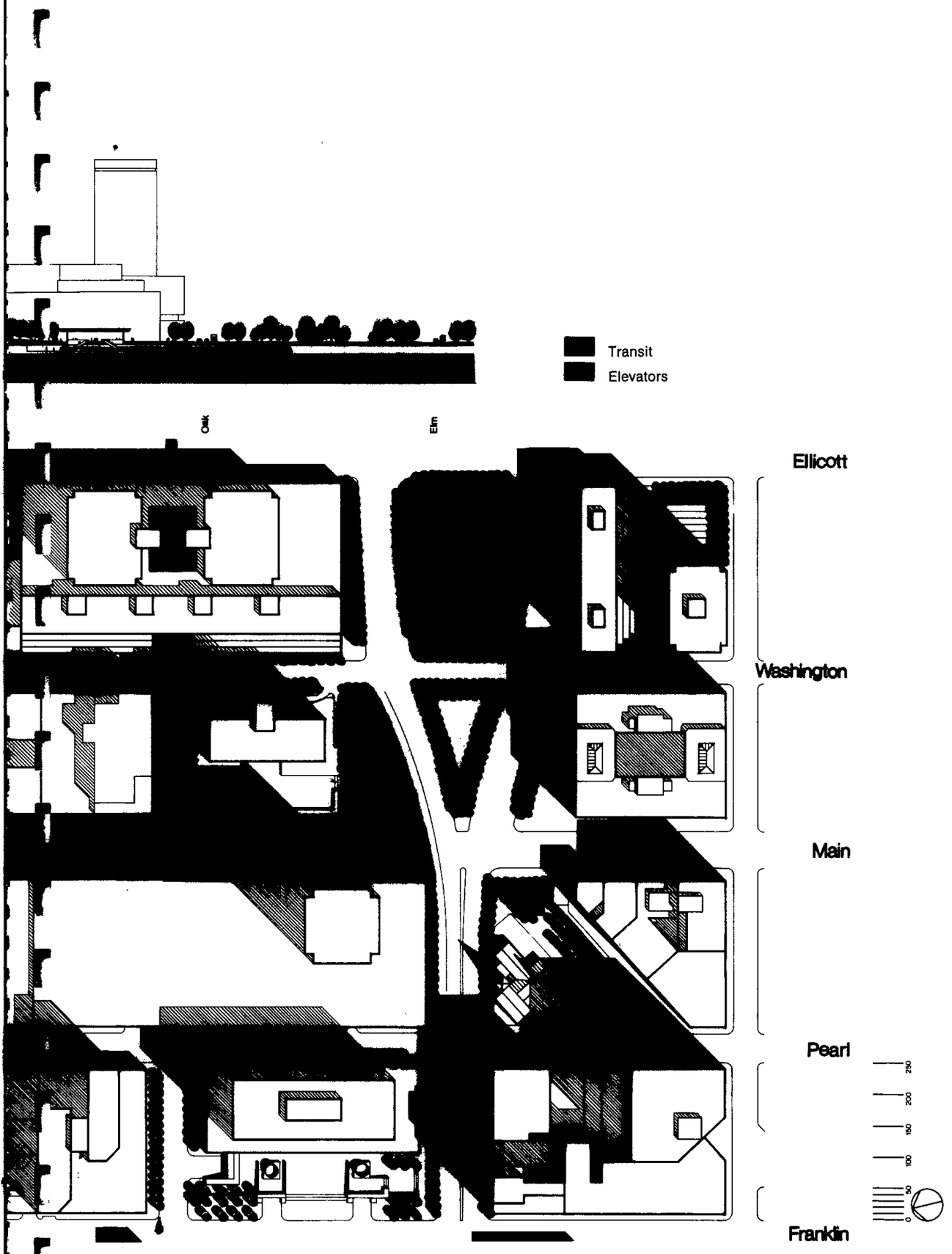
At the southern end the Mall will join directly to the Main Place Mall, thus incorporating Main Place into the downtown pedestrian system.





Main Street Mall Roof Level Plan / Section Through Court Street

Enclosed Mall and Arcades
Outdoor Plazas and Pedestrian Ways

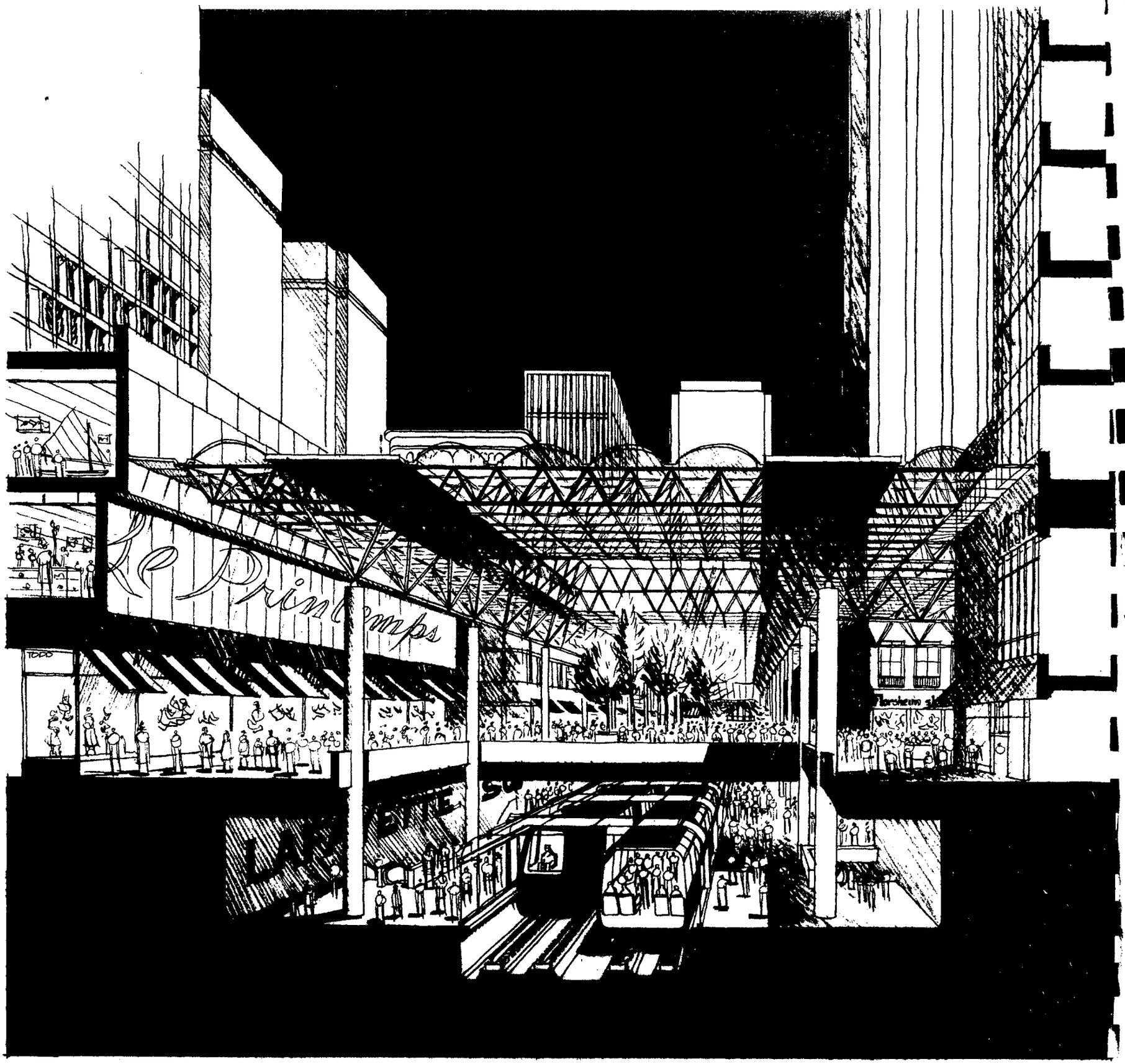


The plan and section at the left show the roof of the Mall and the section through Court Street and Lafayette Square looking toward the north.

The section shows the stations at Main Street with the Kenmore/ Airport Line tube shown in longitudinal section and the Buffalo/Amherst Line tube shown in transverse section, with Main Street Mall just above it. The main entrance of the new Convention Center shows just to the left of Pearl Street. This section clearly shows the direct connection of the Convention Center with the Mall and the mass transit lines.

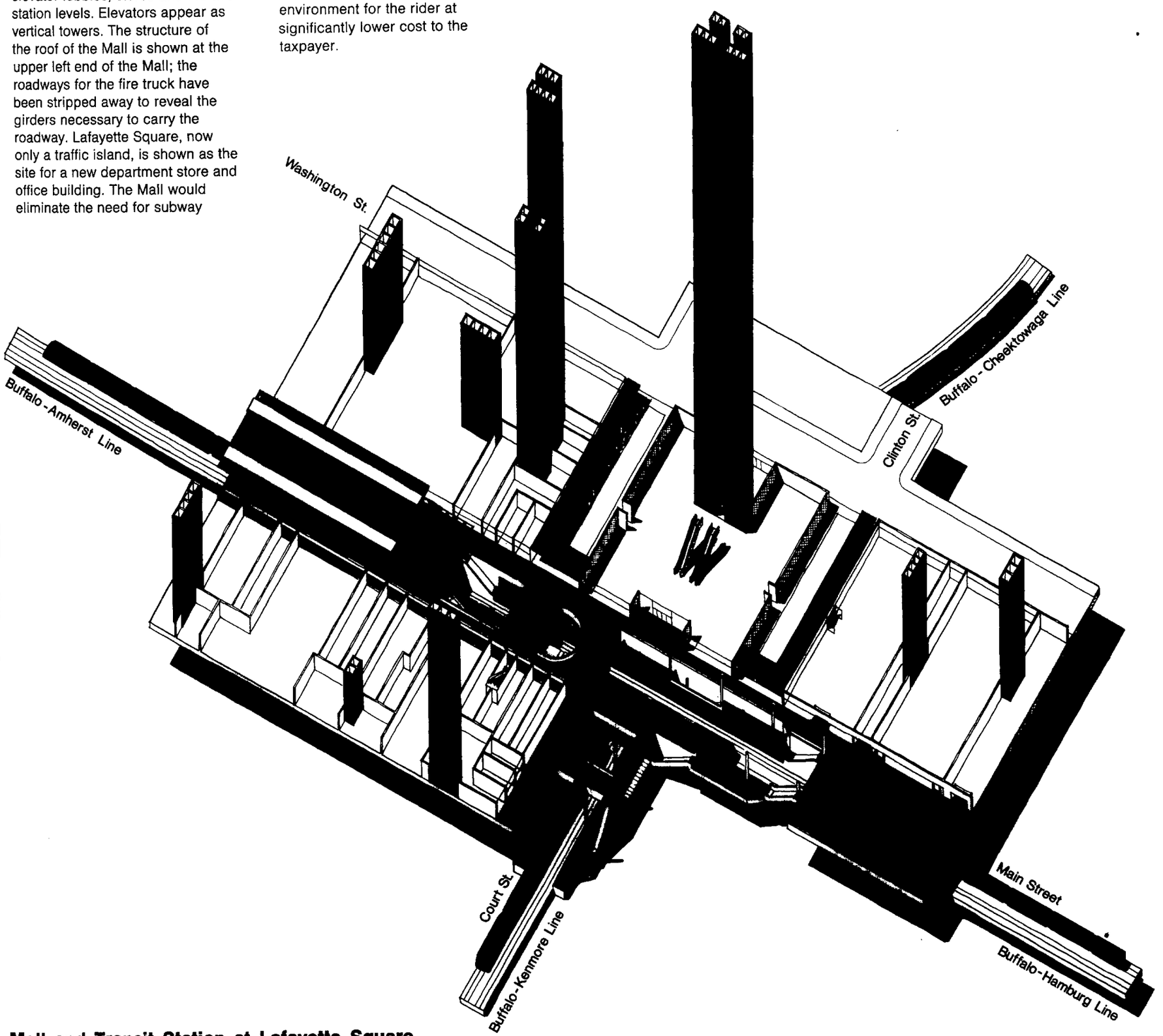
Working with Commissioner Howard, a concept was developed using two concrete roadways over each line of columns on either side of the street at the roof level. These roadways support a fire fighting apparatus permanently housed on the roof of the Mall. The purpose of the permanent apparatus is to be available to fight any fires which would normally be fought by hook and ladder apparatus from the street. Fires occurring in buildings below the roof line of the Mall would be fought by regular street equipment which would come directly into the Mall at street level.

The roof plan also shows the roof of the extensions of the Mall continuing across Pearl Street at Court Street and across Washington at Eagle Street, Lafayette Square and Mohawk Street.

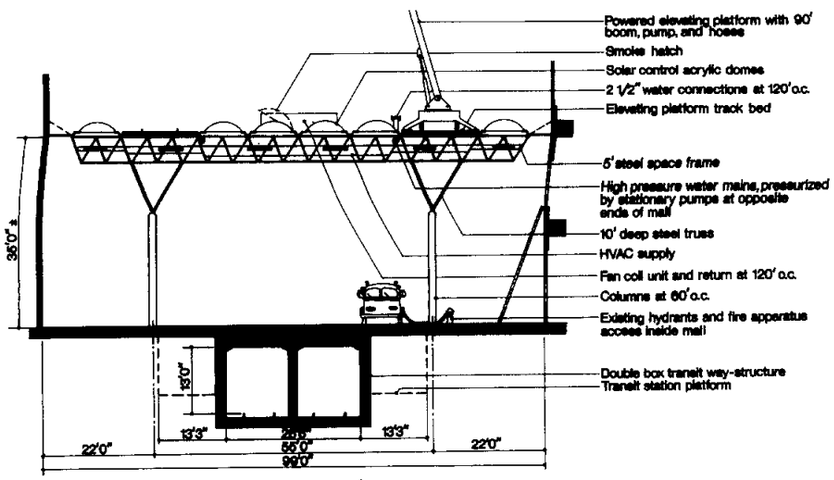


 Sectional Perspective Looking South on the Main Street Mall at Lafayette Square

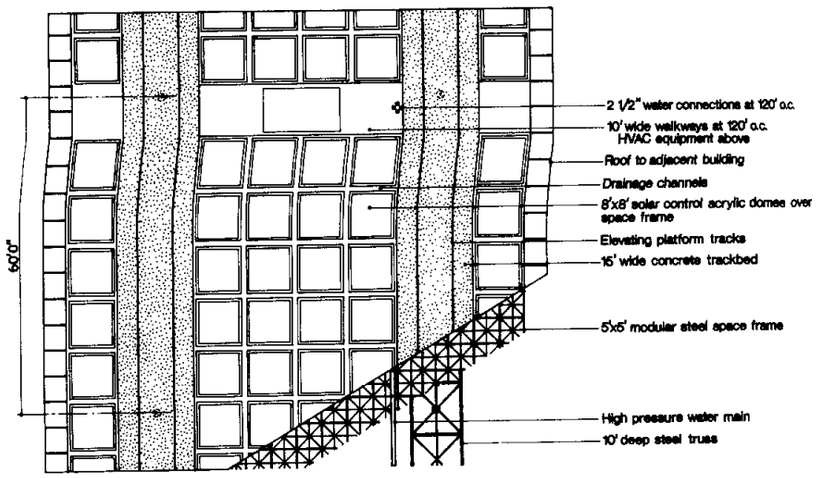
This "anatomical" sketch shows the station levels at Lafayette Square. The buildings and ground have been cut away to reveal the relationship between the Mall, elevator lobbies, stores and the two station levels. Elevators appear as vertical towers. The structure of the roof of the Mall is shown at the upper left end of the Mall; the roadways for the fire truck have been stripped away to reveal the girders necessary to carry the roadway. Lafayette Square, now only a traffic island, is shown as the site for a new department store and office building. The Mall would eliminate the need for subway mezzanines and permit the station platforms to be at minimum depth below the ground. This will reduce the length of stairs and allow a closer, more open relationship to the Mall. It also provides a safer environment for the rider at significantly lower cost to the taxpayer.



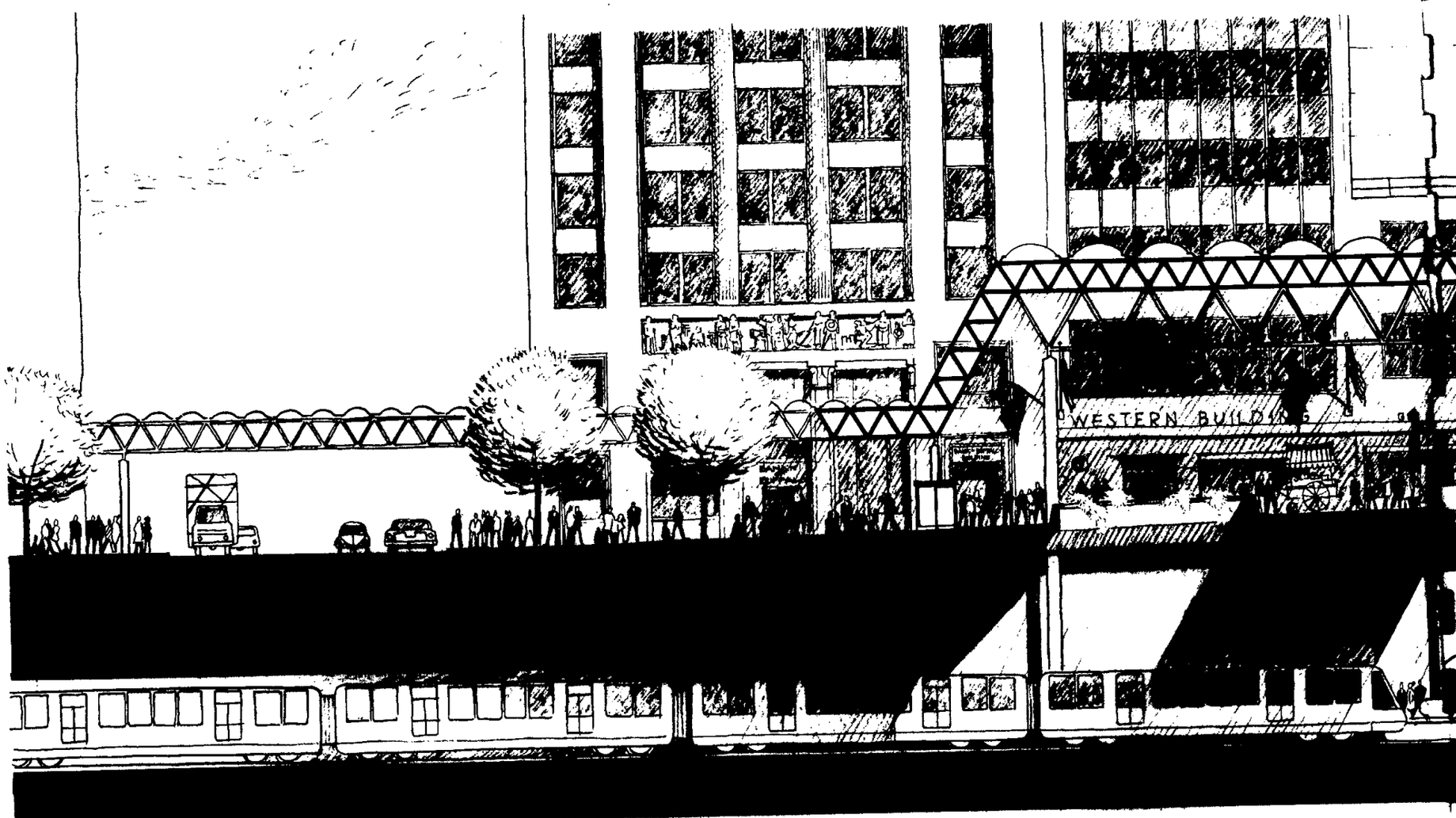
Mall and Transit Station at Lafayette Square



Typical Mall Section

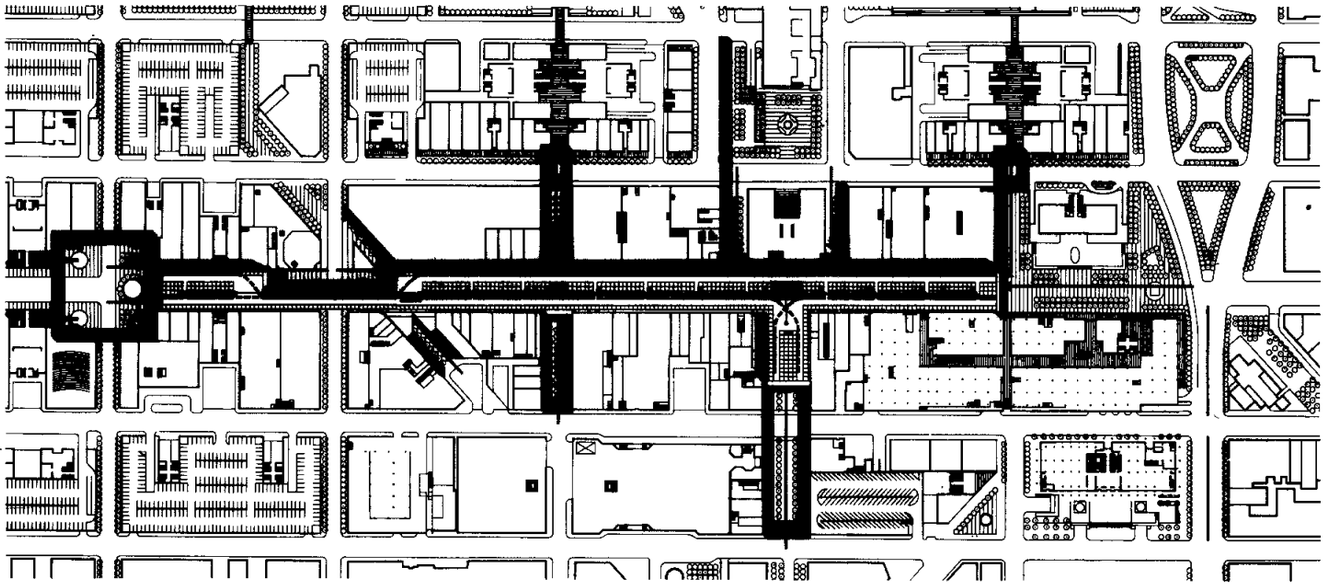


Roof Plan of Typical Mall Section



Section through Lafayette Square Showing Both Subway Lines and the Mall Structure

The open, skylit quality of the Mall is shown below. The light, airy "space frame" structure is shown covered with double domes of acrylic plastic. The outer dome is reflective to cut down on summer glare and heat. The inner dome supplies an insulating air space to reduce heat loss in winter. Snow and rainwater will be carried away in two foot wide scuppers between the skylights and drained down the supporting columns. Snow on the roadway and ice in the scuppers will be melted by radiant heating elements used only as needed. The joint between the faces of buildings and the structure will be made by a special structural element which can be varied to meet the special condition at each building.



Fire Access

--- Fire Apparatus Access Way on Mall Roof

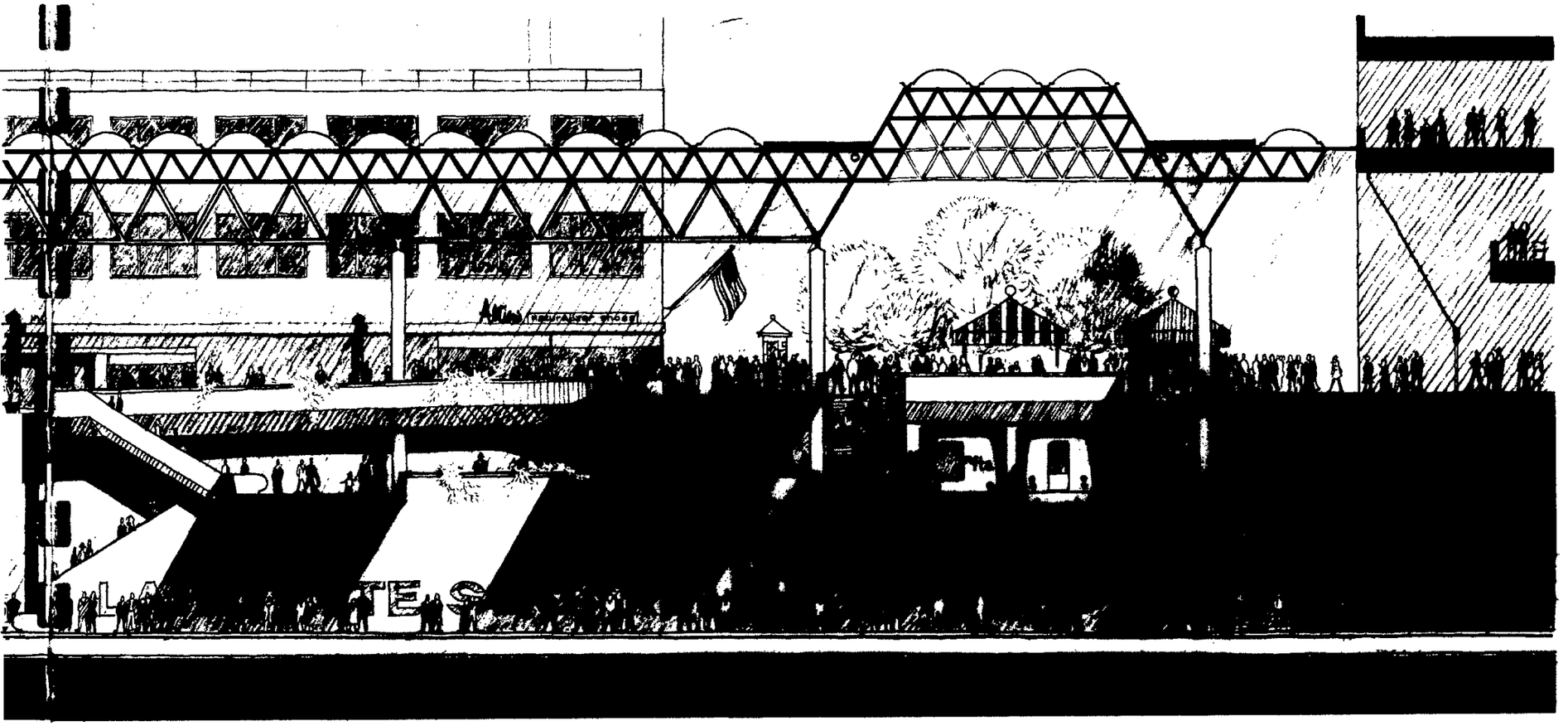
Fire Apparatus Station and High Pressure Water Pump

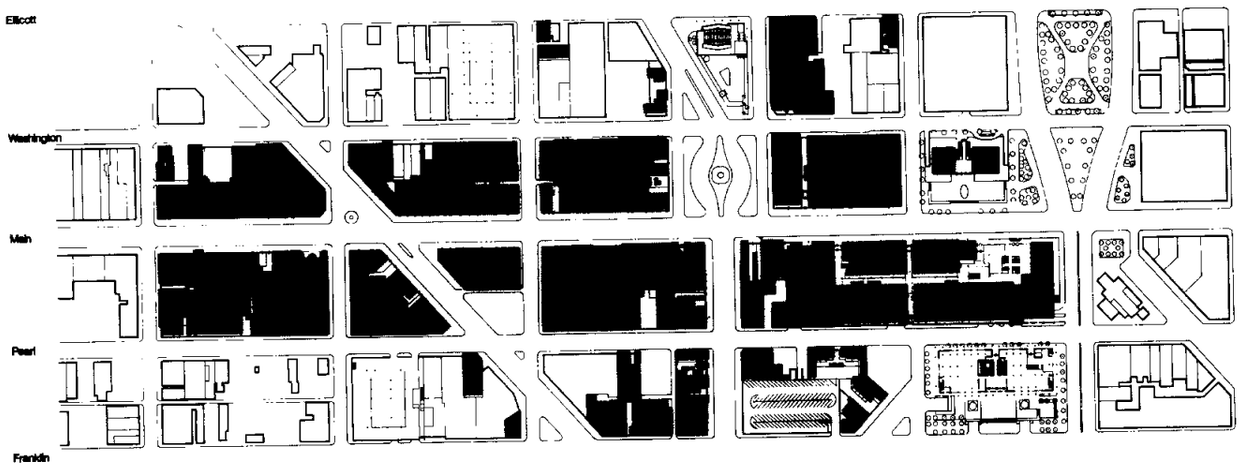
-·- High Pressure Water Main and Connections

← Ground Level Fire Apparatus Access Way and Entry to Mall Interior

Central Mechanical Plant Location

Individual HVAC Units

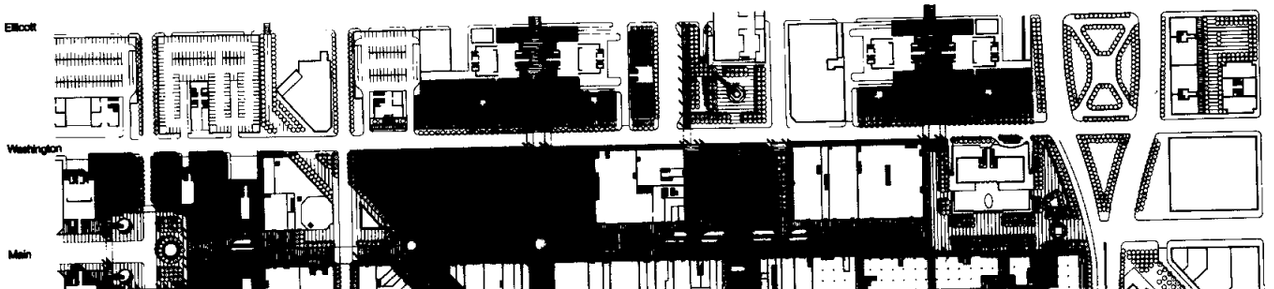




Department & Variety Stores
Other Retail Stores
Banking & Business Service
Eating, Drinking, Hotel & Personal Services

Existing Ground Floor Activities

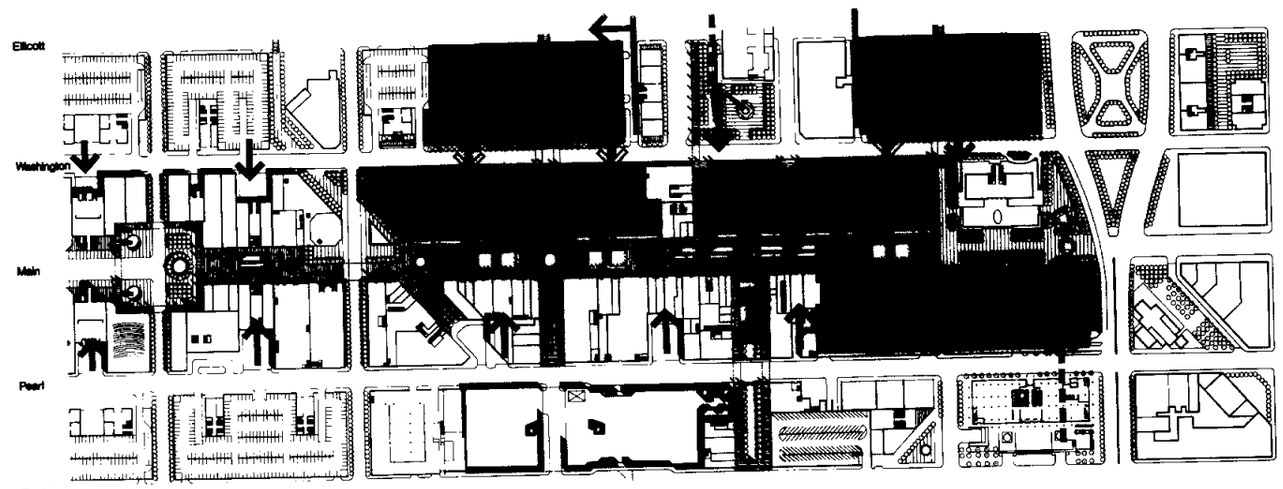
The plan at the left shows the uses which exist now along Main Street in the area of the proposed Mall. These have been evaluated to determine where the most likely opportunties exist for future investment in retail activities in the Mall. In no sense does the plan indicate that those areas shown as opportunities are necessarily to be changed by public action. Rather, they indicate where private action is most likely to occur as the effect of the Mall begins to be felt on the pattern of retail sales in Downtown. Minimum use of public powers is expected to be used in the assembly of sites.



Retail Opportunities on Main Street
Retail Opportunities off Main Street

Retail Space Opportunities in the Mall

The diagram at the left shows areas in and adjacent to the Mall where, in the consultants judgment new or improved retail space could occur. These locations were selected on the basis of the results of an analysis of existing structures and retail activities in Downtown. Those areas where structures had a number of characteristics indicating easy replaceability (i.e. non-fireproof, single story, poor conditions, etc.) or were low taxpayers were those designated as areas which would be ripe for replacement or radical improvement if the Mall were constructed.



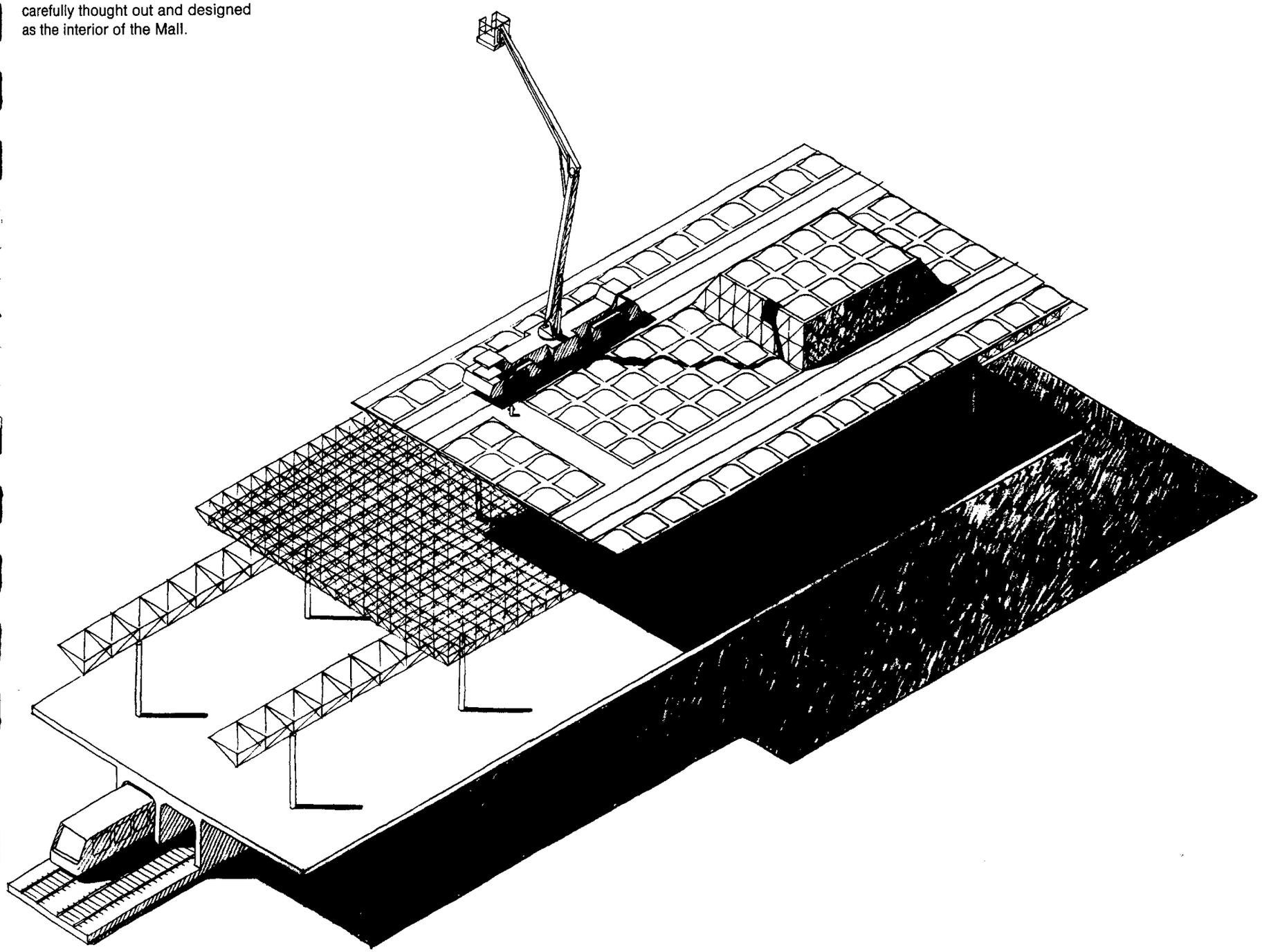
Basement Service Level
Underground Service Tunnel
Truck Access

Servicing the Mall

Relatively few stores on Main Street are served directly from Main Street. When Main Street is closed to vehicular traffic, trucks will be prohibited from the Mall. In order to continue to serve the few stores requiring service from the Mall, truck loading areas are proposed in each block where materials can be transferred to special carts for delivery of goods and removal of wastes. The service areas proposed will be designed to handle most of the service needs of the Mall area.

The view of the roof of the Mall from the surrounding buildings is as important as the view the pedestrian has when in the Mall. The Mall structure is shown with various pieces of the structure "peeled" away to show how various elements relate to each other. The fire fighting equipment is shown on the roadway on the roof of the Mall.

Air-conditioning equipment will be housed in penthouses on every other bay. The roofscape will be as carefully thought out and designed as the interior of the Mall.



3 Transportation and Transit

Statement of the Committee

The importance of the proposed mass transit system to the success of the Plan for Downtown cannot be underestimated. To establish the economic context for mass transit proposals the following facts should be borne in mind.

Downtown accounts for approximately 24.5% of the total revenues to the City from property and retail sales taxes. In other terms, Downtown is roughly one square mile or about 2.5% of the total area of Buffalo City but returns one quarter of the total tax revenues. As an employment center, Downtown supplies jobs for 61,000 people or about 15% of the total jobs in the Region. The Region (SMSA) is about 1,600 square miles. Thus 1/1,600 of the area supplies 15% of the jobs. These two points illustrate about as forcefully as is possible the importance of Downtown to the City in terms of taxes and to the Region as an employment center.

This importance to the City and Region is reinforced when it is considered that the City's tax base in areas other than Downtown has been steadily declining and its costs steadily rising.

Consequently the aim of the Plan for Downtown has been to propose that the City do everything humanly possible (and within its ability to finance) to maintain the concentration of Downtown and to provide an environment which will attract new development and new businesses Downtown. The ultimate object is, of course, to maintain Downtown as the core of the Region and the major tax resource in maintaining the fiscal solvency of the City.

The central feature of the Plan for Downtown which provides this environment is the Main Street Mall, its branches and its integrated arrangement with rapid transit, parking, and highways. The key word is "integrated".

Each of these elements *except rapid transit* exists today in some unintegrated and insufficient form. For instance, there are successful parking ramps but they are related only to the street system. There is the successful mall in Main Place but it is internalized and does not relate to anything else. The object, therefore, is to create a "critical mass" of elements which work together in such a way as to create an entirely new environment Downtown. In a sense, this really does not mean doing anything much other than what is already being done, except *coordinating* the existing and new public elements of Downtown.

As a major coordinating element the rapid transit system should accomplish the following:

1. It ought to be pleasant, fast and convenient.

2. In the downtown area it ought to relate directly in a highly visible and well designed way to the pedestrian mall system.

3. A passenger should be aware, visually, that he has arrived Downtown, at the "hub" of the Region.

4. The alignment, both vertical and horizontal, ought to be arranged to promote the development of new tax ratables for the City.

5. The transit way should traverse the Downtown so as not to produce a blighting influence on the surrounding areas.

6. It should not preempt any more valuable Downtown real estate than is absolutely necessary.

7. It should promote the design and environment quality of Downtown.

8. It should be capable of being expanded and extended in the future.

It should be clear from the above statements that the Committee endorses the view that one of the major purposes, if not the major purpose, of rapid transit is to preserve Downtown. In view of this, the Committee endorses the view that the character of the rapid transit lines should feature a mode that would provide fast, safe, reliable and efficient service as well as an alignment that is not only compatible with downtown development, but one which will enhance the visual and aesthetic characteristics of these projects.

There are a number of reasons for these views. The major one is that they will best promote the potential for an integrated, pleasant, people-oriented design for the Mall and its extensions.

An integrated alignment with the Main Street Mall would permit interactions with that project. The station design can become part of the Mall. This will greatly reinforce the sense of arrival at a major, important and pleasant place. The possibility of producing this quality would be virtually non-existent on any of the other locations Downtown. A non-integrated alignment would be incompatible with the proposed Mall project and would lessen the aesthetic qualities of the downtown area.

Rapid transit service will be provided first north-eastward from Downtown in the Buffalo/Amherst Corridor and subsequently in other directions: due north, east, and south. In the interim until this fast service is available in these directions, and long range in those directions that will not enjoy rapid transit service, the motor bus will continue to play an important role. The Downtown Plan and its phased development must accommodate bus routes in such a way as to make the service attractive for commuters, shoppers, and recreation seekers, while still being as economical and efficient as possible to operate. To achieve this, it may be necessary to give preferential attention to the expeditious movement of buses in traffic, and to have bus-only lanes in the opposing direction on certain one-way streets.

The highway plan is also extremely important to the success of the Plan. The Committee endorses the proposed surface street plan but withholds judgement on the Elm/Oak arterial until the technical issues are resolved. In principle, the purpose of the expressway system is to supply maximum access to Downtown at an adequate level of service as well is providing a facility for through traffic.

Claude F. Shuchter, Chairman
Edward W. Umiker
Donald H. Ketchum
Ralph M. Barnes
John J. Nasca
Paul G. Rohrdanz
Alex D. Trumble
Gordon J. Thompson

Transportation Goals

1. Promote a better urban environment.

2. Make pedestrian movements throughout the Downtown as comfortable as possible, providing all-weather passages wherever possible.

3. Minimize disruption of existing and planned development.

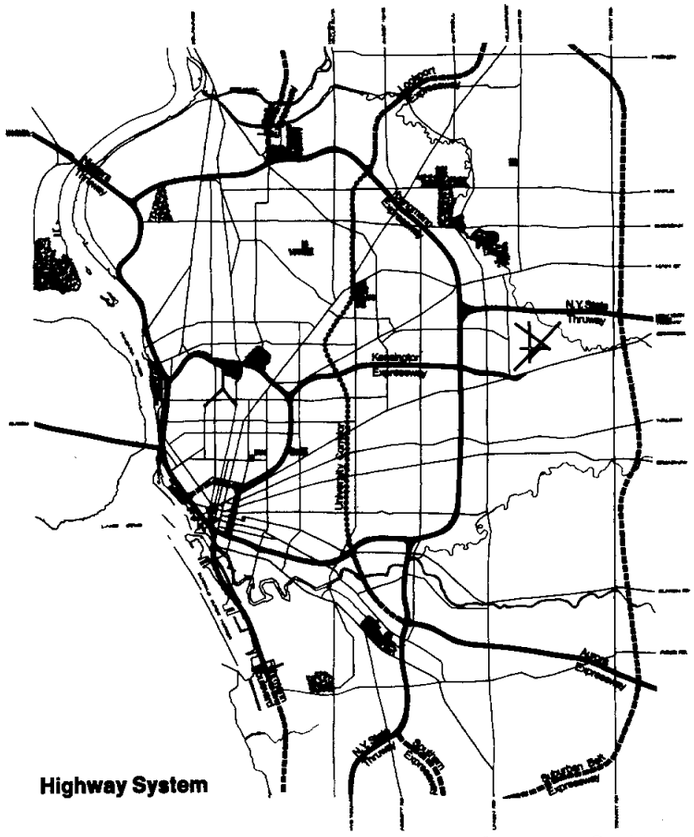
4. Increase public transportation service and ridership to Downtown.

5. Provide reduced pollution levels.

6. Reduce street and parking congestion by increasing transit ridership.

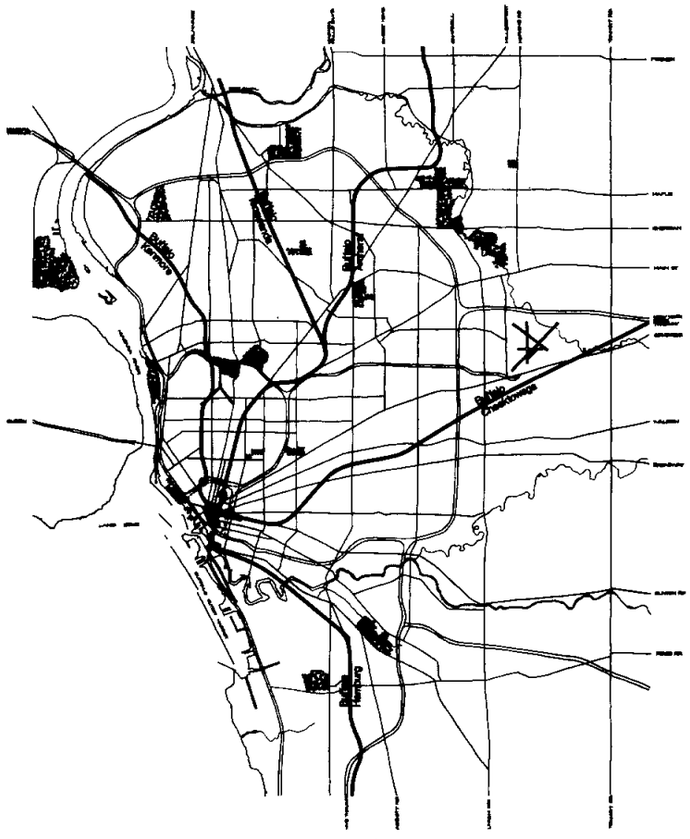
7. Accommodate required transportation facilities, both public transportation and highways, within a minimum right-of-way.

8. Minimize disruption during construction.



Highway System

- Existing Expressway
- Designated Expressway
- Expressway Corridor
- Highways and Arterials



Proposed Public Transportation System

The Transportation System in Regional Context

Public Transportation

Buffalo's urban area population density of 6,600 persons per square mile is the second highest in the United States. Despite this high population density, transit ridership in Buffalo Metropolitan Area is relatively low among large cities, although it is high among those dependent upon buses alone. There is potential for a comprehensive public transportation system involving several rapid transit corridors complemented by an extensive feeder bus system.

Early in 1970, the Niagara Frontier Transportation Authority initiated a feasibility study for an exclusive right-of-way transit line in the Buffalo/Amherst Corridor as part of its Mass Transit Study. The Study has resulted in a firm recommendation for a rail rapid transit line from Downtown to Amherst. In considering possible later expansion of the Buffalo/Amherst Rapid Transit Line to other high potential corridors designated by the Niagara Frontier Transportation Study, the Mass Transit Study has delineated alignments for five corridors having potential for exclusive right-of-way transit facilities. These include, in addition to the Buffalo/Amherst Corridor line, rapid transit corridors connecting the Buffalo Central Business District with Hamburg, Cheektowaga, the Tonawandas and Village of Kenmore/Grand Island (Kenmore/Airport line). The regional rapid transit network will increase mobility in the Region and provide an attractive alternative mode of transportation for those who do not own a car or those who find the use of cars inconvenient. An efficient and reliable public transportation system will reduce the magnitude of street and highway improvements that would otherwise be needed to meet the growing traffic demands of commuter work trips.

Implementation of a rapid transit system in the Buffalo Metropolitan Area will result in increased densities and a more structured regional growth pattern. Existing plans call for construction of the Buffalo/Amherst Corridor line, connecting the CBD and the new campus of the State University at Buffalo (SUNYAB), between 1973 and 1977. Preliminary estimates by the Niagara Frontier Transportation Authority's consultants call for the subway through the Central Business District to be under construction throughout 1973 and 1974.

Highways

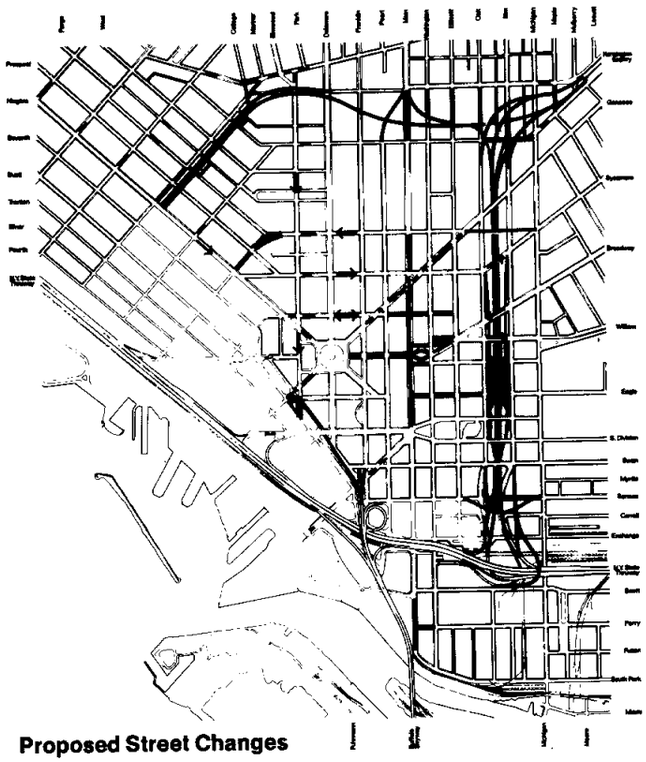
An extensive network of freeways connects major employment and retail locations with residential developments in the Region. Latest additions to the regional network include the Youngmann Expressway, the Kensington Expressway, the Aurora Expressway and a part of the LaSalle Expressway. Proposed future extensions of this network designated as "expressways" include the University Expressway, the Southern Expressway and the Belt Expressway.

Existing Street System

— Expressway

▬ Arterial, Collector or Distributor

— Local, Street



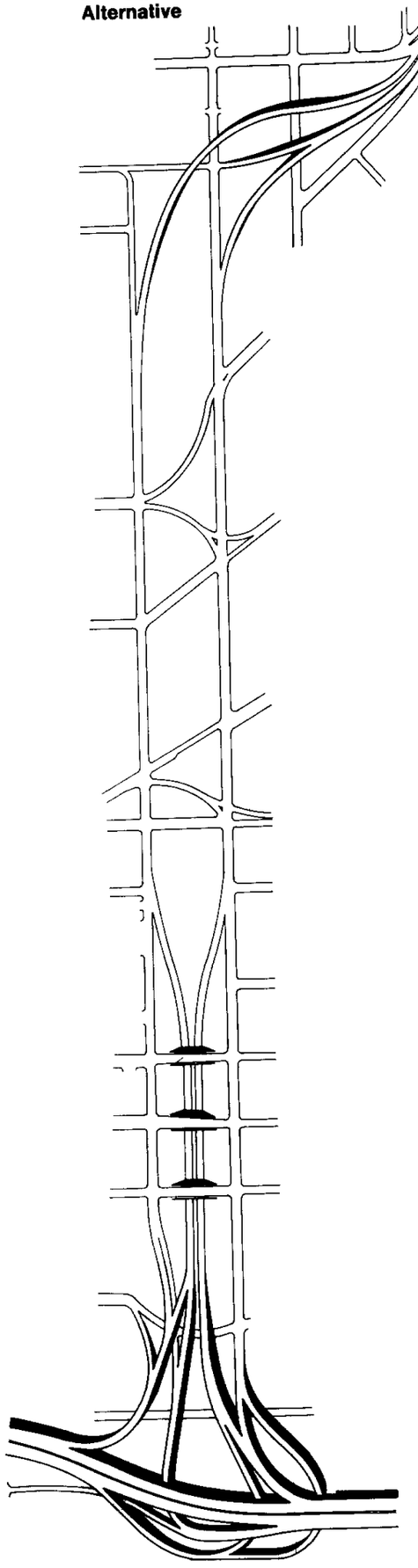
Proposed Street Changes

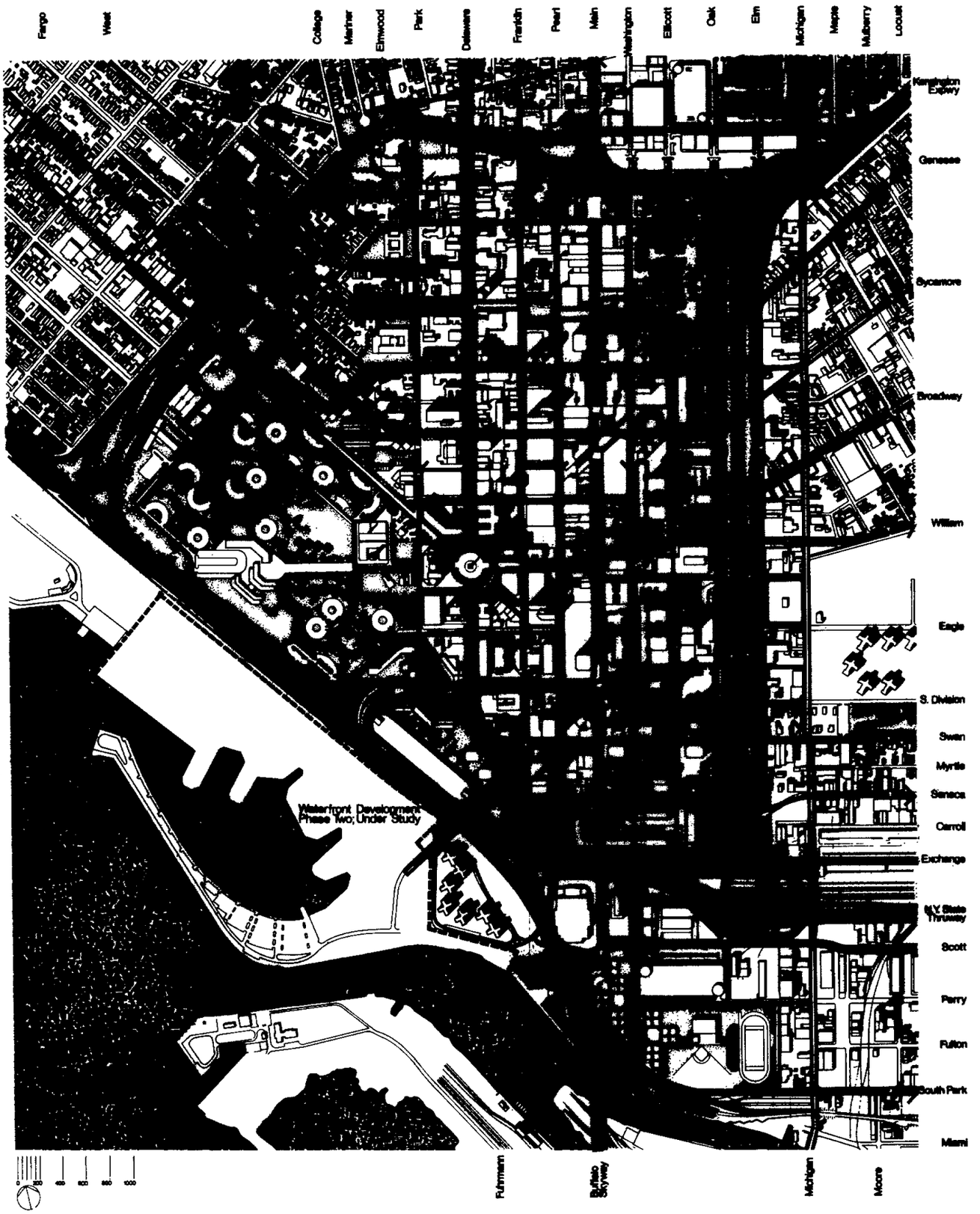
— Closed Street

— New Street

← Change in Traffic Direction

Elm Oak Arterial Alternative





Traffic Plan

- Limited Access Expressways
- Major Arterials
- Collector/Distributor Streets
- Local Streets

The Street System

Existing Streets

Ellicott's layout of Downtown Buffalo creates a great number of problems for today's vehicular and pedestrian movements. Five and six legged intersections along Genesee and Niagara Streets are difficult to operate and in some cases, confusing to drivers and hazardous for pedestrians. The combination of the grid and radial street pattern coupled with the combined use of one and two-way streets is difficult to understand for people not completely familiar with the area.

To make efficient use of the available street capacity, modern traffic signal equipment, new pavement marketings, new signing and elimination of on-street parking and loading wherever possible, will be required.

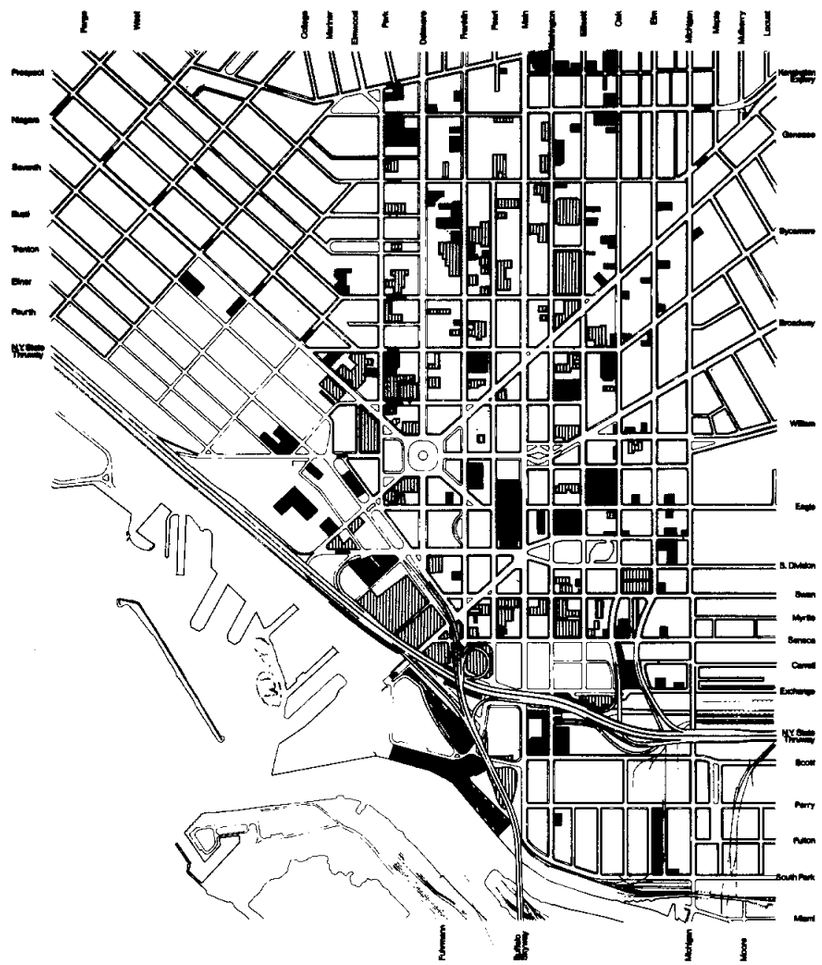
The proposed downtown street plan seeks to overcome many of today's traffic problems.

The Traffic Plan

Vehicular access to Downtown will be provided by a combination of freeways and arterial streets. Four radial freeways will serve to accommodate almost 70 percent of the total vehicular travel to and from the CBD. These are:

- the Niagara Section of the New York State Thruway from the northwest,
- the Niagara Section of the New York State Thruway from the southeast,
- the Kensington Expressway from the northeast, and
- the Buffalo Skyway from the south.

The existing radial freeways can continue to provide excellent freeway access to the downtown area throughout the 20 year planning period if improvements are made at other points along these freeways. Spot improvements, reconstruction, ramp metering and some ramp closures should be examined and are among the possibilities of optimizing the existing freeway corridors providing access to Downtown.



Existing Off-Street Parking Facilities

Civic
Commercial
Private

Major arterial streets that will continue to play an important role in providing ingress and egress to Downtown include Niagara Street, Elmwood Avenue, Delaware Avenue, Franklin Street, Linwood Avenue, Main Street, Genesee Street, Sycamore Street, Broadway, William Street, Swan Street, Seneca Street and South Park Avenue.

The Main Street Mall

The Plan shows the creation of a total pedestrian environment in a ten Block area bounded by Chippewa, Pearl, Washington and Church Streets which will significantly change the Downtown street pattern. Closing Court and Mohawk Streets across Main Street will directly affect the traffic volumes on the streets immediately north and south of the closures. South of the Main Street Mall, the new six-lane divided Church Street Arterial as well as a pair of one-way streets composed of Seneca and Swan Streets, will provide ample capacity to serve the projected east-west movements across Main Street. North of the closures at Main Street, a new one-way pair utilizing Huron and Chippewa Streets is proposed to accommodate the projected east-west traffic volumes. Huron Street will be reversed from its present westbound direction and Chippewa Street will be made one-way westbound. On the west side of Downtown, this one-way pair will connect into another one-way pair consisting of Niagara Street and Prospect Street. Niagara Street will operate as one-way inbound for all vehicles with the provision for an exclusive bus lane outbound. Prospect Street will continue to operate one-way outbound.

The closure of Main Street between Chippewa and Church Streets necessitates the construction of a one-way couple to connect Main Street with Pearl and Ellicott Streets between Goodell and Tupper Streets. These new connections are shown on the Illustrative Site Plan.

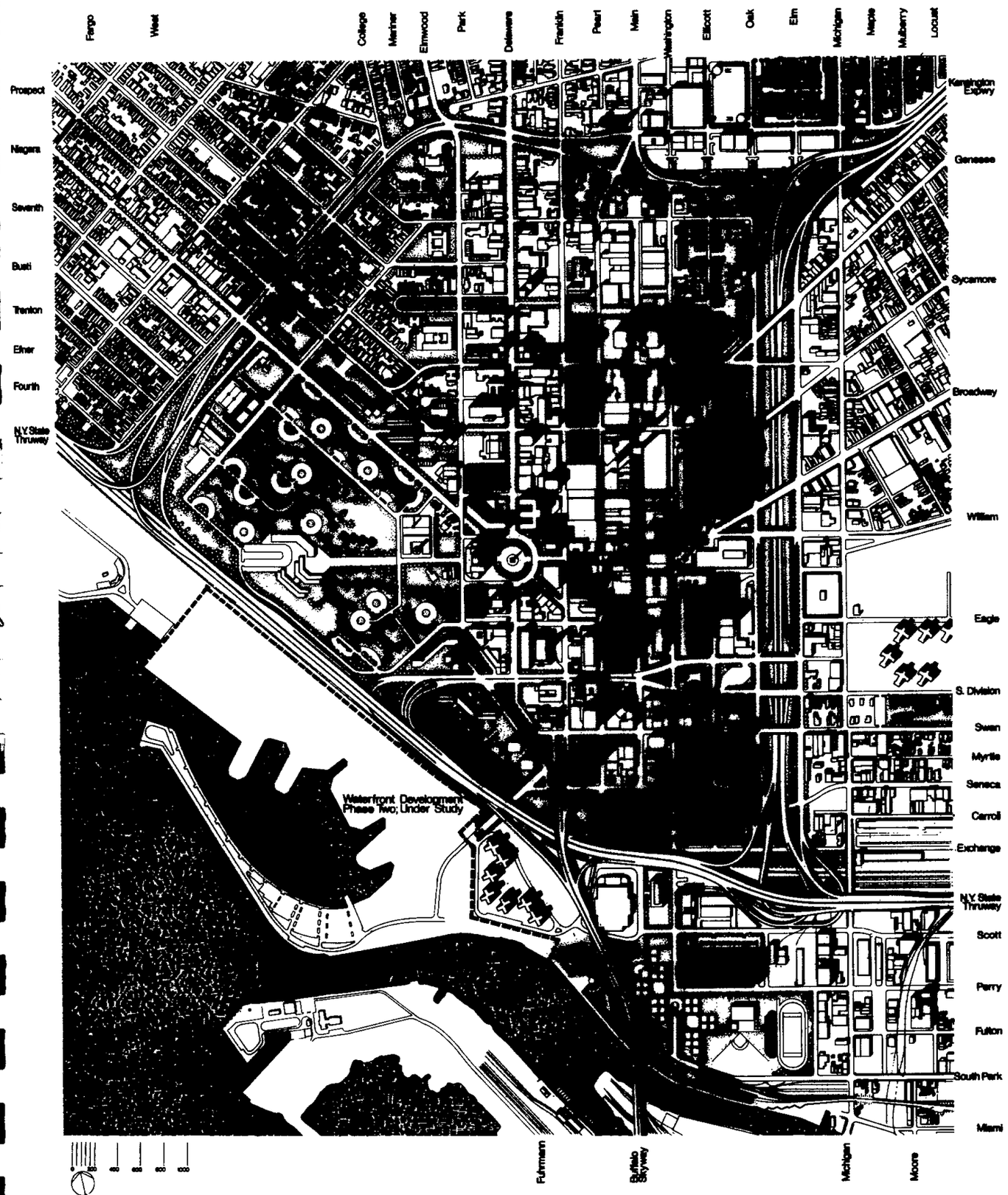
New Highway Facilities

The West Side Arterial connecting the Kensington Expressway and the Virginia-Carolina Interchange of the Niagara Section of the New York State Thruway will function as a distributor of traffic to the downtown area and also accommodate east-west through movements between the two expressways. The location of this at grade facility as recommended by the Consultants is shown of the Illustrative Site Plan.
The Elm/Oak Arterial is currently being examined as both a limited access depressed freeway and as an at-grade junior expressway. The depressed freeway scheme is shown on the illustrative site plan. The at-grade scheme favored by the Consultants is shown in the inset plan.

The primary function of the facility under either alternative will be the distribution and collection of traffic to and from Downtown. Each alternative exhibits certain advantages over the other. A final determination will result from the evaluation presently being carried out by City and State agencies. This evaluation will consider the above points as well as others such as benefits to the public related to costs.

To improve the access function of the Skyway to Downtown, it is proposed to make Elmwood Avenue one-way southbound and to improve its connection with Lower Terrace and the Skyway on-ramp. It is also proposed that the Skyway off-ramp be connected into Franklin Street at Swan Street to decrease the traffic volumes in Niagara Square. Delaware Avenue below Niagara Square would be reduced in importance. Upper Terrace would remain open only to serve abutting properties. The modification of the Skyway off-ramp together with the closure of the radial streets in Downtown, will result in a considerable reduction of traffic in Niagara Square.

The creation of a grid pattern in combination with a system of one-way streets will greatly improve the ease of traffic and pedestrian movement in the Central Business District.



Parking Plan

- Proposed Parking Facility
- Current Parking Facility Project
- Existing Parking Facility

Parking

Present Parking

The 1969 parking supply of 28,000 parking spaces in downtown consists of about 4,000 spaces in permanent structures, 14,270 spaces in off-street parking and almost 9,000 legal and illegal on-street parking spaces. Construction of new housing, offices, buildings and parking structures will remove about one-fourth of the total supply within the next few years. Many on-street parking spaces will be removed to increase the capacity of the existing and proposed street system. To replace parking spaces that will be removed, new parking facilities will be required.

The Parking Plan

Major off-street parking facilities will be located near the main points of entry to downtown. This will minimize the demand for east-west movements in downtown. At the same time, the parking facilities are located in close proximity to retail shops and projected concentrations of employment. The parking facilities are directly connected into the pedestrian system.

A total of 20,200 new parking spaces will be needed over the next 20 years if the plan is fully developed. Of the 1,000 new parking spaces per year, almost 750 spaces will account for replacement of existing on-and off-street parking while 250 additional spaces will be required to meet the additional 20 year demand. Gradual removal of the 6,000 on-street parking spaces that exist today will improve the effectiveness of the present and proposed street system. The City of Buffalo's parking program is well ahead of the necessary pace of 1,000 new spaces per year.

The Marine Midland Center, the County Office Building and the Federal Office Building will add about 1,700 new parking spaces to the existing off-street supply. The City Court Ramp and a proposed new parking facility in the block bounded by Elmwood, Huron, Delaware and Mohawk will add another 2,000 spaces.

Existing Downtown Bus Routes

Public Transportation in Downtown

Present Transit

The 24 basic bus routes providing local transit service to Downtown are of major importance to all residents seeking access to this vital area of the Region, Today, about one-third of all trips and half of all shopping trips to downtown Buffalo are made by bus. Main Street, carrying about 60 buses in the peak direction in the peak hour, is by far the heaviest travelled transit artery to Downtown.

The Transit Plan

The rapid transit network in Downtown as shown in the Plan consists of two lines intersecting at Court and Main Streets. The Buffalo/Amherst line now under study by the Niagara Frontier Transportation Authority will come down Main Street to Church Street in a shallow subway. At that point, it will go to Erie Street, over to Swan Street and continue south along an alignment just west of Pearl Street. At Seneca Street, the line will start to come out of the ground, go under the Seneca off-ramp from the Skyway and be approximately at-grade at Exchange Street. It will then continue south, past Memorial Auditorium on the west side and curve west of the Skyway, then to the east where it will connect with the old tracks of the Erie-Lackawana Railroad at the foot of Main Street.

Stations along this line are planned at Chippewa Street ("Theater"), Court Street ("Lafayette Square"), between Swan and Seneca Streets ("Cathedral Park"), and at the foot of Main Street ("Community College"). The "Theater" and "Lafayette Square" stations are planned as integral parts of the Main Street Mall. Direct connections, from the underground platform level to the Mall level, will minimize the station construction cost and maximize the inter-relationship between public transportation on one hand and the commercial retail and other land uses to be served on the other hand.

The consultants to the Niagara Frontier Transportation Authority have recommended that the Buffalo/Amherst line be a steel wheel on steel rail system. This type of system would be compatible with the Main Street Mall, and is endorsed by the Consultants.

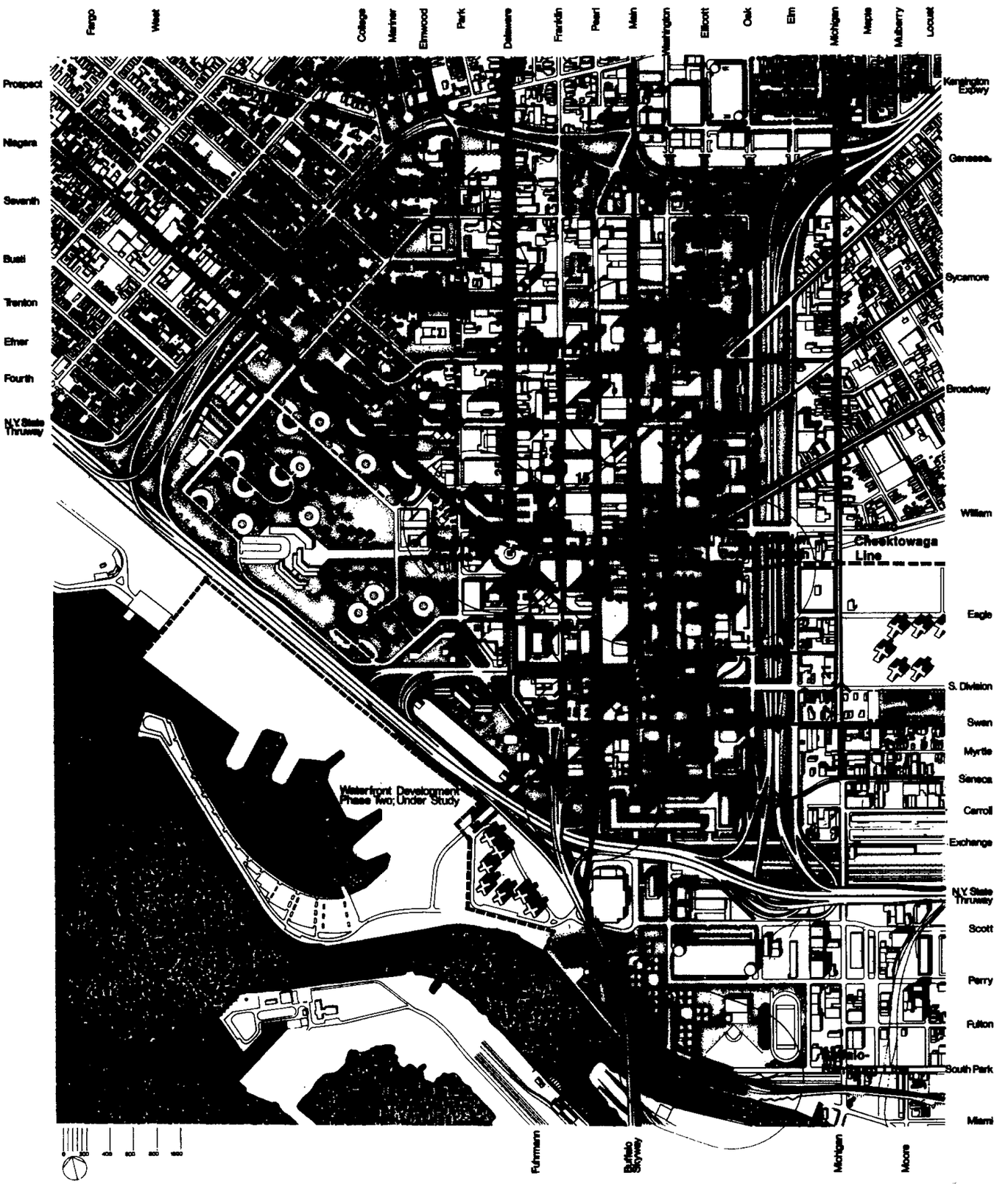
The Plan envisions that the east-west line (Kenmore/Airport) will complement the Buffalo/Amherst line at a later date. Although no detailed feasibility study has been made, the following possible alignment within the CBD is suggested. The east-west line coming down Richmond Avenue would follow public right-of-way alongside Wadsworth Street. At Allen Street, it would continue in a south-east direction to Elmwood Avenue. At this point, the line would be in subway and follow Elmwood to Mohawk Street where it would curve to the east following Niagara Street, Niagara Square and Court Street to Lafayette Square. At Lafayette Square, the line would bend slightly to the south to continue down Clinton Street to the east. Proposed station locations in the CBD are along Elmwood Avenue at Johnson Park, at City Hall/Niagara Square and at Court and Main Streets (intersecting with the Buffalo-Amherst Line). It is recommended that this line be in subway between Elmwood Avenue and Trinity Street and Oak and Clinton Streets.

Another alternative alignment which should be investigated as part of a feasibility study for the Kenmore/Airport line would be to curve west from College Street, be briefly on the West Side Arterial, then curve south into Niagara Street to Niagara Square. These two alternatives should be evaluated in terms of patronage, construction cost and impact on the neighborhood.

The rapid transit lines will be supplemented by a number of bus routes serving those areas that do not have easy access to the stations along the rapid transit lines. Implementation of the Buffalo/Amherst rapid transit line will reduce the number of bus routes entering the Downtown via Main Street. It is anticipated that almost all other routes would continue to serve Downtown essentially as they do today.

The problem of disruption of Main Street must be minimized by simultaneous construction of the Mall structure and the subway. Each block must be entirely completed before the next begins. During the actual construction period at least two lanes of traffic must be maintained and pedestrian access must be possible at all times. During peak sales periods, particularly at Christmas time, disruption must be minimized with no major construction during that period.

The design of the Mall and rapid transit systems should allow the future accommodation of a "people-mover" system. The technology of this type of system is nearing the point of becoming economically feasible for use in areas in which there are high concentrations of people. The recent University of West Virginia campus pilot project sponsored by the Federal Government is the prelude to the installation of such systems commonly. Such a system is being seriously considered in Downtown Los Angeles. The detailed design of the Downtown should not preclude the future integration of a people-mover system with other major elements of the transportation system.



Proposed Downtown Transit Systems

— NFTA Proposed Rapid Transit Line

---- Potential Future Rapid Transit Line

— Bus Routes with Full Rapid Transit System

= Transit Station & 600′ Walking Radius

4 Convention Center

Statement of the Committee

Buffalo badly needs a new convention facility. It is suffering from increasing competition from other better equipped cities. The weak competitive position of Buffalo is merely a matter of the lack of proper equipment. This position can be radically altered by a combination of the provision on new facilities and the implementation of other features of the Downtown Plan.

If the City were to provide a new convention facility in its Central Business District (CBD), complemented by new nearby hotels, then Buffalo's present convention trade would be expected to double within five years after opening the new facility and quadruple within 15 years after the facility becomes available.

Present convention delegate expenditures within the City of Buffalo will amount to a little over $6,000,000 in 1970. A new convention facility is expected to increase the flow of outside convention dollars brought into the community to over $12,000,000 by 1980 (assuming a new facility is available by 1975), and over $25,000,000 by 1990 (in 1970 dollars).

Up to 3,000 new hotel rooms can be built in the CBD over the next 20 years, with the new convention facility acting as a catalyst for this development. These new hotels, together with other convention-oriented facilities (restaurants, entertainment, etc.) would amount to $80,000,000 in new construction in Buffalo's CBD by 1990.

The Committee, therefore, recommends strongly that Buffalo build a competitive convention hall in its CBD.

William D. Hassett, Jr., Chairman
Albert L. Cooper
Avery H. Fonda
William F. King
Robert A. Zugger
George L. Burns
Henry H. Harper
Leonard J. Levin

Development Program

A new convention facility in downtown Buffalo should contain between 90,000 and 125,000 square feet of exhibition space, 15 to 25 meeting rooms with a total seating capacity of 5,000 to 6,000, and appropriate lobby, office, storage, and food service space.

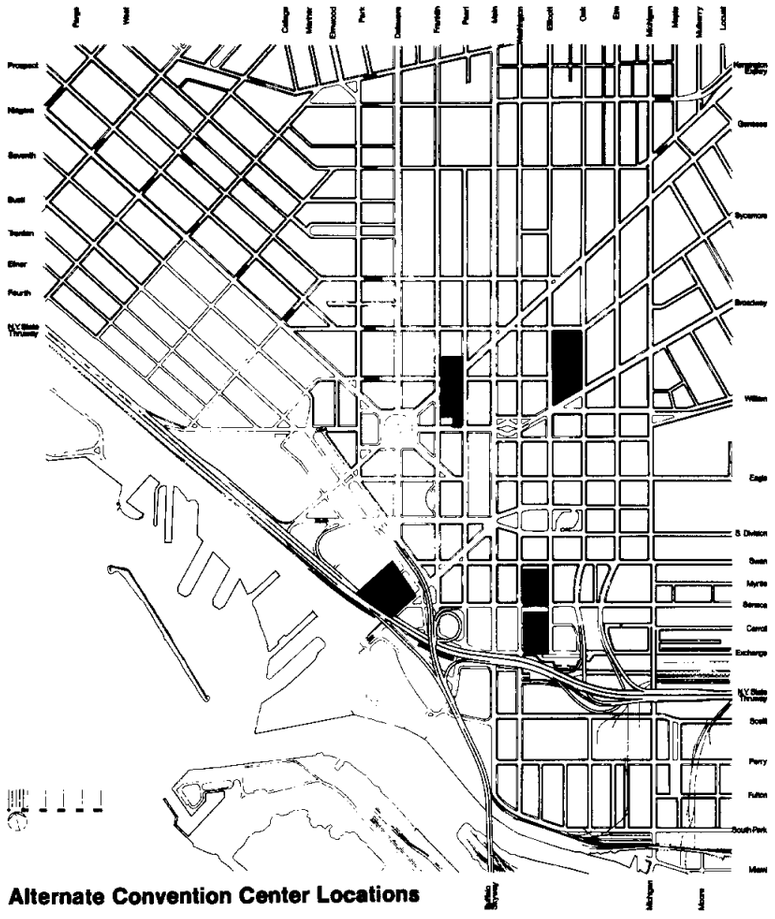
In addition, the new convention facility should be serviced by 1,000 to 1,500 nearby parking spaces and have expansion room available for a possible second-stage addition in future years.

These size specifications have been determined by an analysis of convention facilities recently constructed in cities across the nation which will be competing with Buffalo for large national conventions (which are the primary market potentials for expansion of Buffalo's convention trade in the future). Smaller scale facilities than recommended above would place Buffalo in a less competitive position, while larger scale facilities in an initial construction program would be superfluous due to Buffalo's present lack of hotel space.

A convention hall of the size recommended would require the availability of an additional 1,500 to 2,000 downtown hotel rooms in Buffalo in order to be fully utilized. It is expected that the convention facility itself, together with vigorous efforts on the part of City officials, and the availability of good hotel sites in the CBD, will generate the required hotel facilities within approximately five years after the convention hall becomes available. Forecasts of convention center utilization and associated revenues and benefits to the community have been keyed to this anticipated increase in CBD hotel rooms.

Location in the CBD

Six potential convention hall locations in the CBD were evaluated. Each site was thoroughly examined in terms of both its appropriateness as a convention center location and its overall conformance with the dynamics of CBD development and acceptance within the community as a convention center location.

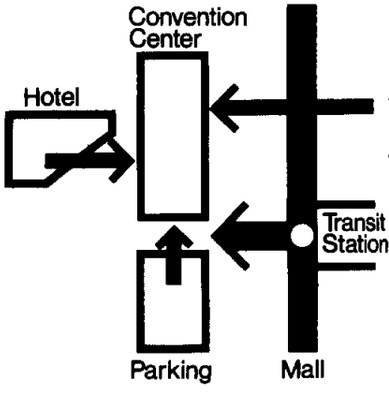


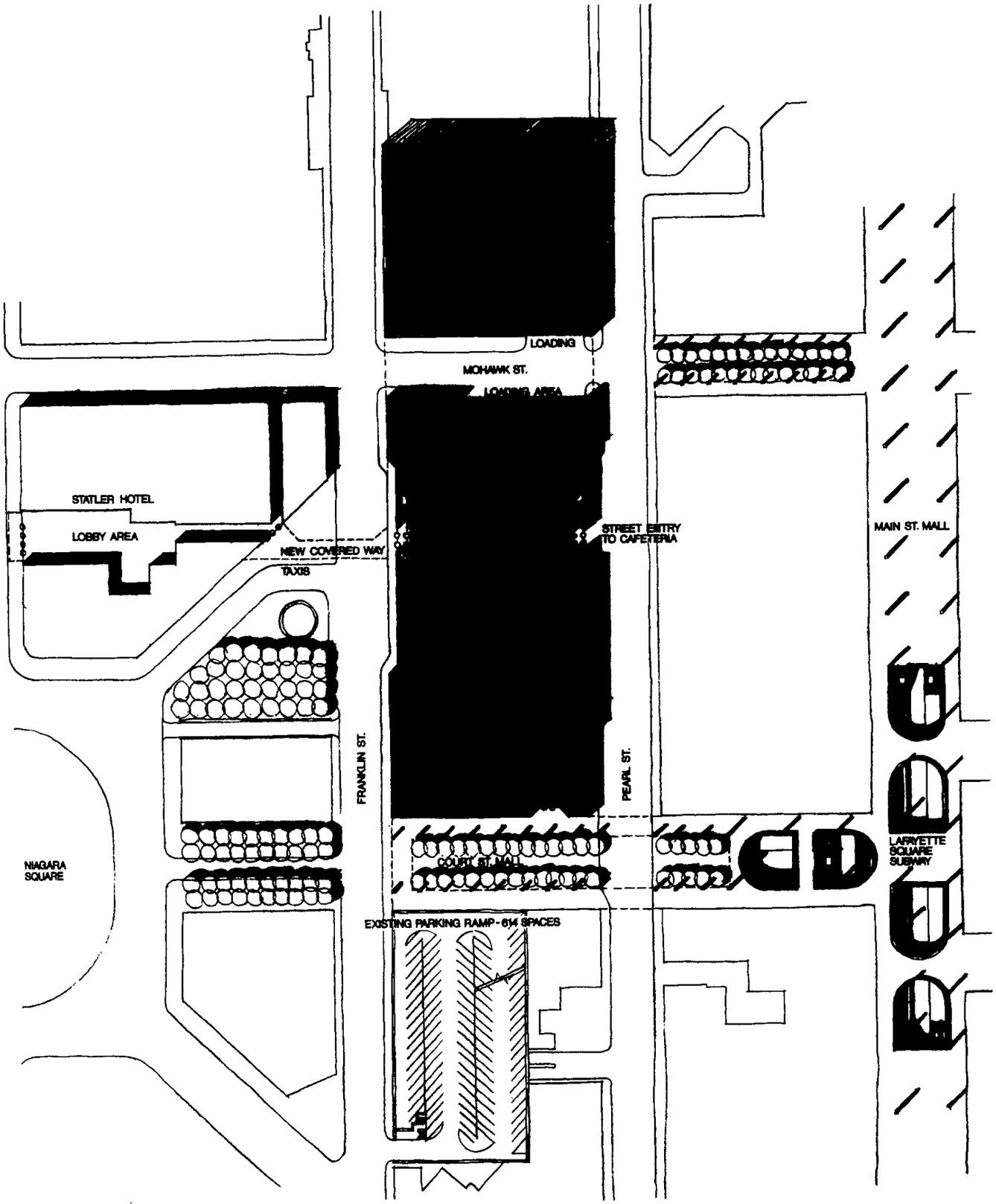
Alternate Convention Center Locations

Proposed Location
Alternate Locations

The site recommended for this facility, on the basis of the above evaluation, is the so called "IRS block" bounded by Pearl, Franklin and Court Streets and spanning Mohawk Street on the north into the adjoining block. This site is the most centrally located of all those examined, a primary consideration for convention facilities, will complement the present renewal of the east side of the CBD, and aid in completion of the Downtown Urban Renewal Phase II Project, as well as the Waterfront Urban Renewal Project.

In order for this site to be fully serviceable as a convention center location, adequate nearby parking for the facility will have to be provided in the Niagara Square area. In addition, ground area for possible future expansion of the convention facilities should be available. City officials have advised that parking and expansion solutions are available at the present time. These are a necessary prerequisite to convention center development at this site.





Illustrative Plan

First Phase
Second Phase

Development Costs and Economic Benefits

Land acquisition and construction costs for the proposed facility are preliminarily estimated at between $9,000,000 and $11,000,000. More detailed site studies and design analysis will have to be conducted before development costs can be more precisely identified.

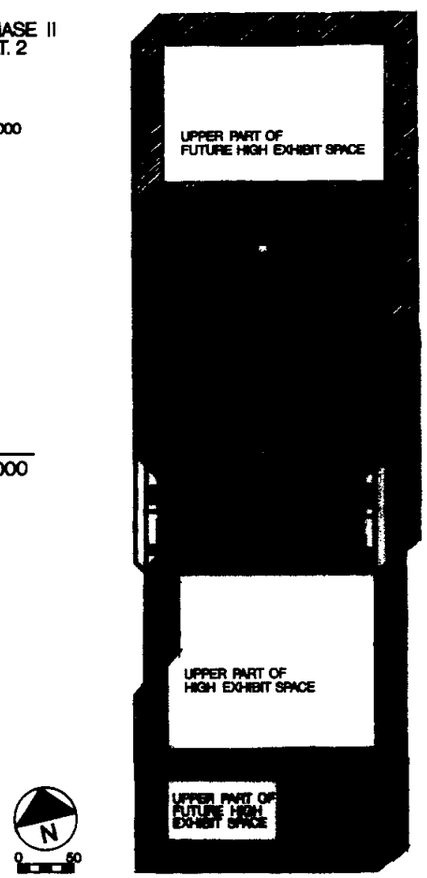
Annual debt service payments for the convention facility, assuming $9,000,000 to $11,000,000 of general obligation bonds are issued by Buffalo to pay for capital costs, will range between $650,000 and $800,000 annually (level repayment on six percent, 30-year bonds).

Operating revenues from the facility are expected to exceed operating costs, except in the earliest years of occupancy. Buffalo's share of State sales tax revenues resulting from convention delegate expenditures in the City is projected to rise over $556,500 within five years after the convention center is opened. These convention delegate-related sales tax revenues are expected to increase to over $1,130,000 annually by 1990.

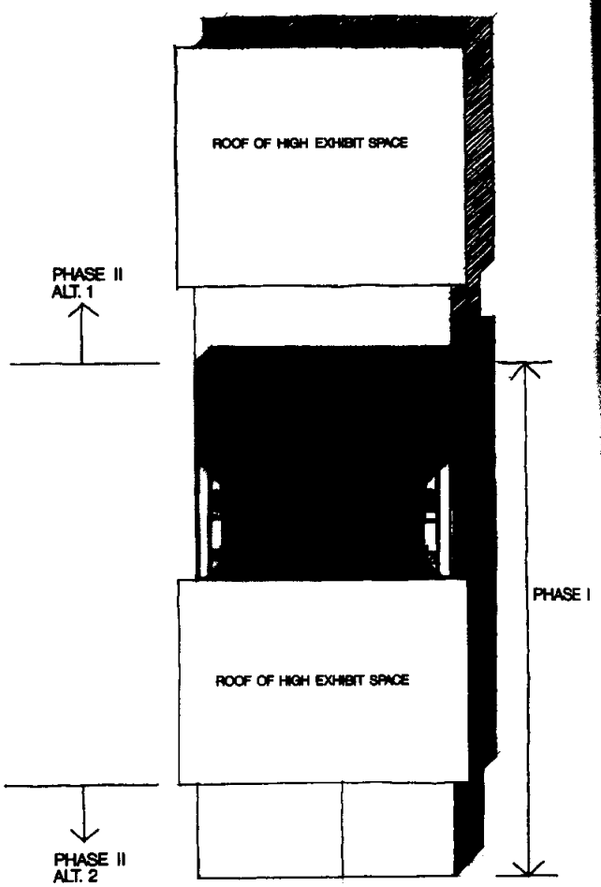
Construction of $80,000,000 worth of new privately sponsored convention-related facilities in Buffalo's CBD over the next 20 years is also anticipated, including approximately 3,000 hotel rooms as well as additional retailing, restaurant, and entertainment facilities. This increase of high value, low services cost property is expected to generate over $3,000,000 of new real estate taxes for the City by 1990 (at 1970's property tax rate).

In overall terms, it is anticipated that the City's investment in a convention hall will result in substantial economic gains for the City by as early as 1980, and have increasing beneficial impact on the economic health of the community in years thereafter. These substantial increases in outside dollars brought into the community, new construction, and associated new jobs and economic vitality in Buffalo's CBD certainly justify a public investment of the scale required to provide the City with a first-class competitive convention facility.

AREA GROSS SQUARE FEET	PHASE I	PHASE II ALT. 1	PHASE II ALT. 2
FIRST FLOOR	87,500		
ENTRY, COATS, CONCESSIONS	7,500		
HIGH EXHIBIT AREA	40,000	47,000	10,000
LOW EXHIBIT AREA (INCLUDING LOADING AREA)	40,000		
SECOND FLOOR	47,500		
BANQUET AREA	18,000		
CAFETERIA	18,000		
CORRIDOR	4,000		
EXHIBIT AREA		30,000	
OFFICES	7,500		
THIRD FLOOR	40,000		
MEETING ROOMS	40,000		
BASEMENT	40,000		
MECHANICAL AND STORAGE	40,000		
TOTAL	214,000	77,000	10,000



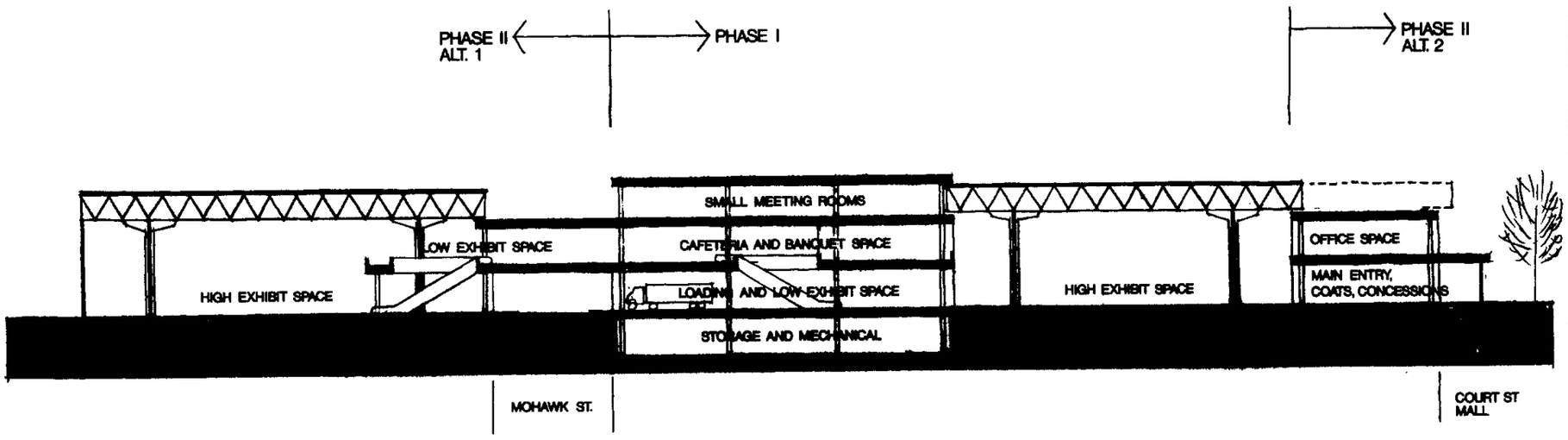
2nd Floor

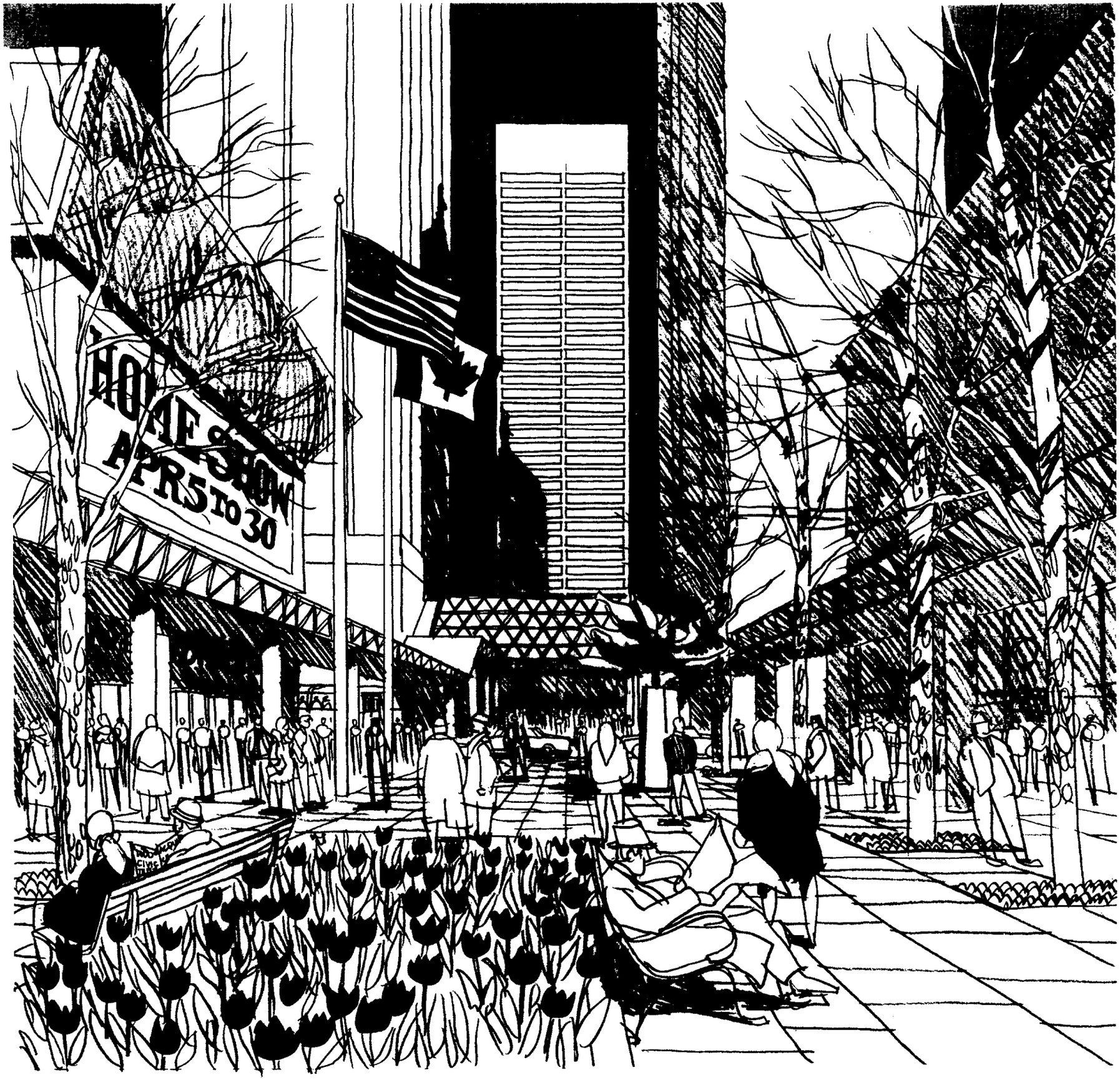


3rd Floor

First Phase

Second Phase





Court Street Entrance to Convention Center with View of Main Street Mall

5 Community College

Statement of the Committee on the Community College

The problem of supplying adequate facilities for education at the Community College level is one being actively pursued by many segments of the community. For a number of years a site for one of several community colleges planned for Buffalo has been sought in or close to the downtown area. The charge of members of the Community College Central Business District Study Committee is to address this question and to propose such a site. In response to the urgent need for facilities to fulfill existing demand for a downtown Community College the Committee submits the recommendation contained in the following pages.

Dr. Joseph Manch, Chairman
Max B. E. Clarkson
John L. Hettrick
George L. Wessel
The Honorable Joseph A. Tauriello
The Honorable Albert N. Abgott
The Honorable Frank C. Ludera

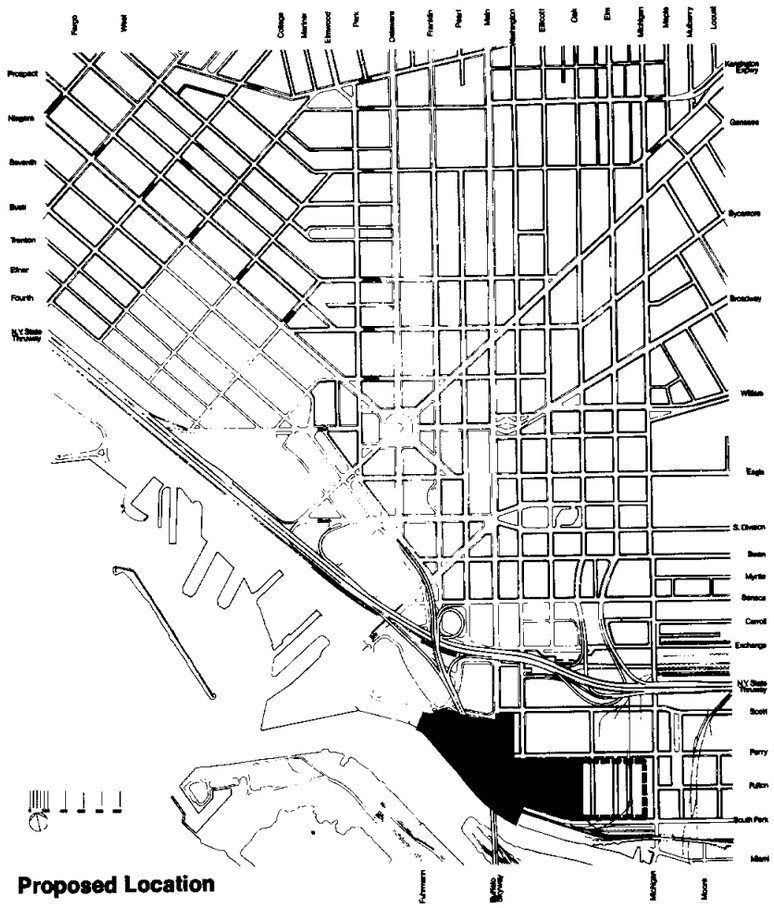
Program and Location

The new Community College is expected ultimately to serve approximately 4,000 students. While proximity to Downtown and mass transit are primary goals, the college's space requirements demand a site of approximately 50 acres. Athletic facilities and the spread out nature of classroom buildings impose this requirement for a large site. Sites answering this criterion are difficult to find in the downtown area.

County and City officials have proposed and analyzed seven possible sites in Downtown for the location of the college. Short and long term criteria were used to evaluate each site. Site analysis has been predicated on the need for supplying both temporary and permanent facilities within close proximity to one another. The purpose of this approach was that, since the college would have to begin its activities in temporary facilities, the permanent site should be close enough to minimize the disruption of moving.

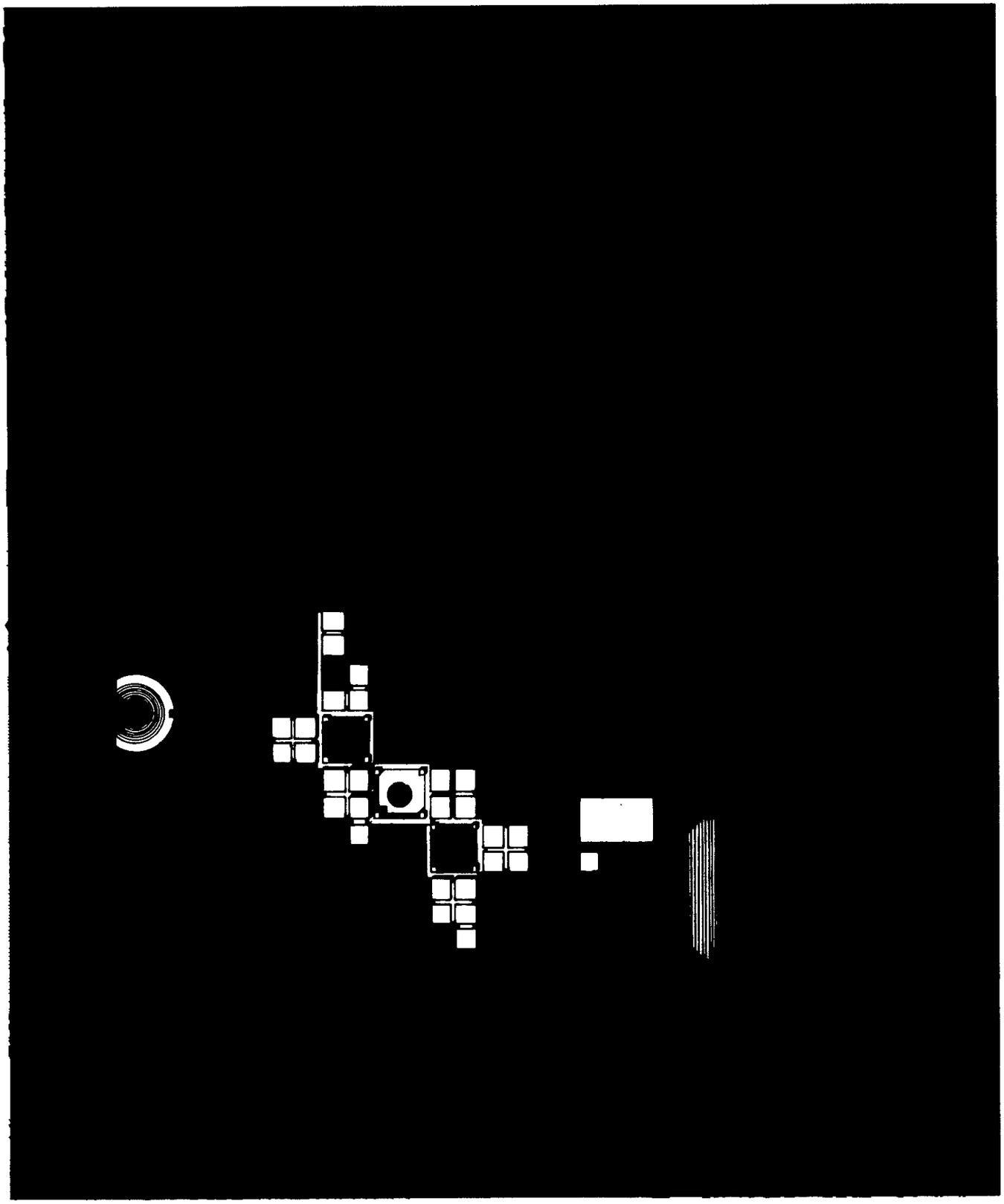
The criteria used in site evaluation were access to rapid transit, availability of parking, access to the expressway system, parking costs, land acquisition cost, availability, disturbance potential, expandability, availability to Downtown for work-study courses, and availability of convenience shopping. These criteria are not necessarily ranked in order of importance.

Analysis of the seven sites by the criteria listed on the opposite page indicates that the South Main Street site offers the greatest number of advantages and the fewest disadvantages. Mutual reinforcement of the goals of the college and goals for Downtown are best accomplished on this site. Access, parking availability, future plans for a City-owned parking structure and service by rapid transit all favor this site. Future expansion of the college facilities, an important factor in this era of increasing demand for higher education, would be possible on this site, with the future acquisition of the land from Mississippi Street east to Michigan Avenue.



Proposed Location

Acquisition costs are high, since the greater portion of the site would have to be acquired on the open market, but these additional costs can be more than offset by the fact that the Municipal Parking Authority can absorb the cost of the parking structure to serve the needs of the college. In other sites, this cost would have to be borne by the college. Parking demand would also be higher on other sites not having convenient access to high speed rapid transit.



Illustrative Site Plan

6 CBD Housing and the Downtown Periphery: An Investment Opportunity

Statement of the CBD Housing Committee

One of the benefits of the resurgence of Downtown as the cultural, retail, administrative and sports center of the Region is that it will become increasingly attractive as a place to live. No other area in the Region has the potential for variety and interest as the Downtown. As Downtown is increasingly found to be an attractive area in which to live, the present closed-after-5pm quality will disappear. After 5pm night life activity is extremely important to the future success of the resurgence of Downtown. Fortunately, there is a self generating feature in the nurturing of evening activities. After the first slow pioneering efforts, it becomes easier and easier to foster new activities. Again, fortunately for Downtown, the burden of being the "first one" is being taken off the private developer by the development now taking place in the Waterfront Urban Renewal Project Area. The Marina development and the Waterfront Areas A&B will begin to generate the around-the-clock population necessary to establish Downtown as an after 5pm environment.

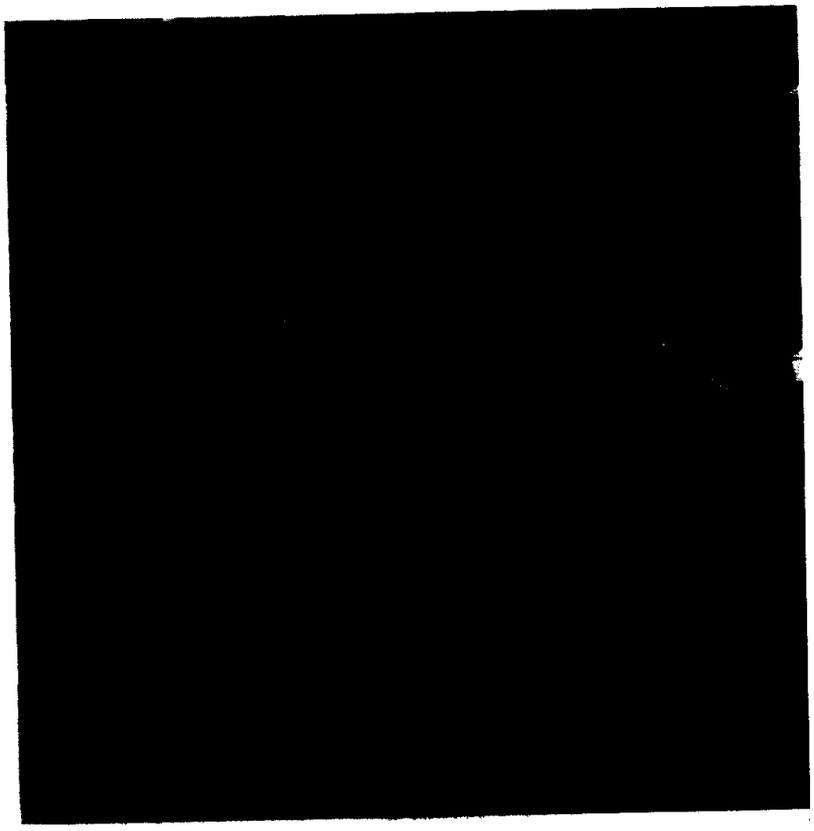
These projects will open-up new inter-racial housing development in Downtown in the next 10 years. These opportunities will be of two types. The area between Prospect, Elmwood and Carolina Streets presents a fine opportunity for creation of an intown "village". The rearrangement of the street pattern will eliminate through traffic. Johnson Park makes a small, pleasant central park. The second type of opportunity lies in high rise apartment buildings in the heart of Downtown, producing a completely urban residential environment not found anywhere in the Region.

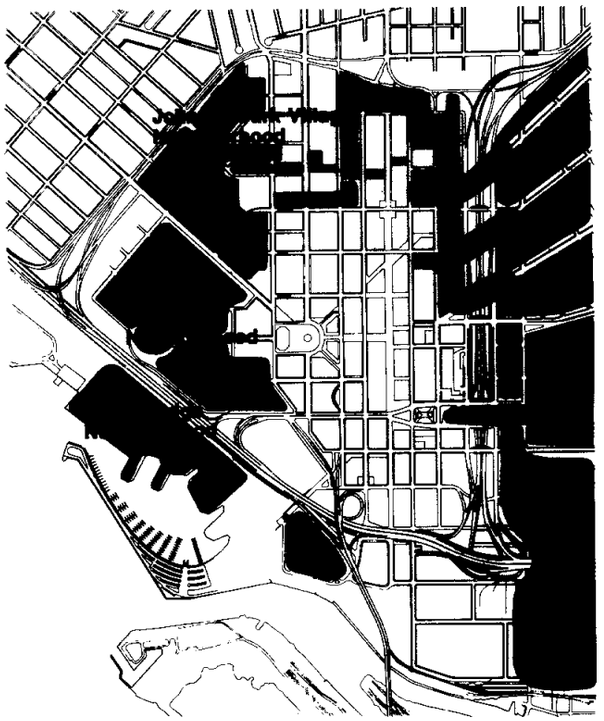
In short, Downtown will increasingly offer very attractive housing investment opportunities as implementation of the Downtown Plan proceeds.

John C. Donovan, Chairman
James L. Ammon
Donald J. Blair
Reverend G. Grant Crumpley
Don McCarthy
William P. Ackendorf
Arthur E. Lewin
Nelson H. Nichols, Jr.
Robert W. Ramsey
George F. Rand, III

Important "Non-Core" Downtown Investment Opportunities

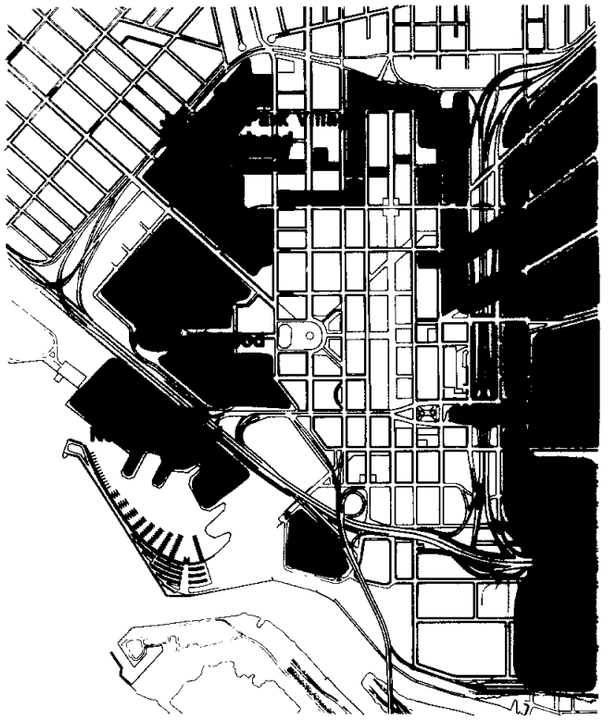
One type of investment opportunity possible in the downtown area and which has not been exploited anywhere else in the region is that which combines the unique qualities found in the recent leisure time retail and entertainment development of Ghirardelli Square and the Cannery, in San Francisco in the area around Fisherman's Wharf, and the older, equally successful Tivoli Gardens in Copenhagen. The development of a new image for Downtown by development of the Main Street Mall, the new convention center, the waterfront housing, the marina, the rebuilt auditorium and the Community College will produce a kind of glamor which will make Downtown an excellent place for this type of development. A possible site is in the Waterfront Project area straddling Erie Street between the marina apartments and the marina. It is called "Erie Quai". It has high visibility, a potentially glamorous location, accessibility from the expressway system, good access from Downtown at Erie Street and an excellent parking supply.





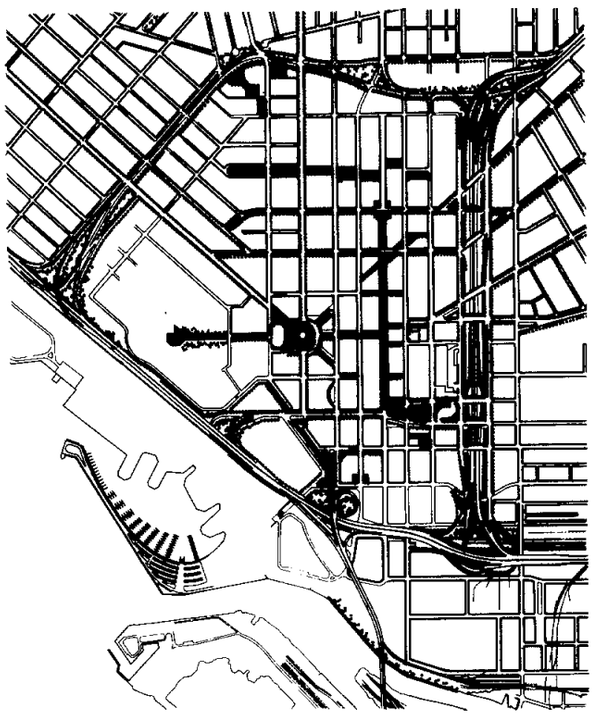
Housing

- Housing
- Service Industries



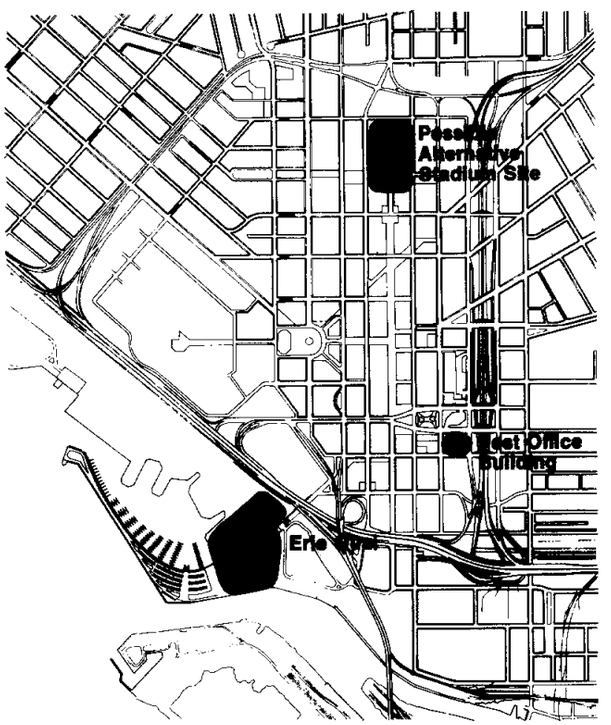
Housing and Service Industries

- Residentially Related Commercial
- Potential Bridge Uses for Residential Linkages
- Parks & Walkways



Landscape Plan

- Parks and Playgrounds
- Plazas and Pedestrian Ways
- Streets and Park Trees



Other "Non-Core" Investment Opportunities

Service Activities

As the Downtown core expands, many activities which occupy inexpensive space in the peripheral areas of Downtown will tend to be displaced by activities which can pay higher rents. Many of the activities likely to be displaced are important and valuable to the continued smooth functioning of Downtown. They will tend to compete for areas adjacent to the present downtown area, farther from the center than areas they presently occupy, but still within the proposed highway ring. Two basically different types of activity will compete for these areas. The first will continue to be such downtown service activities as various types of printing, some types of wholesaling, special products, etc. The other type will be housing and its attendent convenience services. Early in the period, demand will be low, but, as the implementation of the Plan proceeds, demand for housing will tend to drive out service activities. The market will prevail in this competition, but, in order to promote housing in the Downtown, zoning controls should be applied in certain areas gradually to separate downtown service activities from housing. Three possible patterns are suggested in the accompanying maps.

7 Timing and Next Steps

There are five major elements of the Plan which are in the public domain. Each of these is essential to success in implementation of the Plan. They are: (1) the convention center, (2) the high-speed rapid transit system, (3) the Main Street Mall, (4) parking, and (5) the highway system.

The implementation of each poses different organizational and financing problems. For some, such as parking and highways, smoothly working and successful mechanisms already exist and can be extended to handle the requirements of the Plan. For others, particularly the Mall, new devices are being established to carry out implementation. There are two facets to implementation of the Mall: sources of funds and organization for plannnig and operation after construction. Consideration of each facet is given below:

1 **Funding** Several possible funding sources have been examined:

1. The City,
2. A voluntary association of property owners, and
3. A local improvement district.

The voluntary association private corporation is unlikely to be successful, because it would require 100% acceptance of the Plan before it could be implemented. This leaves either direct City involvement or the formation of a quasi-public organization. The local improvement district as it is used in California is one possibility. The local improvement district has worked in some places, where permitted by law, and where the benefited property owners front on the Mall so that special tax levies can be made on a front foot or square foot of area basis.

It would require a corporation with both borrowing power and taxing powers. The borrowing power would have be be based on the City faith and credit, because the Mall could not immediately generate enough additional tax income to cover operating expenses in addition to that required for bond retirement. The setting up of a separate and parallel taxing structure not limited by the operation and maintenance constitutional limit imposed on the City would be expensive and repugnant to the taxpayers and voters.

The Plan for Downtown is so broad that most of the property encompassed does not abut the Mall. In fact the property that will benefit most from the overall development, and where most of the real property tax increase will be generated, is in the off Main Street areas where the private office buildings, the hotels and other profit opportunity structures will be erected following rapid transit and Mall construction. These benefits cannot be predicted in advance as the basis for tax levies but will be assessed as construction takes place. Also, the necessity of attaching the Mall roof structure to all existing buildings would call for coercive powers that only the City could wield. Direct City involvement is, therefore, the only practical method of funding the *capital* cost of the Mall. There are several advantages in this method. The direct City financing and construction of the Mall can be done under present law. The taxing power stays with the City under its present organization. The City can attach the Mall roof to existing structures. The City would retain title to the land and structure and can lease, directly or through an agency, space for use by tenants to produce income. The City could deal directly with the Transportation Authority re: rights-of-way for a transit system and for the joint construction and operation of station areas, etc. The City could apply for any State or Federal assistance that might be available through such agencies as UDC or HUD. UDC is already involved deeply in the Waterfront and Ellicott Projects and certainly could be available for involvement in other aspects of the Downtown Plan.

2 **Planning and Operation** The Business Community should form a non-profit corporation to promote the implementation of the Final Concept Plan and to contract for the management of the Mall and the convention center on behalf of the City, if the City so desires. In the planning stage the Corporation should:

1. Assist the Architects and Planners to project and provide uses of Mall space to provide maximum income from the space without unduly infringing on the rights of present or future occupants of existing retail establishments;

2. Coordinate as far as possible the joint planning of the Mall structure and the rapid transit system to minimize construction costs, avoid duplication of costs, and produce the physical layout best suited to achieve the desired results of both ventures;

3. Assist in the planning of the convention and exhibition center, with the added cooperation of the Buffalo Convention Bureau, the Hilton Hotels convention experts and any other needed consultants, to again provide the facilities best suited for Buffalo's needs; and

4. Investigate the operation and management of existing malls and convention facilities to determine the most desirable form of organization to provide when construction is complete and actual management necessary. During the construction period, conduct a search for the right men to employ as Mall Manager and Convention Center Manager. There are both specialized fields and require experienced and qualified people.

The cost of the Mall is now estimated to be $8,493,000 in 1970 dollars, and the time schedule indicates, at worst, a 5-year construction period beginning in 1974. The subway construction and Mall construction should be carried on simultaneously over a period of not much more than one year, and that even this could be staged by areas of Main Street so as not to interrupt business nor create undue hardships to the many merchants in the downtown area.

Construction costs possibly will be more stable in the future than in the recent past because of the very fine benefits incorporated into the present contract with the Building Trades together with a stabilization in construction material prices. However, a figure of $10,000,000 for construction and allied costs has been used in estimating the size of Bond Issue needed to finance the Mall. Also included is the cost of carrying a construction loan for $10,000,000, which is estimated to be $1,575,000 with the loan drawn down over the period of construction and repaid from the proceeds of the Bond Issue on completion of the Mall. Also included is $925,000 to cover the costs of the Bond Issue and other unforeseen costs. This computation indicates the need for a $12,500,000 Bond Issue. To retire this amount in 20 years with a 6% interest rate, the cost would be $1,075,000 per year.

The funds to pay this amount would come from the General Funds of the City of Buffalo. The Downtown Concept Plan shows a projected CBD sales level increase over 1967 sales of between $60,000,000 and $84,000,000. As sales in Downtown increased during the construction of Main Place, we suggest the base year for comparison be the year in which the decision to build the Mall is announced. It seems safe to assume a $60 million increase from that year, probably 1971 to 1990.

The convention center will be financed by a bond issue. Unlike the Mall, which will be amortized by increased tax yields (not based on increased rates but on new investment), the convention center will be amortized by revenues earned by the center.

That would produce increased sales taxes at the 1970 rate of $1,800,000 annually. The estimated increase in annual Property Tax Revenue is $6,900,000 by 1990 in the CBD. The total tax revenue would increase by $8,700,000.

In view of what has happened in Downtown Buffalo since the Arthur D. Little report and the Architects Collaborative report, we must assume that this study can be implemented and successful, also. With the on-going construction of the University, the housing program of the UDC in the Ellicott District and the Waterfront area, and the providing of rapid transit by the Niagara Frontier Transportation Authority, this Plan seems to have more promise of success than even the highly successful Urban Renewal, Phase I did in 1963.

Buffalo Central Business District
Comparison Goods Sales Alternatives

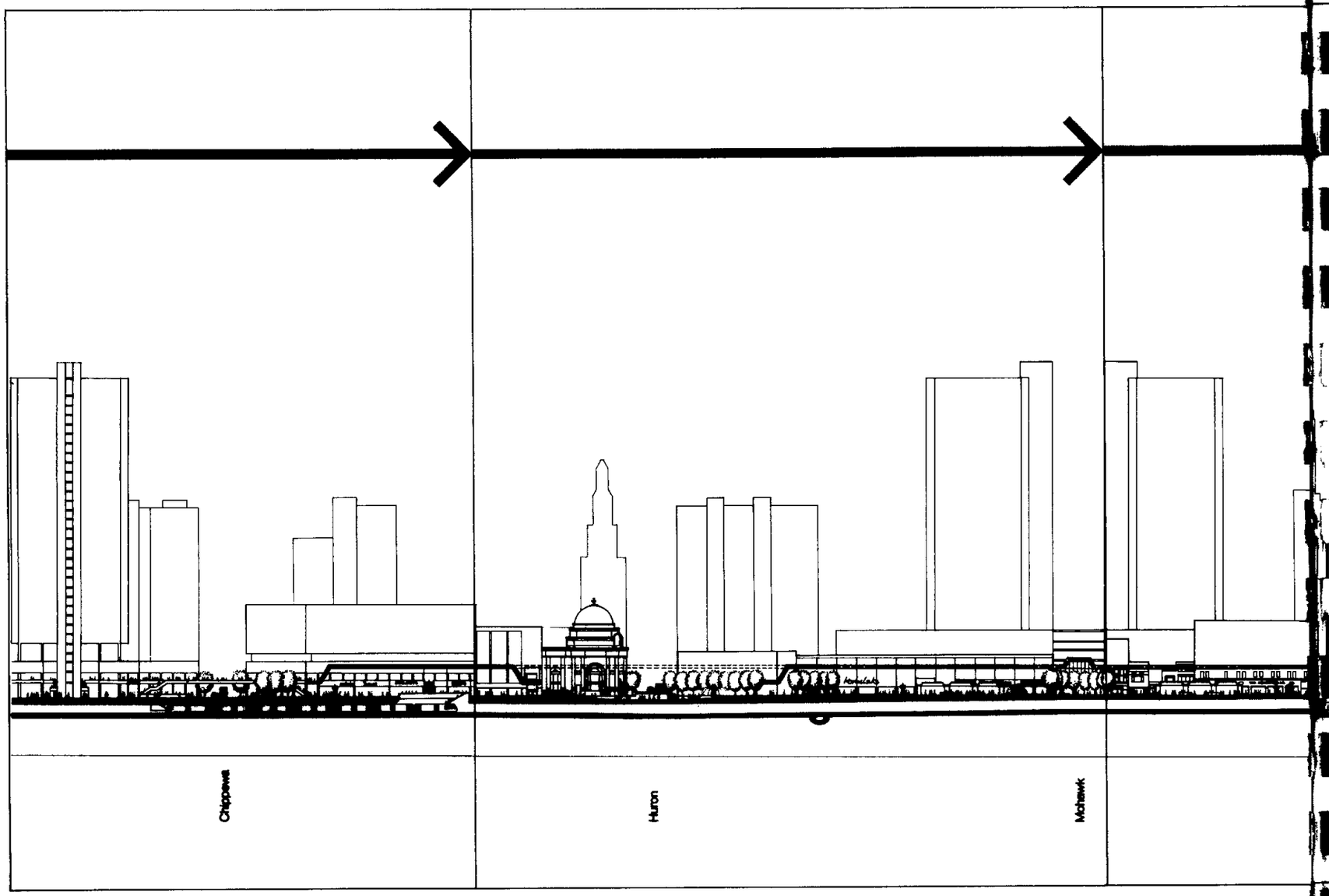
	1967	1975	1980	1985
SMSA Comparison Goods				
Sales Level Forecast	$630	$790	$830	$1,000
CBD Forecasts under Alternative Programs				
Low	$140	$158	$166	$ 200
High	$140	$177	$200	$ 224
Increase over 1963 Level				
Low	—	$ 18	$ 26	$ 60
High	—	$ 37	$ 60	$ 84
Additional Space Warranted @ $100 per square foot				
Low	—	180,000SF	260,000SF	600,000SF
High	—	370,000SF	600,000SF	840,000SF

Mall and Subway Construction Phasing

Mall Structure and Subway in Three Phases Between 1973 and 1976
Mall Landscaping Spring and Summer 1976
Entire Project Complete in October 1976 Ready for the Bicentennial Christmas Shopping Season

First Phase Construction 1973-1975
Theatre Station 1973-1975
Mall 1974-1975

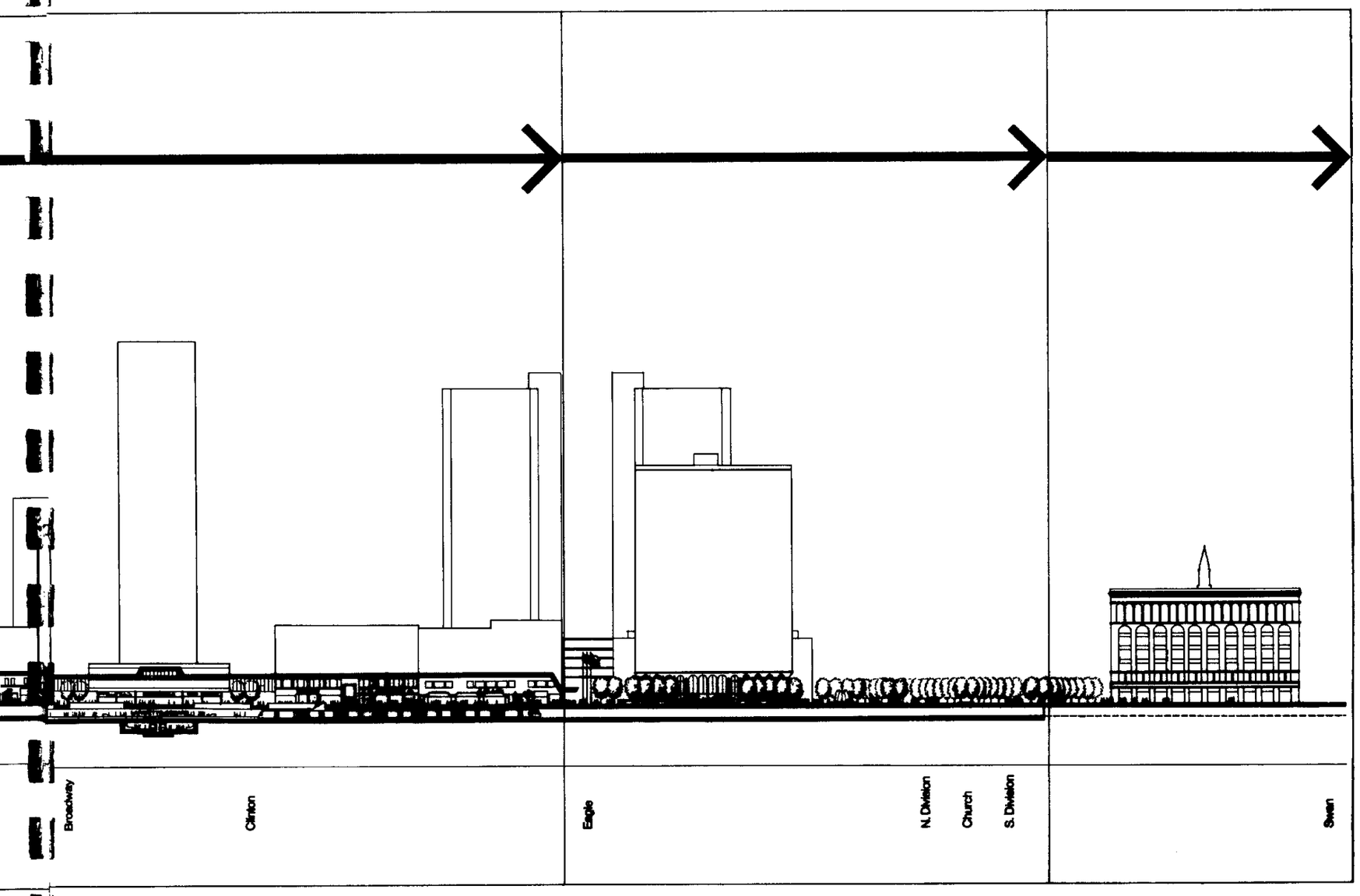
Third Phase Construction 1975-1976
Mall 1975-1976



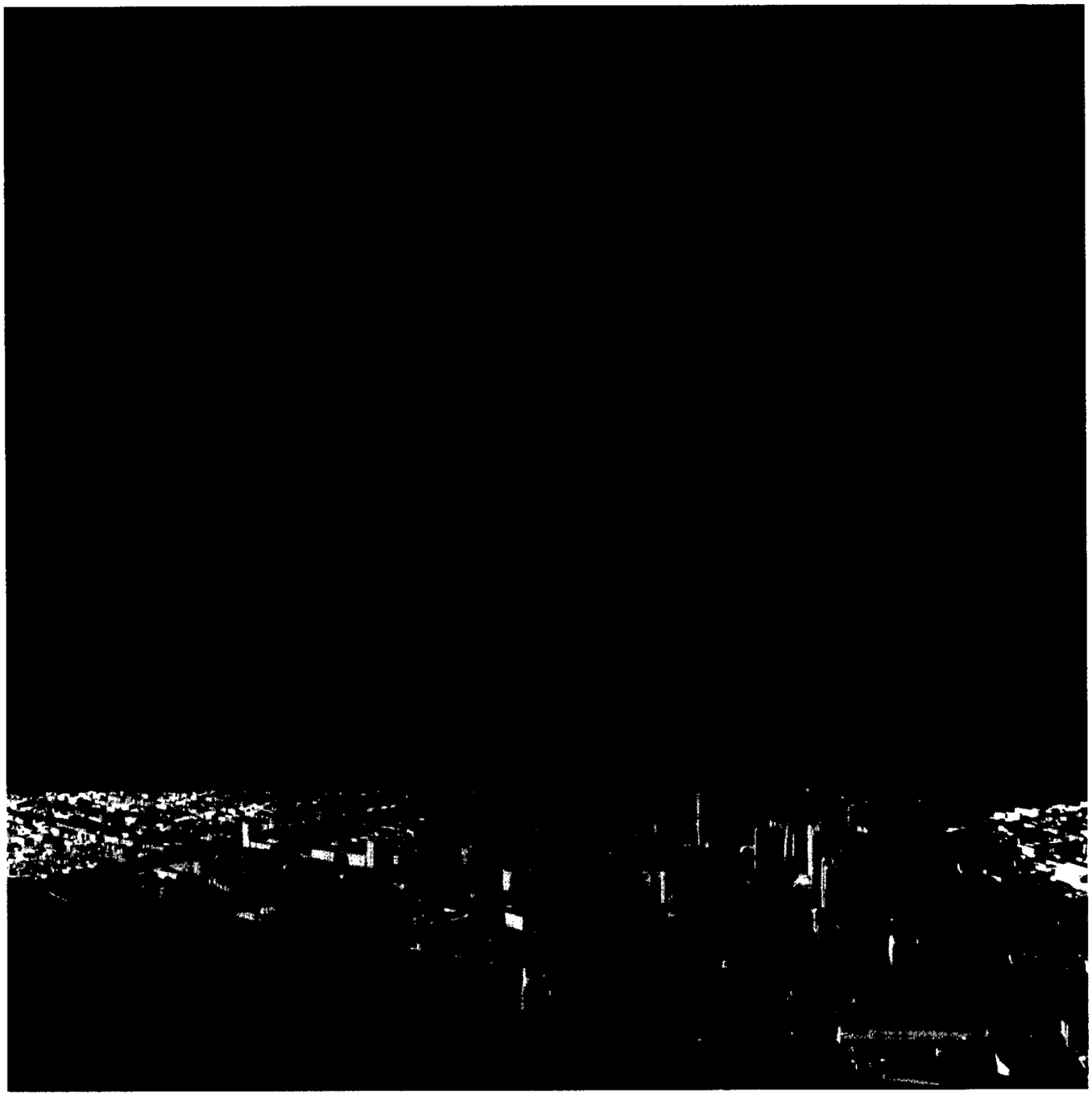
Second Phase Construction 1974-1976
Lafayette Station 1974-1976
Mall 1975-1976

Third Phase Construction 1975-1976
Mall 1975-1976

First Phase Construction 1973-1974
Subway 1973-1974
Cathedral Park 1973-1974



	1970-1975	1976-1980	1981-1985	1986-1990
Mall and Open Space				
Main Street Mall	Construction 1973-1976 along with transit subway.	Complete 1976.		
Downtown Landscape Plan including: *Pedestrian Ways *Street Trees,* Parks	Begin program.	Complete program.		
Rapid Transit				
Buffalo/Amherst Transit Line	*Construction of Downtown portion: section from Church to Goodell under Main Street. *Section from Church to Michigan via Pearl and South Park.	Complete remainder. Operation begun in 1976.		
Kenmore/Airport Line	Construct Lafayette Square Station.	Begin construction.	Complete construction. Operation begun in 1985.	
Bus System	Temporary route revisions during construction.	Reduction in number of downtown bus routes after completion of Buffalo/Amherst Line.	Further reduction in number of bus routes.	
Traffic and Parking				
Expressway System	Kensington Interchange, 1974-1975.	*Elm/Oak Arterial, 1977-1979. *Begin West Side Arterial, 1980.	Complete West Side Arterial, 1982.	
Street System *Mall Related Streets *Elmwood, Huron, Chippewa & Niagara Streets	*Permanently close portions of Main, Genessee, Mohawk, Court, & Eagle Streets for Mall & subway construction. *Make direction changes.			
Parking	City Court Building Ramp complete by 1975.	Development continues at the rate of 1000 spaces per year		
Office Space				
Private Office Space	*Complete 1st phase Marine Midland Center. *0.95 million sq. ft.	*1.6 million sq. ft. *Including Marine Midland Phase II.	2.1 million sq. ft.	1.5 million sq. ft.
Government Space	*Complete New Federal Office Building *New City Court Building			
Utility Companies		*New Telephone Co. Building (20 stories). *Additions to & re-modeling of existing Telephone Co. Building.		
Retail Space				
Existing Space	Improvements	Improvements		
New Space	250,000 sq. ft.	300,000 sq. ft.	300,000 sq. ft.	250,000 sq. ft.
Special Facilities				
Marina	Complete 1972 Boating Season.			
Convention Center	1st Stage Completed 1975.	2nd Stage 1978.		
Hotel/Motel	*Continued renovation of Statler-Hilton. *Waterfront Boatel 200 rooms, Phase I. New hotel 200 rooms.	*New hotel 400 rooms. *Marine Midland Hotel 400 rooms. *Boatel 200 rooms, Phase II.	New hotel 700 rooms.	New hotel 600 rooms.
Transportation Center	Completed 1974.			
Sports Arena	Completed 1973.			
Education				
Community College	Phase I, 1975.	Phase II, 1980.		
Waterfront Development				
Housing	Areas A&B Complete 2800 units.	1100 units (200-250/year).	1100 units.	1100 units.
Public School	Complete 1973.			
Convenience Retail		Complete 1976.		
Erie Qual (commercial)		Complete 1976.		
Existing Downtown Housing Rehabilitation	Continuing over 20 year period.			
New Downtown Housing		1100 units.	1100 units.	1100 units.



To the new generation of leadership emerging in Buffalo falls the task and the unique opportunity of maintaining and generating additional momentum in carrying out the Plan for the Regional Center. A strong partnership has been established between Mayor Sedita and his City Administration, the business community through the Buffalo Development Foundation, and the State through the New York State Urban Development Corporation. The opportunities and mechanisms for carrying them out are there. It remains to do the job. As Mayor Sedita has said, the opportunities offered in 1971 are in Buffalo historically equaled only by the coming of the Erie Canal.

Credits

This Plan is a report to the Mayor of Buffalo, Frank A. Sedita, and carried out at his request. Co-participants with the Mayor are the New York State Urban Development Corporation, Edward Logue, President and Chief Executive Officer, and the Greater Buffalo Development Foundation, Claude Schucter, President, and David Laub, Chairman of the Board.

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INDUSTRIAL PLAN

BUFFALO MASTER PLAN
Chapter VII

Major technological changes in manufacturing have significantly altered the land requirements for industry. These changes initiated the familiar trend of city industries migrating to the suburbs during the past two decades. The "snowball" effect of this trend has affected the locational preferences of many new industries in that they also seek locations outside the city. The reason for this decision is the demand for sufficient space to accommodate horizontal production methods. Frequently, cities have been left with a large number of obsolete and often vacant multi-story loft buildings. The ability of the City of Buffalo to develop a plan to adequately meet this situation is of major importance to the long-range economic vitality of the city. The Industrial Plan is an important part of a total program of economic development.

The scope of the problem is set forward in the Economy (Appendix C), which estimates 700,000 jobs in the Buffalo Metropolitan Area by 1990. Of these jobs, more than one-half are in the fields of manufacturing, motor freight and warehousing, wholesale trade, construction, transportation and public utilities. This section of the Master Plan will provide estimates of the number of these jobs which can be expected to be located in Buffalo, the type and size of industry best suited for location in the city, and the development of these estimates into an Industrial Plan. To give general developmental guidelines, the plan indicates:

- *Areas of the city to remain industrial.*
- *Vacant land suitable for immediate industrial development or to be reserved for this purpose.*
- *Existing nonindustrial areas to be redeveloped for industry.*
- *Industrial areas to be vacated for another purpose.*

INDUSTRIAL PLAN

OBJECTIVES AND POLICIES

The Industrial Plan proposes the consolidation of existing industrial areas and the orderly development of industrial growth. Buffalo became a major center of manufacturing and heavy industry following its commercial peak brought about by the old Erie Canal. A slump occurred in industrial activity after World War II. Favorable prospects for improvement of Buffalo's economy lie in the expansion of services and other non-manufacturing employment, while stabilizing itself as a manufacturing center. Job development and manpower training are important considerations in industrial planning. Specific industrial policies follow:

1. Removal of substandard facilities - Obsolete and deteriorating industrial structures should be rehabilitated or cleared. Improved environment should be sought for existing uses as well as for new facilities.

2. Encourage industrial developments - In order to supply employment opportunities and to increase the city's tax base to assist in providing revenues for other programs, industrial uses will be encouraged to build or expand in keeping with the proposals of the master plan.

3. Increase the skilled labor supply - Through training or retraining programs, an increase in the skilled labor supply will both assist individuals and attract new employment opportunities.

4. Concentrate related uses - Industrial uses which are related in function should be encouraged to develop in close proximity to one another.

5. Buffers should be provided between incompatible uses.

PATTERNS AND TRENDS OF INDUSTRIAL LOCATION

Buffalo during the last two decades has been declining percentagewise and numerically in manufacturing employment. Even in industries experiencing employment increases, the rate of growth has been relatively slow. The city is affected by the outmigration of city firms to suburban locations and the choice of outside firms locating in the metropolitan area of sites beyond the city boundaries.

A study of the location of existing industries within the city used a ring analysis method. The location characteristics of the zones, relevant to industry types and locational influence factors, were studied, and the results are summarized in Table 1 and Table 2.

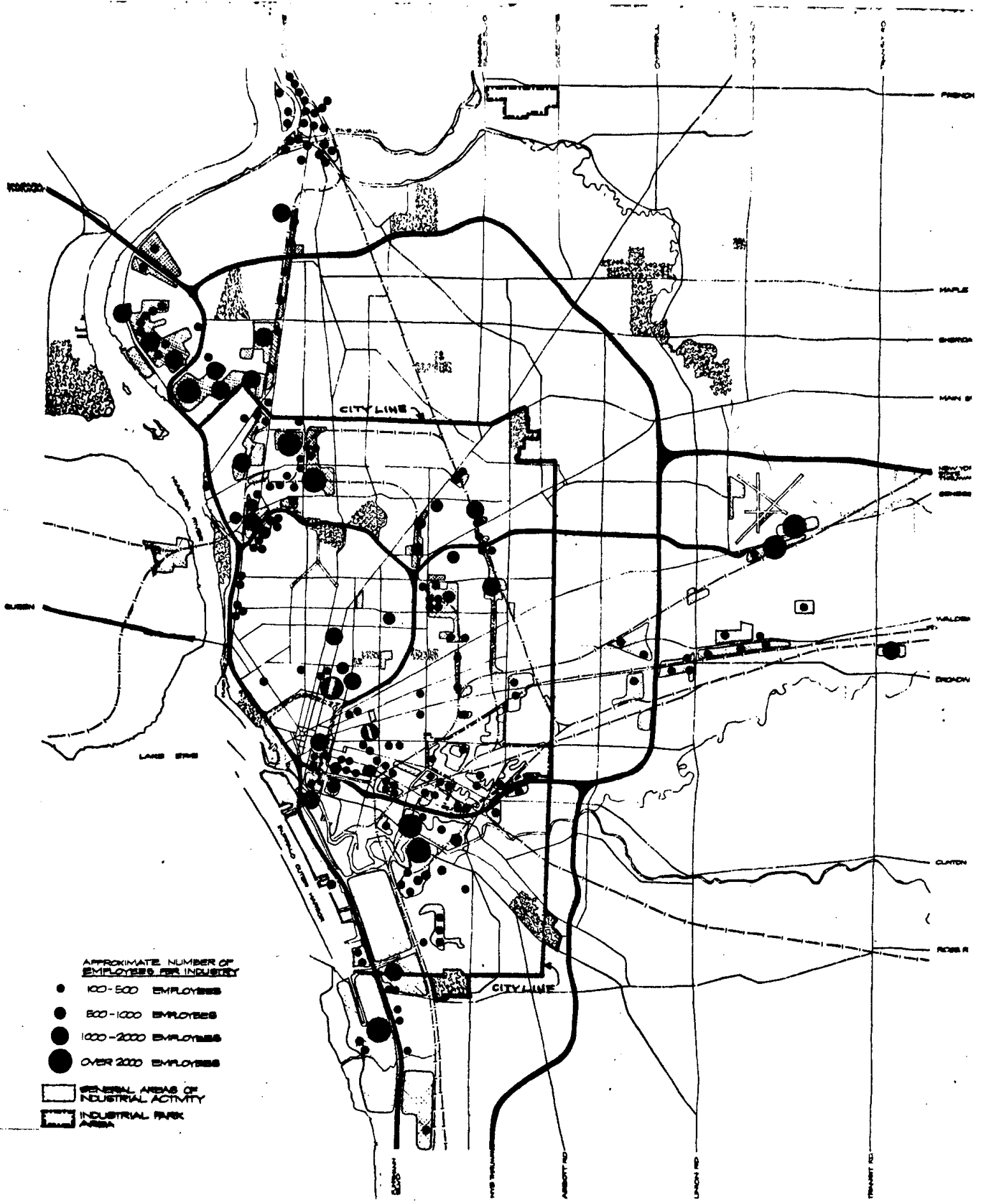
TABLE 1

LOCATION CHARACTERISTICS OF INDUSTRIAL ZONES IN BUFFALO

	A Inner Zone	B Middle Zone	C Outer Zone & Waterfront
Zone Description	Inner City is small, and goods manufacturing and handling industries occupy only a small portion of the total area. Floor area ratios and employee densities are high. A sizable portion of goods handling employment is concentrated in this zone.	Larger than Inner City, much of the space is devoted to goods handling firms. Floor area ratios and employee densities are lower, but the two inner zones employ nearly two-thirds of all goods handling workers in the city.	This is a vast area with a number of distinct districts. Floor area ratios vary, but are generally much lower. Similarly, employee densities are lower. Much land used for railroads, terminals, docks. Area contains industrial land reserves. Suitable for developing urban "Industrial Parks" with accompanying amenities and prestige.
Zone Locational Advantages	High accessibility to Inner City markets for unstandardized time-sensitive products. Good linkage to business service requirements, offered only in the Inner City. Availability of varied and flexible work-force utilizing excellent public transit facilities.	Accessible to Inner City services and markets. Highly desirable point of distribution with added access to post office, less-than-carload rail facilities. Good location to regional markets and the availability of a large, low-wage work-force via public transit.	Inter-industry linkages in metal working industries; availability of large skilled work force, transported by automobile and public transit. Good rail and port access for heavy, bulky imports and exports. Availability of abundant process and cooling water from lakes, rivers and wells. Excellent point of distribution with quick access to inter-regional highways.
Zone Industry Retention Factors	Small firms are able to utilize unspecialized space in multi-story buildings. Firms can tolerate congestion (small volume, high value goods) and do not generate nuisances.	Slightly greater need for specialized space requirements for high volume of goods handling merchandise. Tolerance of nuisance and congestion, although nuisance generation is moderate.	Medium and large firms can provide own service requirements. Firms with extensive land requirements but low per square foot productivity can find adequate sites. Noxious processes are tolerated. Low cost for large land sites. Higher wages allow for work force spread thin to drive greater distances to work. Adequate land available for expansion.
Vacant Land and Space in Zone	Limited supply of vacant land, although a supply of vacant floor space is available in varied condition and price. This zone has highest industrial rate of turnover.	Small supply of existing vacant land; however, industrial renewal will make additional space available.	Vacant land available in large tracts, although much of this land requires public utilities and better access.

TABLE 2—FACTORS INFLUENCING INDUSTRIAL LOCATION

Locational Factors	Influencing Factors
Ability to pay for land.	Value added per worker. Floor area ratio. Value added per square foot of floor space.
Economic advantages of central locations, willingness to pay for central location.	Existing location of similar firms. Market and/or supply linkages. Labor force and transportation requirements.
Ability to do without business services.	Dependence upon business services. Firm size distribution.
Ability to utilize small tracts of land.	Firm size and location. Typical plant plot size. Parking requirements.
Toleration of nuisances. Generation of nuisances and sensitivity to nuisance regulations.	Zoning classification. Firm location within industrial district.
Special resource or facility requirements.	Rail siding, water transport and cooling water.
Desire to reserve land for future growth.	Industry growth rate. Speed of technological change.

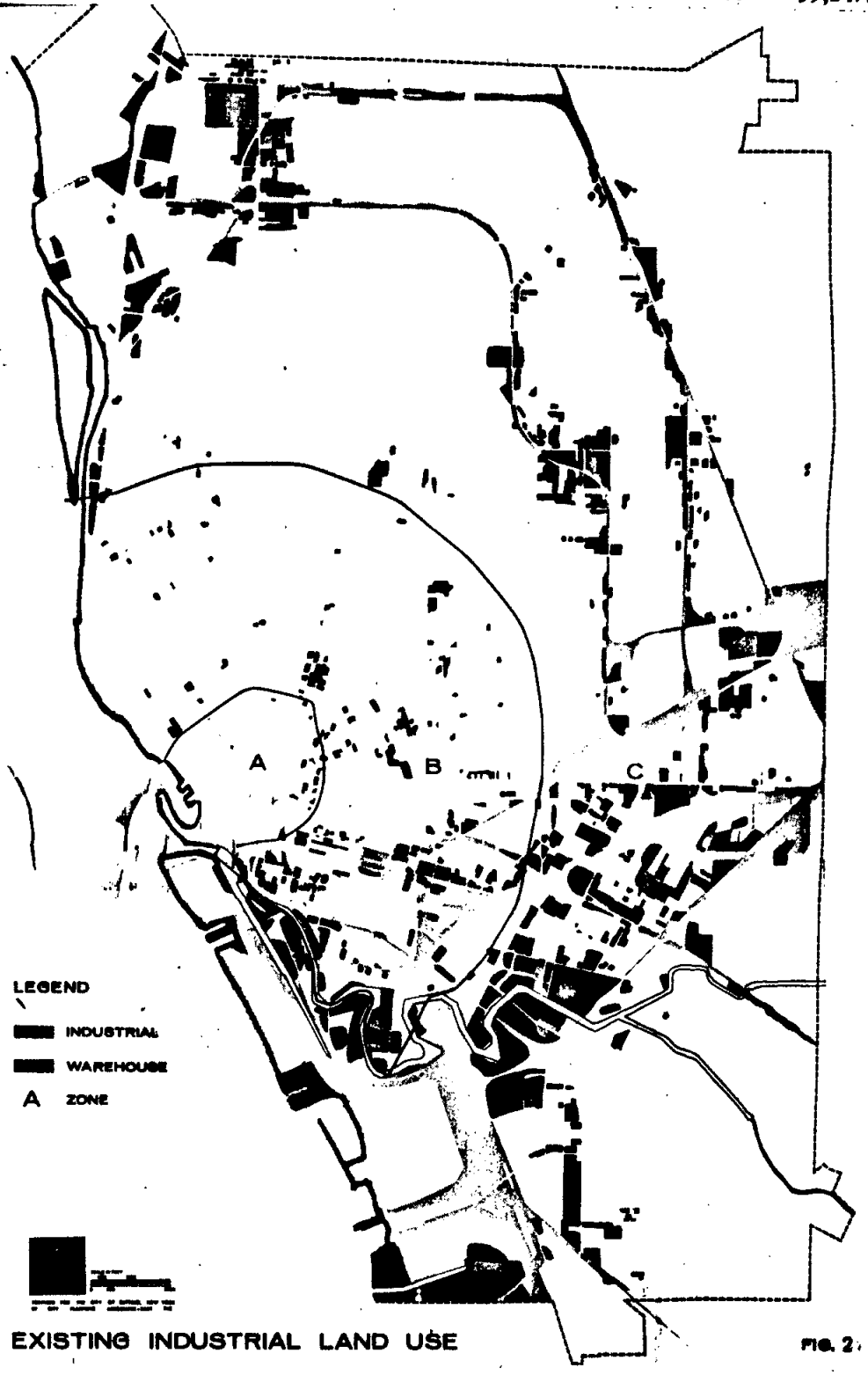


LOCATION OF MAJOR INDUSTRIES

FIGURE 1

TABLE 3–CITYWIDE DISTRIBUTION OF INDUSTRIAL FIRMS BY ZONE

Zone	No. of Firms	No. of Employees	Total Floor Area (Sq. Ft.)	Floor Area Ratio	Floor Space Per Employee	Employees Per Acre	Land Area (Sq. Ft.)	Land Area (Acres)	Acres Per 1,000 Employees
A	36	3,271	999.2	1.23	303	177	808.0	18.5	5.6
B	114	20,051	8,312.7	1.00	415	105	8,353.8	191.8	9.5
C	192	37,623	17,283.5	.57	459	55	30,085.9	690.7	18.4
Totals	342	60,945	26,595.4	.68	436	68	39,247.7	901.0	14.8



EXISTING INDUSTRIAL LAND USE FIG. 2

INDUSTRY EMPLOYMENT LOCATION

The distribution pattern of major industries is contained in Figure 1. The industrial survey conducted for this analysis was limited to those firms employing 25 or more persons. Each firm was classified according to the 3-digit Standard Industrial Classification (S. I. C.) Code and surveyed for information relating to the number of employees, total floor area, and total site area.

From this information, valuable utilization ratios were obtained pertaining to floor area ratio (total floor area divided by total site area), floor space per employee, employees per acre, and acres per one thousand employees. The end result of this industrial analysis was the development of standards for determining the future space requirements of industry in the City of Buffalo. Table 3 summarizes, on a zone basis, the information obtained from the survey.

In terms of employment concentrations, shown in Table 4, the Outer Zone and Waterfront (C) contain nearly two-thirds of the present industrial employment, and the bulk of the heavy industrial uses. The Middle Zone (B) contains one-third of the industrial employment, which is characterized by both heavy and light manufacturing uses. The Inner Zone (A) has only 5 percent of industrial employment on 2 percent of the industrial land, and most industries are confined to light manufacturing processes.

In order to ascertain the amount of land required by industry in the future, it was necessary to estimate future employment according to industry group and then translate these estimates into future space requirements based upon acceptable standards. By 1990 it is estimated that the metropolitan area of Buffalo will have approximately 193, 000 persons employed in the field of manufacturing. A continuation of past trends will place about 45, 000 of these employed persons in the City.

SPACE STANDARDS AND LAND SUPPLY

The variable ways in which industries utilize space complicate the problems of finding suitable locations for manufacturing and distribution activities. There are several means of expressing industrial space use. This analysis uses floor space per worker and floor area ratio. The industrial survey indicated that firms with comparable floor area ratios have a tendency to group together. Determining land requirements, therefore, requires the establishment of standard floor area and floor space per worker ratios in each industrial zone, even though these standards will vary somewhat for specific industry groups within each zone. Table 5 summarizes these standards.

Applicable standards for employees per acre and acres per one thousand employees are similarly contained in Table 5. These standards are necessary to determine the amount of land industry can be expected to occupy with known employment estimates. When applied to the estimated number of employees in each zone, the result indicated a need for approximately 1400 acres of

TABLE 4 - EMPLOYMENT DISTRIBUTION BY ZONE (in percent)

	A Inner Zone	B Middle Zone	C Outer Zone and Waterfront
Food	-	55.9	44.1
Textiles	-	18.2	81.8
Apparel	16.6	62.9	20.5
Lumber	12.7	12.6	74.7
Furniture	-	18.7	81.3
Paper	3.7	84.2	12.1
Printing	37.4	45.1	17.5
Chemicals	1.3	15.5	83.2
Fuels	-	-	100.0
Rubber	2.5	6.2	91.3
Stone	-	24.3	75.7
Primary Metals	-	2.0	98.0
Fabricated Metals	7.8	13.5	78.7
Nonelectrical Machinery	4.1	28.3	67.6
Electrical Machinery	4.6	26.7	68.7
Transportation	-	42.2	57.8
Precision Instruments	11.5	22.0	66.5
Miscellaneous	9.9	72.2	17.9
Total	5%	33.3%	61.7%

TABLE 5-PROPOSED INDUSTRIAL STANDARDS

ZONE	ESTIMATED NO. OF EMPLOYEES	FLOOR-Area RATIO	FLOOR-Space PER EMPLOYEE	EMPLOYEES PER ACRE	ACRES PER 1000 EMPLOYEES	ACREAGE REQUIREMENTS
A	1,100	1.5	300	150	7	8
B	11,400	1.0	450	50	20	228
C	32,500	0.5	600	30	35	1138
	45,000					1374

industrial land for manufacturing purposes. The proposed industrial standards reflect the modern trend toward lower employment densities imposed by increases in ground floor space requirements.

Wholesale trade employment is expected to increase sizably in the city for four reasons:

1. The advantages of Buffalo (as a central city) offer it as a center for metropolitan area distribution;

2. Buffalo's importance as a transportation transfer point;

3. The use of obsolete industrial sites, well served by railroads and streets, for warehousing is a logical replacement;

4. The ideal location of proposed distribution areas situated between the central core of the city and the suburbs. In addition ample transportation facilities (water, rail and highways) are provided.

Percentagewise, the city could obtain 70 percent of the metropolitan area employment in this field, which by 1990 should exceed 23,000 jobs in the city. Using the worker density of 22 employees per acre from the inventory, the 1990 land requirements for warehousing uses should increase to approximately 1050 acres.

THE PLAN FOR INDUSTRY

The proposed Industrial Plan indicates areas for industry, warehousing and mixed areas of both activities. The distribution plan, while not drastically different from that which exists today, strongly urges a capitalization upon the transportation advantages within the city and defines the relationship of industrial uses to other major land uses. In addition, it implies a more efficient utilization of these industrial areas. The industrial locations are accessible by city and suburban employees. Figure 3 shows the proposed distribution pattern for industrial land use.

The location of the railroad facilities in the city was a major factor in locating and differentiating future industrial areas. The survey of existing land use indicated there was more than a total of 2,250 acres of railroad land, of which 1,900 acres were used for rail facilities. Vacant railroad land within industrial areas has been proposed for future industrial land use while vacant railroad land on the periphery of industrial areas has generally been proposed for other uses.

The orientation of the railroads in Buffalo makes it difficult to alter industrial land uses appreciably. The Plan concentrates industrial and distribution activities in proximity to major rail systems in the city.

TABLE 6 - WHOLESALE TRADE EMPLOYMENT, 1929-1967

In Thousands

Year	City	SMSA	City as a %
1929	14.6	15.6	93.6
1939	10.6	11.7	90.6
1948	17.4	20.1	86.6
1954	18.7	23.8	78.6
1958	18.0	22.5	80.0
1963	15.2	21.6	69.4
1967	16.4	24.9	65.9

TABLE 7 - WHOLESALE TRADE EMPLOYMENT, PROJECTED 1975-1990

In Thousands

Year	City	SMSA	City as a %
1975	17.6	28.4	62.0
1980	19.3	29.7	65.0
1985	20.4	31.3	65.0
1990	23.1	33.0	70.0

TABLE 8 - 1990 ACREAGE ADJUSTMENTS, INDUSTRY AND WHOLESALE-WAREHOUSE

Land Requirements Based Upon Employment Estimates

Industry	1374 Acres
Wholesale-Warehouse	1050
Total	2424 Acres

Land Areas Allocated in Proposed Land Use Plan

Industry	1050 Acres
Wholesale-Warehouse	503
Mixed Industry and Wholesale-Warehouse	1087
Total	2640 Acres

Gross Acreage of Mapped Industry and Wholesale-Warehouse Areas

Major Land Uses	2640 Acres
Streets	360
Railroad Facilities	1300
Additions *	400
Total	4700 Acres
Interior Reserve and Port Reserve	600
	5300 Acres

* Including space for streets, water, sidings, unusable space, buffers

Another important consideration in locating industrial areas and the sizing of distribution activities was the past and future importance of the Port of Buffalo. The city enjoys a strategic geographic location at the eastern end of Lake Erie at the head of the Niagara River. More detailed comments on the Port of Buffalo are presented in Appendix D. These are taken from the report "Buffalo Waterways," City Planning Board, 1970. The economic importance is manifest in the port's continuing program of improvements. Industry and commerce are provided with a deep water harbor in the Outer Harbor. Future port development may occur in the under-developed area between the Buffalo River and the southerly city line. A sewer line in Fuhrmann Blvd. would assist in such development. Other future improvements include possible future reclamation of additional land and the possibility of a Lake Erie-Lake Ontario Canal on the American side of the Niagara River.

Long-range port planning is now part of the responsibility of the Niagara Frontier Transportation Authority. Water shipment of goods is the most economical and least pollution-producing means of transport. The great decline in Great Lakes shipping, however, indicates that many more factors are involved in the complex transportation industry. These include regulation, subsidy and tax exemption. Much of the future of waterbourne commerce on the Great Lakes may rest in the political sphere.

There is a designation of industrial reserve in the south industrial district for future industrial expansion beyond the projected 1990 needs. An area previously in this category, the Tifft Farm area, has been reclassified into an open space reserve category. This should prevent overly-intensive industrial development in this area, provide relief and protect the natural wildlife preserve character of this land already existing.

In the plan the three industrial classifications indicate light, medium and heavy industrial categories from one to three respectively. The mixed classification indicates mixed industrial and warehousing areas. The industrial reserve classification indicates potential industrial land that is not at the present time seen as being needed by 1990. An exception might occur in the port area where unforeseen factors in water shipment might result in development of land adjacent to the harbor, perhaps on land fill. Additional reserve land for the more distant future could be obtained through the consolidation of railroad facilities in industrial areas.

CONCLUSIONS. In effectuating this plan, some industries will require little or no improvement to their facilities. Some will require measures to reduce polluting effects of their activity; see Appendix E. Other plants may require clearance and renewal. Large scale site improvements will be necessary to make some areas attractive, both in a financial and a visual sense, to prospective developers.

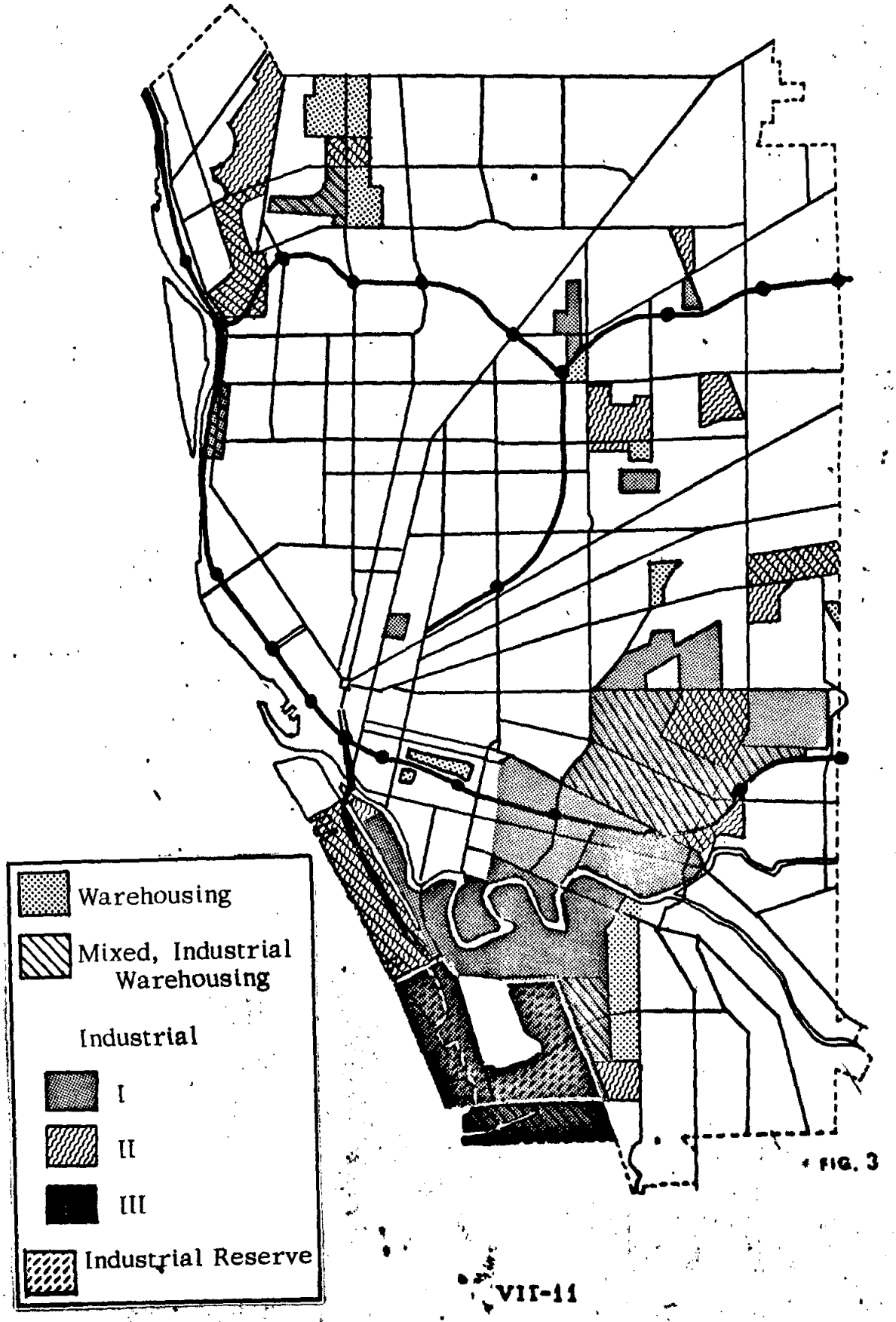

Warehousing
Mixed, Industrial Warehousing
Industrial
I
II
III
Industrial Reserve

FIG. 3

The relationship between industrially oriented land and residential land requires careful consideration. Many residential areas, now structurally deficient, are located in poor proximity to deteriorated industrial uses. These incompatibilities need to be minimized and buffered.

Northward from Times Beach, the master plan intends to portray a continuous "park-like" character of lake and river front development. Such character may include all uses, be they residential, commercial, industrial or public in nature. In this sense, character is more important than use.

The industrial plan provides a basis for guiding industrial development in Buffalo. Implementation of the plan and the construction and reconstruction of industrial facilities requires active control and guidance.

An analysis of the existing utilization of land within the City of Buffalo was undertaken in preparation of the 1964 Master Plan. This inventory remains the base of studies for the master plan. The tabulations are adaptable to changes. Land use data was prepared on a block, neighborhood and community basis. In addition the data was presented on a half-mile concentric ring basis focused on the C. B. D. For the purposes of the industrial plan, the city was divided in three zones, the inner zone, the middle zone and the outer and waterfront zone. The last contained nearly two-thirds of industrial employment. Zones were used to estimate future space requirements based on the different considerations in the zone areas. Space requirements were based on the existing situation modified by industrial trends.

A high concentration of industrial and related uses in rings 5 through 8 can be attributed directly to the location of the belt railroads in the area. In the period of greatest railroad development of the last century, the belt lines surrounded the then developed areas of the city. The time periods following found urban developments engulfing the belt lines and areas beyond them.

Tables A-1 and A-2 indicate warehouse and wholesale, industrial and railroad uses by community and by ring.

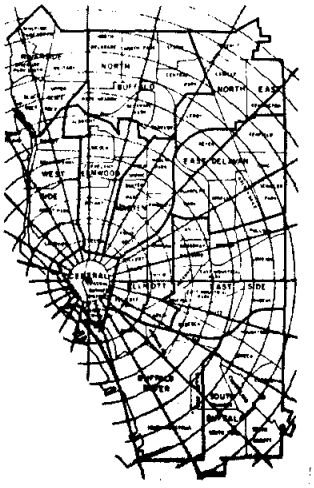
TABLE A-1 -- INDUSTRIAL USES BY COMMUNITY

	Buffalo River Community	Central Community	East Delevan Community	East Side Community	Ellicott Community	Elmwood Community
	Acres	Acres	Acres	Acres	Acres	Acres
WAREHOUSE AND WHOLESALE	189.47	32.34	68.75	166.95	54.44	5.24
Warehouse and Wholesale	48.44	29.52	27.74	123.85	44.19	5.24
Open Storage	141.03	2.82	41.01	43.10	10.25	–
INDUSTRIAL	737.22	40.49	195.88	302.39	70.44	6.52
Light and Medium	101.88	23.92	71.96	91.88	33.59	6.52
Heavy	635.34	16.57	123.92	210.51	36.85	–
RAILROADS	739.36	48.79	123.10	840.07	104.67	–
Railroad Facilities	567.59	29.52	83.99	751.92	94.23	–
Railroad Vacant	171.77	19.27	39.11	88.15	10.44	–

	Masten Community	North Buffalo Community	North East Community	Riverside Community	South Buffalo Community	West Side Community
	Acres	Acres	Acres	Acres	Acres	Acres
WAREHOUSE AND WHOLESALE	12.19	96.42	29.94	139.01	11.60	51.74
Warehouse and Wholesale	3.08	59.34	12.10	91.23	8.86	15.34
Open Storage	9.11	37.08	17.84	47.78	2.74	36.40
INDUSTRIAL	56.85	80.83	55.39	267.24	68.06	59.55
Light and Medium	36.70	46.41	22.89	89.41	7.61	36.54
Heavy	20.15	34.42	32.50	177.83	60.45	23.01
RAILROADS	–	140.68	25.94	178.19	34.98	34.15
Railroad Facilities	–	132.63	25.94	174.29	34.70	30.85
Railroad Vacant	–	8.05	–	3.90	.28	3.30

TABLE A-2 -- INDUSTRIAL USES BY RING

Ring	Warehouse & Wholesale Acres	Warehouse & Wholesale As % of Total W/W Acres	Warehouse & Wholesale As % of Ring	Industrial Acres	Industrial As % of Total Industrial Acres	Industrial As % of Ring	Railroads Acres	Railroads As % of Total Railroads Acres	Railroads As % of Ring
01	14.22	1.7	2.7	16.17	.8	3.1	19.18	.8	3.6
02	64.54	7.4	4.1	104.60	5.3	6.7	74.46	3.3	4.8
03	49.89	5.8	2.7	98.76	5.1	5.3	103.05	4.5	5.5
04	47.24	5.5	2.1	110.95	5.7	4.9	147.65	6.5	6.5
05	85.85	10.0	3.3	265.50	13.7	10.2	340.89	15.0	13.1
06	167.39	19.5	4.0	466.96	24.1	11.3	557.65	24.6	13.5
07	99.67	11.6	3.1	322.65	16.6	10.0	191.50	8.4	6.0
08	176.30	20.6	4.2	316.23	16.3	7.5	621.25	27.4	14.8
09	127.60	14.9	3.5	201.67	10.4	5.5	113.06	5.0	3.1
10	24.01	2.8	1.1	34.54	1.8	1.6	99.54	4.4	4.7
11	1.04	.1	.1	2.83	.2	.3	1.70	.1	.2
12	.34	.1	.1	0	0	0	0	0	0
Total	858.09	100.0	3.2	1,940.86	100.0	7.1	2,269.93	100.0	8.3



A significant change from the original Master Plan of 1964 occurred in 1967. The City Planning Board reduced the planning population of the city from 615,000 to 500,000. Even though the city might not obtain this population by 1990, the 500,000 figure has become the planning population for the city.

The primary source used by the city for population projections for the Standard Metropolitan Statistical Area is the Cornell Aeronautical Laboratory study of 1969. The metropolitan and Erie County population figures have been utilized. However a basic assumption in the City of Buffalo population figures does differ. Inherent in the program designed by C. A. L. to produce its projections was the assumption that the city would continue to lose people to 450,000 by 1980. The movement from Buffalo would take place in accordance with the patterns shown during the period between 1960 and 1966. The Division of Planning agrees in the continuing decline of city population. Its 1967 study, however, assumed a change in the 1960-1966 pattern for both abstract and concrete reasons. Changes in attitudes and transportation facilities, it was felt, would change development patterns. In addition, the housing inventory of the city proper was seen as improving. Construction of units was to balance and then pass demolition of units. The decline after 1970 was modified by these considerations. The population was based on the number of housing units available, even with an increased vacancy rate.

The population figures used in determining various considerations of the industrial plan depend more on the county and SMSA figures than the figures of the city proper. The figures used by the Division of Planning are shown in Table B-1. Comparison of four studies for SMSA and Erie County are shown in Table B-2. Table B-3 presents a number of population studies for comparison purposes.

TABLE B-1 - POPULATION PROJECTIONS

Figures in Thousands

	1975	1980	1985	1990
SMSA	1421	1487	1567	1652
ERIE CO.	1171	1224	1289	1359
BUFFALO	460	470	485	496

TABLE B-2 - POPULATION PROJECTIONS, FOUR STUDIES

Figures in Thousands

	E-N Basin (Low Projection 1966)	C.A.L. 1969	C.A.L. Alt. 2, 1969	B-A Corridor 1969
SMSA				
1975	1520	1421	1492	1472
1980	1584	1487	1582	1540
1985	1660	1567	1685	1610
1990	1737	1652	1697	-
ERIE CO.				
1975	-	1171	1211	1097
1980	1243	1224	1266	-
1985	-	1289	1325	1201
1990	1335	1359	1396	-

TABLE B-3

POPULATION STUDIES - Figures in Thousands

	1970	1975	1980	1985	1990
BUFFALO S.M.S.A.					
U.S. Census Bureau, 1970	1349	-	-	-	-
Cornell Aeronautical Lab,1969	1366	1421	1487	1567	1652
Buffalo-Amherst Corridor,1969 (Consultec & Marcou, O'Leary Assoc., June '68)	1362	1472	1540	1610	-
Erie-Niagara Basin Study,1966 (Low Projection, developed by Div. Planning, 1967)	1456	1520	1584	1660	1737
Buffalo CBD Econ. Analysis Larry Smith & Co., 1965	1457	1520	1595	-	-
Division of Planning, 1967	1350	1430	1500	1560	1650
ERIE COUNTY					
U.S. Census Bureau, 1970	1114	-	-	-	-
Cornell Aeronautical Lab,1969	1125	1171	1224	1289	1359
Buffalo-Amherst Corridor, 1969 (Consultec & Marcou, O'Leary Assoc., June '68)	-	1097	-	1201	-
Erie-Niagara Basin Study, 1966 (Low Projection, developed by Div. Planning, 1967)	1174	-	1243	-	1335
Division of Planning, 1967	1130	1190	1230	1290	1330
Erie Co. Dept. Planning, 1966	1120	1187	1300	-	-
CITY OF BUFFALO					
U.S. Census Bureau, 1970	463	-	-	-	-
Cornell Aeronautical Lab, 1969	479	460	450	451	469
Buffalo-Amherst Corridor, 1969 (Consultec & Marcou, O'Leary Assoc., June '68)	-	463	-	458	-
Erie-Niagara Basin Study, 1966 (2000-2020, stable 480)	517	-	501	-	486
Division of Planning, 1967	474	460	470	485	496
Erie Co. Dept. Planning, 1966	459	444	439	-	-

Table C-6 presents past employment in nonagricultural establishments from 1959 to 1967. Table C-7 presents projected employment in major economic sectors from 1970 to 1990. From the material developed by the Cornell Aeronautical Laboratory study of 1969, Table C-1 presents the estimated labor force to 1990 for the SMSA, Erie County and the City of Buffalo. Table C-2 presents the projected employment by major economic sector for Erie County to 1990, while Table C-3 does the same for the City of Buffalo. Table C-4 presents the estimated manufacturing employment for the SMSA, Erie County and the City of Buffalo. Table C-5 presents the estimated employment by major economic sector in the City of Buffalo by number and by percent of the total.

Following the above material, Table C-8 presents employment projection by major industry, including SIC numbers for classifications. Finally, Table C-9 presents areas of relative weakness in the SMSA manufacturing base. Some of these industries are underrepresented because they do not fit well into the general labor condition, or, for other considerations, are not apt to develop fully here. These industries have location coefficients of .50 or less. This is based on a relative share of national employment found in a region. A location coefficient of less than 1.0 implies that the industry's product is being imported; over 1.0 implies that the industry's product is being exported. Some of the industries listed in Table C-9 may be considered as possible expansion in the areas industrial base.

TABLE C-1 - ESTIMATED LABOR FORCE TO 1990

In Thousands

	1970	1975	1980	1985	1990
S.M.S.A.	548.0	594.0	646.0	675.0	703.0
(Female)	(194.0)	(213.0)	(236.0)	(243.0)	(252.0)
Erie Co.	454.0	489.0	528.0	555.0	578.0
Buffalo	193.0	187.5	188.5	187.4	194.9

TABLE C-2 - ERIE COUNTY - Projected Employment by Major Economic Sector

In Thousands

	Mfg.	Trade	Services	Gov't.	Finance	Transp.	Other	Total
1970	140.5	84.7	64.3	60.6	15.9	28.1	63.3	457.4
1975	142.5	96.5	76.6	70.9	12.5	28.6	65.2	497.7
1980	145.3	108.2	89.6	89.6	19.3	30.0	66.4	539.7
1985	148.3	115.9	100.4	85.2	20.0	31.3	67.2	568.2
1990	150.0	123.1	110.0	89.6	20.8	32.8	67.3	593.7

TABLE C-3 - CITY OF BUFFALO - Projected Employment by Major Economic Sector

In Thousands

	Mfg.	Trade	Services	Gov't.	Finance	Transp.	Other	Total
1970	50.0	38.4	36.2	33.4	10.2	17.7	37.3	223.3
1975	48.0	41.3	40.5	36.5	10.6	17.3	36.0	230.1
1980	46.0	43.0	45.3	38.9	11.1	17.3	34.9	236.5
1985	45.0	44.4	49.3	40.0	11.3	17.6	33.9	241.4
1990	45.0	46.7	53.3	42.2	11.6	18.2	33.4	250.4

TABLE C-4 - ESTIMATED MANUFACTURING EMPLOYMENT

In Thousands

	1970	1975	1980	1985	1990
SMSA	181.9	184.7	188.5	191.4	193.2
Erie Co.	140.5	142.5	145.3	148.3	150.0
Buffalo	50.0	48.0	46.0	45.0	45.0

TABLE C-5 - ESTIMATED EMPLOYMENT, CITY OF BUFFALO - 1970 and 1990

In Thousands and by Percent

	1970		1990	
	Number	Percent	Number	Percent
Mfg.	50.0	22.4	45.0	16.6
Trade	38.4	17.2	46.7	17.3
Services	36.2	16.2	53.3	19.7
Gov't.	33.4	15.0	42.2	15.6
Finance	10.2	4.6	11.6	4.3
Transp.	17.7	7.9	18.2	6.7
Other	37.3	16.7	53.4	19.8
Total	223.2	100.0%	270.4	100.0%

TABLE C-6 - EMPLOYEES IN NONAGRICULTURAL ESTABLISHMENTS, BUFFALO SMSA, 1959-1967

Figures in Thousands

SIC Code	Industry	1967	1966	1965	1964	1963	1962	1961	1960	1959
	Total nonagricultural*	484.4	474.4	455.5	437.3	428.4	426.7	423.0	441.7	435.8
	Manufacturing*	178.2	180.6	175.1	167.6	164.9	165.8	164.4	176.5	173.9
	Durable goods*	121.3	123.1	118.8	111.6	109.4	110.2	108.4	117.3	112.2
24	Lumber & wood products, exc. furniture	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.9	1.1
25	Furniture and fixtures	2.0	2.0	1.8	1.9	2.1	2.0	1.9	2.1	2.1
32	Abrasive, cement & plaster products*	8.2	8.1	8.0	7.9	8.1	8.6	8.4	8.9	9.0
33	Primary metal industries	32.3	33.6	32.9	30.7	29.3	29.7	29.1	33.6	30.6
34	Fabricated metal products	12.8	14.1	14.0	13.2	12.4	12.9	12.4	13.6	13.9
35	Machinery, except electrical*	15.2	15.0	14.1	13.9	13.4	13.5	13.6	14.2	13.3
36	Electrical machinery, equipment & supplies*	14.7	15.0	14.2	13.0	12.9	13.0	13.3	13.8	13.4
37	Transportation equipment*	31.9	31.2	29.5	26.6	26.8	26.4	24.6	26.5	26.0
38	Instruments and related products	3.5	3.4	3.1	2.8	2.8	2.7	2.6	2.7	2.4
	Nondurable goods*	56.9	57.4	56.3	56.0	55.5	55.6	56.0	59.1	61.7
20	Food and kindred products*	14.0	14.2	14.7	15.0	15.1	15.1	15.4	15.9	16.5
22	Textile mill products	1.3	1.3	1.2	1.3	1.3	1.4	1.4	1.5	1.6
23	Apparel and related products	2.4	2.3	2.4	2.3	2.2	2.3	2.6	2.7	2.8
26	Paper and allied products*	6.6	7.0	6.7	6.7	6.7	7.0	7.0	7.4	7.4
27	Printing and publishing*	8.6	8.4	8.1	7.9	7.4	7.5	7.5	7.7	7.7
28	Chemicals and allied products*	15.9	16.1	15.5	15.6	15.9	15.6	15.4	16.7	18.1
29	Petroleum refining and related industries	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1
30	Rubber & misc. plastics prods.*	4.7	4.7	4.3	4.0	3.9	3.8	3.6	4.0	4.2
31	Leather and leather products	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.4	0.5
39	Miscellaneous manufacturing inds.	2.5	2.4	2.2	2.0	1.8	1.8	1.8	1.8	2.0
	Nonmanufacturing	306.3	293.8	280.4	269.7	263.5	260.9	258.6	265.2	261.9
	Contract construction*	20.3	20.6	19.5	18.2	16.8	17.2	20.0	25.7	25.6
15	General building contractors	5.3	5.7	5.2	4.3	4.3	•	•	•	•
16	Heavy construction	4.0	3.9	3.7	4.0	3.3	•	•	•	•
17	Special trade contractors	11.0	11.0	10.5	9.9	9.2	•	•	•	•
	Transportation and public utilities*	32.5	32.0	31.8	31.1	31.3	32.0	31.7	33.4	34.1
40	Railroad transportation	8.1	8.4	8.7	8.8	8.9	•	•	•	•
41	Local & interurban passenger transit	3.0	2.9	2.8	2.8	2.9	•	•	•	•
42	Motor freight transp. & storage	8.3	8.0	7.7	7.3	7.3	•	•	•	•
44	Water transportation	1.3	1.2	1.2	1.2	1.2	•	•	•	•
47	Transportation services	0.5	0.5	0.4	0.4	0.4	•	•	•	•
48,9	Communication and public utilities	10.2	10.0	9.9	9.8	9.8	•	•	•	•
	Wholesale and retail trade*	95.8	92.2	88.7	86.2	84.5	83.3	82.2	84.5	85.5
50	Wholesale trade	22.6	21.6	20.8	20.2	20.0	•	•	•	•
52-59	Retail trade	73.2	70.6	67.9	66.0	64.5	•	•	•	•
52	Bldg. materials & hardware	2.9	2.9	2.8	2.8	2.8	•	•	•	•
53	General merchandise stores	16.0	15.0	14.5	14.1	14.0	•	•	•	•
54	Food stores	13.4	12.7	11.7	11.5	11.2	•	•	•	•
55	Auto dealers & service stations	8.5	8.6	8.6	8.5	8.3	•	•	•	•
56	Apparel & accessories stores	5.0	4.9	4.8	4.8	4.7	•	•	•	•
57	Furniture & appliance stores	2.9	2.8	2.6	2.5	2.4	•	•	•	•
58	Eating and drinking places	17.6	16.9	16.4	15.5	14.8	•	•	•	•
59	Miscellaneous retail stores	6.9	6.7	6.6	6.3	6.2	•	•	•	•
	Finance, insurance and real estate*	17.6	17.0	16.4	16.2	16.2	16.2	16.0	15.8	15.6
60	Banking	6.1	6.0	5.8	5.7	5.6	•	•	•	•
61	Credit agencies other than banks	1.0	1.0	1.0	1.0	0.9	•	•	•	•
62	Security dealers & exchanges	0.6	0.6	0.5	0.6	0.6	•	•	•	•
63	Insurance carriers	5.1	4.7	4.6	4.6	4.8	•	•	•	•
64	Insurance agents, brokers & services	1.8	1.8	1.7	1.7	1.7	•	•	•	•
65	Real estate	2.6	2.5	2.3	2.2	2.2	•	•	•	•
66	Combinations of real estate, insurance, loans, law offices	0.3	0.3	0.4	0.3	0.4	•	•	•	•
10-14,70-86,89 07-09,99	Services and miscellaneous*	68.2	64.8	61.0	57.6	56.0	56.8	55.8	54.9	53.0
70	Hotels and lodging places	3.6	3.7	3.4	3.2	3.2	•	•	•	•
72	Personal services	5.9	5.8	5.5	5.4	5.4	•	•	•	•
73	Miscellaneous business services	9.6	8.7	7.9	6.8	6.5	•	•	•	•
75	Automobile repair, automobile services and garages	2.3	2.1	2.2	2.0	1.8	•	•	•	•

* Monthly estimate published.
• Not available.

TABLE C-6 - Continued

SIC Code	Industry	1967	1966	1965	1964	1963	1962	1961	1960	1959
	Services and miscellaneous - continued									
76	Miscellaneous repair services	1.3	1.2	1.1	0.9	0.8	•	•	•	•
78	Motion pictures	0.8	0.7	0.8	0.7	0.7	•	•	•	•
79	Amusement & recreation, except motion pictures	3.5	3.3	3.3	3.4	3.5	•	•	•	•
80	Medical and other health services	18.8	17.7	16.8	15.9	15.7	•	•	•	•
81	Legal services	1.7	1.6	1.6	1.5	1.5	•	•	•	•
82	Education services	5.8	5.7	5.6	5.5	5.3	•	•	•	•
86	Nonprofit membership organizations	10.4	9.9	9.2	8.6	8.1	•	•	•	•
89	Miscellaneous services	3.2	2.9	2.6	2.6	2.5	•	•	•	•
07-09	Forestry and fisheries	0.8	0.8	0.7	0.6	0.6	•	•	•	•
	Government *	71.9	67.2	63.0	60.4	58.8	55.5	52.9	50.9	48.1
91	Federal	10.2	9.8	9.3	9.0	8.9	•	•	•	•
92,93	State and local	61.7	57.3	53.7	51.3	49.8	•	•	•	•
92	State government	15.0	13.3	12.1	10.7	10.1	•	•	•	•
	Education	6.3	5.3	4.5	3.8	•	•	•	•	•
	Other State	8.7	8.1	7.6	6.9	•	•	•	•	•
93	Local government	46.6	44.0	41.6	40.6	39.7	•	•	•	•
	Education	24.0	22.4	20.4	19.8	18.9	•	•	•	•
	Other local	22.6	21.6	21.2	20.8	20.8	•	•	•	•

* Monthly estimate published.
• Not available.

TABLE C-7 - EMPLOYMENT IN MAJOR ECONOMIC SECTORS, BUFFALO SMSA, 1970-1990

Figures in Thousands

	1970	1975	1980	1985	1990
Total Jobs	548.0	593.5	642.8	674.5	703.0
Erie County	457.4	497.7	539.7	568.2	593.7
Niagara County	90.6	95.8	103.1	106.3	109.3
Self-employed, Agriculture & Domestic Workers	55.0	53.0	51.0	49.0	47.0
Erie County	44.9	43.2	41.6	40.0	38.4
Niagara County	10.1	9.8	9.4	9.0	8.6
Nonfarm Wage & Salary Worker	493.0	540.5	591.8	625.5	656.0
Erie County	412.5	454.5	498.1	528.2	555.3
Niagara County	80.5	86.0	93.7	97.3	100.7
Manufacturing	182.0	185.3	188.9	192.2	194.6
Erie County	140.5	142.5	145.3	148.3	150.0
Niagara County	41.5	42.8	43.6	43.9	44.6
Non-manufacturing	311.1	355.2	402.9	433.3	461.4
Erie County	272.3	311.7	352.4	379.8	404.8
Niagara County	38.8	43.5	50.5	53.5	56.6
Contract Construction	22.2	25.8	29.3	31.9	33.7
Erie County	18.7	21.9	24.7	26.8	28.4
Niagara County	3.5	3.9	4.6	5.1	5.3
Transp. & Public Utilities	32.0	32.6	34.2	35.6	37.3
Erie County	28.1	28.6	30.0	31.3	32.8
Niagara County	3.9	4.0	4.2	4.3	4.5
Fin., Insurance, Real Estate	17.6	19.4	21.2	22.0	22.8
Erie County	15.9	17.5	19.3	20.0	20.8
Niagara County	1.7	1.9	1.9	2.0	2.0
Wholesale & Retail Trade	96.7	109.5	123.4	132.3	140.4
Erie County	84.7	96.5	108.2	115.9	123.1
Niagara County	12.0	13.0	15.2	16.4	17.3
Services & Misc.	70.0	83.0	98.0	109.4	120.0
Erie County	64.3	76.2	89.6	100.4	110.1
Niagara County	5.7	6.8	8.4	9.0	9.9
Government	72.5	84.8	96.4	102.0	107.1
Erie County	60.6	70.9	80.6	85.2	89.6
Niagara County	11.9	13.9	15.8	16.8	17.5

TABLE 8 - EMPLOYMENT PROJECTIONS IN MANUFACTURING BY MAJOR INDUSTRIES, 1970-1990

SIC	INDUSTRY	1970	1975	1980	1985	1990
24	Lumber & Wood Products	800	800	800	800	800
25	Furniture & Fixtures	1,870	1,790	1,710	1,620	1,540
32	Stone, Clay, Glass Products	8,260	8,700	8,550	8,400	8,450
33	Primary Metals	33,100	32,680	32,320	31,950	29,500
34	Fabricated Metals	14,590	15,210	15,880	16,570	17,310
35	Machinery, exc. Electrical	15,500	16,200	16,950	17,760	18,610
36	Electrical Machinery	15,980	17,190	18,500	19,930	21,460
37	Transportation Equipment	31,780	32,750	33,760	34,810	35,890
38	Instruments	3,420	3,630	3,860	4,100	4,350
	Total Durables	125,300	128,950	132,530	135,940	137,910
20	Food & Kindred Products	13,340	12,460	11,690	11,010	10,410
22	Textiles	1,180	1,050	930	820	730
23	Apparel	2,040	1,760	1,520	1,310	1,130
26	Paper & Paper Products	7,340	7,620	7,920	8,250	8,600
27	Printing & Publishing	8,830	9,400	10,030	10,780	11,620
28	Chemicals & Allied Products	15,730	15,260	14,840	14,470	14,150
29	Petroleum & Related Products	750	710	670	630	590
30	Rubber & Misc. Plastics Products	5,000	5,520	5,900	6,300	6,640
39	Misc. Manufacturing	2,460	2,540	2,636	2,710	2,800
	Total Nondurables	56,670	56,320	56,130	56,280	56,670
	Total Manufacturing	181,970	185,270	188,860	192,220	194,580

SOURCE: Cornell Aeronautical Laboratory Study, 1969

TABLE C-9 - INDUSTRIES WITH EMPLOYMENT UNDERREPRESENTATION (1966)

SIC	INDUSTRY	LOCATION COEFFICIENT
2421	Sawmills and Planning Mills	.11
2432	Veneer and Plywood	-
2441	Wooden Boxes & Crates	.48
2511	Wooden Household Furniture	.27
2512	Upholstered Furniture	.19
2515	Mattresses and Bedsprings	.48
321	Flat Glass	--
3221	Glass Containers	--
3251	Brick & Clay Tile	.33
341	Metal Cans	-
3429	Hardware, n.e.c.	.10
3431,2	Sanitary Ware, Plumbers Brass Goods	-
3444	Sheet Metal Work	.38
3449	Architectural & Misc. Metal Work	.47
3452	Bolts, Nuts, Rivets, Washers	-
348	Misc. Fabricated Wire Products	.42
3494,8	Valves, Pipe & Pipe Fittings	.19
3511	Engines & Turbines	-
3519	Internal Combustion Engines, n.e.c.	-
352	Farm Machinery	.04
3531,2	Constr. & Mining Machinery	.03
3541	Metal Cutting Machine Tools	.14
3545	Machine Tool Accessories	.32
3555	Printing Trades Machinery	.20
3562	Ball & Roller Bearings	-
3566	Computing Mach. & Cash Registers	.30
3576	Scales and Balances	-
3581	Automatic Merchandising, Mach.	-
3582	Commercial Laundry Mach.	-
3584	Vacuum Cleaners, Industrial	-
3586	Measuring & Dispensing Pumps	-
3591	Mach. Shops, Jobbing and Repairing	-
3611	Electric Measuring Instruments	.07
3612	Transformers	.23
3613	Switchboard & Switchboard Apparatus	.02
3632	Household Refrigerators & Freezers	-
3643	Current Carrying Wire Devices	-
3633	Household Laundry Equipment	-
3641	Electric Lamps	-
3651	Radio & TV Equipment (Receiving)	-
3661	Tel. & Telegraph Apparatus	-
3662	Radio & TV Communications Equip.	.44

TABLE C-9 - Continued

SIC	INDUSTRY	LOCATION COEFFICIENT
3671-3	Electron Tubes	-
3674	Electronic Components	.31
3715	Truck Trailers	.27
3721	Aircraft	-
3811	Engineering & Scientific Instruments	.06
3822	Automatic Temperature Controls	.44
386	Photographic Equip. & Supplies	.06
387	Watches & Clocks	-
3949	Sporting Goods, n.e.c.	.10
2015	Poultry Dressing Plants	.19
2086	Bottled & Canned Soft Drinks	.38
2654	Sanitary Food Containers	.03
272	Periodicals	.07
2823-4	Synthetic Fibers	-
283	Drugs	.39
2841	Soap & Detergents	.12
2844	Toilet Preparations	-
287	Agricultural Chemicals	.24
31	Leather Products	.10

SOURCE: Cornell Aeronautical Laboratory Study, 1969

By 1900 the waterborne commerce of Buffalo was exceeded in this nation only by Chicago and New York City. Only about a half dozen ports in the world exceeded the volume handled in Buffalo Harbor.

In 1914 the Panama Canal opened. This facility changed continental and international shipping patterns. The Canadian government developed a route westward from their grain producing areas to Vancouver where grain could be shipped by water to the Atlantic Coast by using the Panama Canal as well as to Pacific destinations. Besides handling the grain of the Midwestern United States, Buffalo had also served as the distribution center for Canadian grain shipped to the East Coast.

Another impact of the canal on the Port of Buffalo came from the Panama Canal Act of 1912. This forced railroads to divest themselves of their water carriers in an attempt to increase competition. As a result in Buffalo, a sharp decline in package freight took place until that source of commerce disappeared. Also attributed to the 1912 act was the decline of anthracite coal shipments in Buffalo which fell from 4,255,000 tons in 1919 to 671,000 tons in 1931. Shippers did not favor water transportation because of lower railroad rates. This decrease later became insignificant as the increased use of oil and gas for heating purposes found the use of coal diminishing greatly.

Flour milling began its major growth after the turn of the century when large milling companies began to locate in Buffalo due to the withdrawal by railroads of free flour storage in Buffalo. In 1900 the railroads granted free milling in-transit privileges to Buffalo and in 1920 similar privileges were withdrawn from Minneapolis for a period of time during which new facilities were built in Buffalo. In that year 40% of the grain shipped to Buffalo was milled into flour. By 1970 virtually all the grain shipped to Buffalo was for milling purposes.

The railroads owned fleets of lake freighters and a number of grain elevators in Buffalo until the early 1920's when the Interstate Commerce Commission forced the railroads to give up their lake freighters. Also during the 1920's feed for livestock became a substantial business in Buffalo. As the 1920's ended and the 1930's began, the national economic depression occurred. The depression was to strike Buffalo and its port severely.

In 1925 the Port of Buffalo ranked fifth on a national level in water-borne tonnage. The vast volume of commerce of the Great Lakes exceeded that of the Atlantic, Gulf of Mexico and Pacific coastal ports combined. In that year 113 million tons were handled on the

lakes while 92 million tons were handled by all coastal ports. At this time over one-third of the wages paid in Buffalo came from waterfront and railroad activities.

The Mississippi River had long been used for shipping to a degree, but in August 1927, it was officially opened for transportation from Minneapolis to New Orleans under the sponsorship of the federal government. This facility, which offered a 20% reduction under rail rates, made possible the shipment of grain and flour by an all-water route with foreign transhipment made at New Orleans. Representatives of Baltimore and Buffalo were upset by the use of this government barge line which at first operated under a deficit. Later the route was to divert major shipments from Buffalo.

During the nineteen-twenties concern began to grow in Buffalo over the increasing grain export business in Canada, including that from Montreal. The re-opening of the Welland Canal was originally scheduled for 1930. The enlarged canal was seen as an extension of the Great Lakes shipping route which had ended at Buffalo. Oswego New York, also hoped to attract grain past Buffalo by use of the Welland Canal. The further east lake freighters could deliver their cargoes, the less expensive would be the cost of shipping. Talk of a seaway in the St. Lawrence River also caused uneasiness in Buffalo shipping circles.

Lake traffic came to depend largely on the size of the grain harvest and the volume of steel production. The nation's steel production was only twenty per cent of capacity in 1932 and traffic at Buffalo fell to 5,957,000 tons. The following year, there was a seventy per cent increase in steel production and the port's traffic increased fifty-five per cent.

The original Welland Canal was completed in 1833. A series of improvements occurred until 1913 when it was closed for major reconstruction, opening in 1932 as the Welland Ship Canal. It later became part of the St. Lawrence Seaway.

In 1935 improvements were begun on the New York State Barge Canal from the Hudson River to Oswego via the Oswego Canal. A water depth of fourteen feet was provided along this route. Westward to Buffalo, the Barge Canal was twelve feet deep with points dropping to a depth of nine feet. Work on the improvement stopped in 1942.

The Oswego improvement began again in 1946, providing an overhead clearance of twenty feet in comparison with the fifteen and a half foot clearance for the rest of the canal. Grain could be shipped through the Welland Canal to Oswego on Lake Ontario where grain elevators, built with state assistance, could store grain until it was transferred to canal vessels and shipped eastward. Larger canal barges could use the Oswego to the Hudson River connection.

Changes in fuel consumption brought about changes in transportation. Pipelines had long been in use but between 1930 and 1950 a great growth occurred. Residential consumption of coal dropped from 256 million tons in 1929 to 77 million in 1951 on a national level. In the Buffalo area coal was still used to heat most homes as World War II began. Fuel oils and natural gas for heating purposes had begun to grow in use but expansion was curtailed by defense needs.

The Erie Canal had lost its importance as a means of transportation. As World War II approached it was virtually abandoned within the city's boundaries, except for the portion which is now part of the Black Rock Canal. The war itself served as a stimulant for the Port of Buffalo. The Lend-Lease Act of 1941 provided the area with industrial orders worth a billion dollars. In 1942, after the United States had declared war, Buffalo-area industry produced five billion dollars worth of materials. This surpassed by four times the previous record established in 1929. Industry in the area and the Port of Buffalo operated at full capacity. All lake vessels were pressed into service as vast quantities of limestone, iron ore, coal, oil and grain were shipped to the port. On the lakes small, private boats served as armed patrols.

Grain activity reached high levels. In 1945 the grain handled reached 257 million bushels. The five-year annual average between 1933 and 1937 was 98 million bushels. Between 1953 and 1957 the average was to fall to 121 million bushels. This was to fall further to an average of 76 million between 1963 and 1967.

The Port of Buffalo's ranking in terms of total tonnage handled during the mid-twenties had been second on the Great Lakes and fifth of all United States' ports. In 1930 this had slipped to third of lakes' ports and seventh of all ports. By 1937 the Port of Buffalo remained third of the lakes' ports but fell to ninth of all ports. Despite the high degree of activity in the Port of Buffalo during World War II, the ranking of the port by 1946 had further declined to fifth of the ports of the Great Lakes and twelfth of all ports. Obscured by the local activity in Buffalo was the relative increasing importance of other ports. This was to continue and to be underscored by the opening of the St. Lawrence Seaway.

The activity associated with the war effort found local hopes for a resurgence of the port rising. While many needs of that war were met by Buffalo and its port, shifts in national requirements and changes in transportation methods and routes occurred.

Shortly after World War II the Inland Waterways (the Mississippi, Ohio, Illinois, and Missouri Rivers) attracted significant amounts of grain away from the Buffalo area and toward the Gulf of Mexico. These waterways handled 57 million bushels of grain in 1950. This grew to 330 million bushels by 1960.

Movement of the poultry industry southwesterly in the nation left only the eastern market for Buffalo's feed business. Small plants were built near the new local markets. Half the 1950 grain feed mills in Buffalo were closed by 1960. Buffalo will continue as a major center in this field due to its location and the large tonnages of flour by-products available. Losses in this field were damaging but not disastrous.

Much harder hit was the grain merchandising business. A noticeable shift began with the increased use of the Inland Waterways after World War II. Atlantic Coast business remained until the opening of the St. Lawrence Seaway. Then grain merchandising in Buffalo was virtually eliminated. The need for the transfer of grain at Buffalo was removed by ocean-going ships. Changes in transportation routes, along with changes in federal government storage policies, depressed the grain storage industry in Buffalo.

The milling industry had reached its present proportions locally by 1948. Flour milling in Buffalo is apt to be least affected by changes in transportation routes. In fact, sizable investments have been made in the Buffalo area recently for the production of pasta products, cereals and convenience foods. While milling production is still high, its market has changed. In 1930, 50% of the flour production was exported while presently only 5% is for export.

No general plan for harbor development existed in Buffalo after the Erie Canal opened in 1825. Facilities were built in a haphazard fashion. In 1929, 1940 and 1941 state legislation had been passed in connection with the formation of a port agency, but these acts did not bear fruit. In 1950 a commission was authorized to study the development of port facilities. It submitted a report in the following year. Local municipalities and the state legislature failed to approve the port organization suggested.

While representatives of the city always sought harbor improvements, preparation in Buffalo Harbor for deeper draft vessels using the St. Lawrence Seaway was not altogether a joyful event. The ocean route had been traditionally opposed by the City of Buffalo. This opposition proved warranted as Buffalo lost its strategic position as a transfer point.

The St. Lawrence Seaway was to provide a 27 foot deep navigational channel built and operated jointly by Canada and the United States. Reportedly, the American passage hinged on the related power development added to the measure. Statutes of both nations called for full costs to be repaid from tolls within fifty years.

The planning of the United States section of the Seaway began in 1954 by the Buffalo District Office of the U. S. Army Corps of Engineers. During 1958 the Seaway opened but its first full season was in 1959. Despite references to the Seaway as America's fourth seacoast, its performance in the last ten years has been disappointing and it is in debt. The Seaway did not make significant inroads on competing modes, but it did manage to divert the export grain commerce from Buffalo.

As plans developed for the improvement of the harbor, the federal government constructed a new north entrance. In 1963 the West Breakwater was built to protect the new entrance which was cut through the Old Breakwater. This cut and the rehabilitation of the breakwater took place during 1964 and 1965. A triangular cut was made from the Coast Guard property as part of this project. The new North Entrance Channel had a depth of 25 feet in soft material and 26 feet in hard material. The northern end of the Outer Harbor had a project depth of 23 feet. Buffalo River and its entrance channel had a depth of 22 feet in soft material and 23 feet in hard material.

The South Entrance Channel had a 30 and 29 foot project depth with a depth of 28 feet at the southerly end of the Outer Harbor. Between the two ends, a depth of 27 feet was provided. The South Entrance was to handle the deeper draft ships using the St. Lawrence Seaway.

While the Buffalo River will continue in its industrial use, there is no thought of making it navigable for the deep draft vessels using the St. Lawrence Seaway. The South Channel Entrance to the Outer Harbor has been developed to handle those ships.

In 1967 the Niagara Frontier Transportation Authority was established and incorporated with the Port Authority. The Port Authority has assembled most of the land adjacent to the Outer Harbor under its ownership. Currently, much of this land has been filled to the harbor line and facilities have been provided to attract new commerce to Buffalo Harbor.

Over half of the total tonnage handled by the Port of Buffalo in 1967 was iron ore (of which approximately 87% was domestic ore). Of the total, the three major bulk commodities, iron ore, limestone and grain, comprised four-fifths of the port's total tonnage.

Thirty years before iron ore had made up about 30% of the port's total tonnage (of which 98% was domestic ore). The three major bulk commodities constituted approximately half of the total tonnage. The total tonnage of 1937, which was an active year, was twenty-one million tons compared to sixteen and a half million tons in 1967. Limestone comprised 9% of the total and grain 13% in 1937. By 1967 limestone rose to 14% and grain fell to 11% of the total tonnage. The trend in the 1950's between the above years had found the three major bulk commodities comprising two-thirds of the total tonnage with iron ore then approaching the 50% mark.

The general cargo and ocean shipping role of the Port of Buffalo in the future is pivotal. Based on historic precedent it is probable that ships will get larger and stop at fewer ports on the Great Lakes. The ports of the lakes generating the most cargo will survive. Buffalo, as a major regional distribution point, is hampered by other ports in the same region. The Port Authority seeks to secure a significant position for the port as a bulk terminal to establish a steady trade and to provide a base from which to build. Buffalo does have an advantage in being able to handle bulk and specialty cargo.

General cargoes are more valuable per ton than bulk cargoes for any port. There is a lack of such cargoes on the Great Lakes and Buffalo suffers from this consideration. The future of general cargo shipping might appear bleak. Trends toward cargo containerization, the continuing trend of servicing of fewer ports, and Buffalo's relative closeness to the giant Port of New York all would seem to underscore bleakness. The local Port Authority is not pessimistic however. Its plan is to hold and build upon key commodities. Import steel and

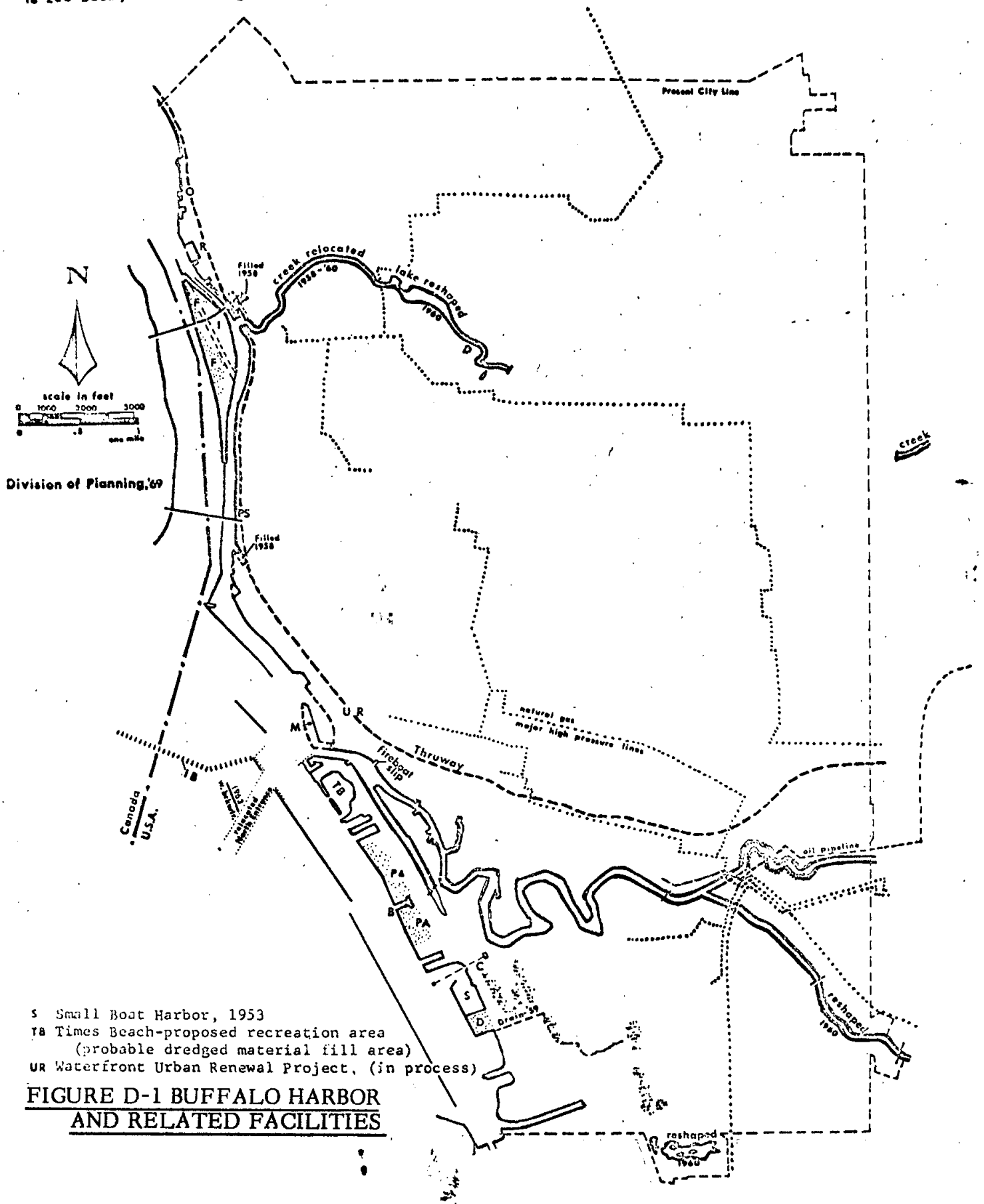
export flour increased in 1969. The Port Authority has sought and attracted increases in bulk cargoes (clay, potash, salt, sand, etc.). Flour and steel staples together with other bulk cargo growth could attract additional cargoes.

Domestic grain reaching the Port of Buffalo between 1963 and 1967 fell by 58% from the 1943 to 1947 level. This drop was only 22% from 1933 to 1937 level however. By 1960 the Port of Buffalo ranked seventh of the Great Lakes ports in terms of tonnage handled and twenty-first of all United States' ports. In 1967 Buffalo held its Great Lakes' ranking but fell to twenty-sixth of both lakes and coastal ports. Despite the loss in Great Lakes shipping that source in 1968 supplied 88% of the tonnage handled by the Port Authority.

Assuming that pollution problems will be effectively combatted, the Great Lakes will still offer the world's largest supply of fresh water. By the next century this resource will become of increasing importance. Buffalo with its strategic location should play an important role.

Future prospects for the port generally may include a longer shipping season and a re-growth in harbor commerce. Land projections and islands may be built of waste and dredged material behind bulkheads which are designed to control the water flow of Lake Erie. A new canal, using the Black Rock Canal route in part to connect Lakes Erie and Ontario remains a possibility and is still under study. Since 1874 there have been twenty such studies. If the present study finds such a canal to be warranted instead of simply improving the Welland Canal, additional shipping would be thrust adjacent to Buffalo Harbor, adding an impetus to the growth of commerce in the area.

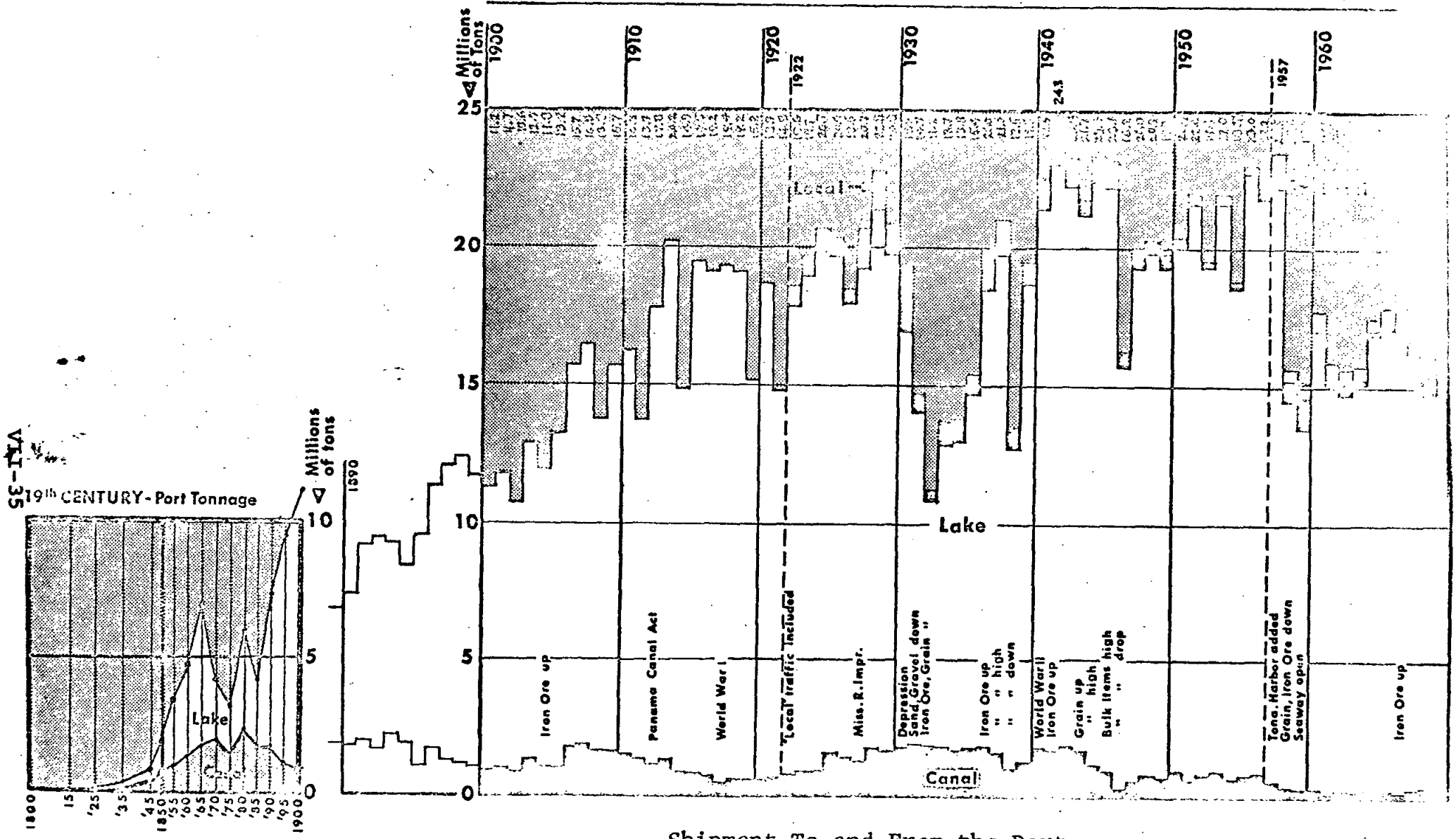
B Bell Slip, 1965
C Cooling Water Project, 1966
D Disposal Area (Dredged Material), U.S. Corps of Engineers 1968-1970
F Fill Areas, Squaw Island (In process)
IB Ice Boom, in non-navigation season, 1964 on.
I Incinerator Plant, 1952
PS Mass. Pumping Station, 1958 (replacement)
PA Niagara Frontier Port Authority Fill Areas, 1965
O Ontario Small Boat Ramp, 1960
M Proposed City of Buffalo Marina
R Rich Marina, 1959



S Small Boat Harbor, 1953
TB Times Beach-proposed recreation area (probable dredged material fill area)
UR Waterfront Urban Renewal Project, (in process)

FIGURE D-1 BUFFALO HARBOR AND RELATED FACILITIES

FIG. D 2 – WATERBORNE COMMERCE, PORT OF BUFFALO – In millions of 2000 pound tons



Shipment To and From the Port

Lake - Shipments using Lake Erie, including foreign and domestic commerce.

Canal - Shipments using the Black Rock Channel & New York State Barge Canal (internal waterways). After 1957 shipments to Tonawanda Harbor became "local."

Local - Shipments within the Port of Buffalo, including "intraport" designations.

BUFFALO DISTRICT - U.S. Corps of Engineers' districts are divided by watersheds. The Buffalo District extends eastward from the Sandusky River, along the shore of Lake Erie (including the Niagara River and Lake Ontario's shore) to the International Boundary on the St. Lawrence River.

ERIE CANAL - the 363 mile long artificial waterway completed by New York State in 1825 and operated until 1903. In that year the canal was converted into the 338 mile New York State Barge Canal.

ERIE-NIAGARA BASIN - in the United States, consists primarily of the area between Tonawanda and Cattauragus Creeks. The hydrological basin also includes a narrow strip of land along the Niagara River, north of Tonawanda Creek, and a strip south of Cattauragus Creek.

LAKE ERIE - the shallowest and probably the oldest of the Great Lakes. It is 241 miles long and has a maximum width of 57 miles. The lake has a surface area of 9,930 square miles.

NIAGARA RIVER - a strait, 34 miles long, carrying the discharge from Lake Erie to Lake Ontario. The water falls 326 feet within its length. The maximum drop at Niagara Falls is 167 feet.

PORT OF BUFFALO - Includes the facilities listed below:

•BUFFALO HARBOR

Inner Harbor - the dredged channel following the Buffalo River, including the City Ship Canal

Outer Harbor - the part of Lake Erie enclosed by breakwaters south of Buffalo River and north of Lackawanna, including the Union Ship and Lackawanna Canals.

•BLACK ROCK CHANNEL - the improved draft channel in the Niagara River between Buffalo and Tonawanda, 13.5 miles long. The upper 4.25 miles is called the Black Rock Canal. The Erie Basin, off the southern end of the canal, is to be converted into a small boat harbor.

•BLACK ROCK HARBOR - the harbor which developed from the natural Black Rock formation which was supplemented by a pier extending northward from Bird Island. By 1825 the surface area of the harbor was about 136 acres.

Upper Harbor - the area south of Scajaquada Creek, no longer in use.

Lower Harbor - north of Scajaquada Creek, used presently to a small degree.

•TONAWANDA HARBOR - the shipping facilities located at the northerly end of the improved draft channel of the Niagara River and at the western terminus of the New York State Barge Canal.

GRAPH EXPLANATION: (P.VII-34)

Statistics on the port were kept differently through the years. Categories used for the graph are indicated on page 34. Local shipments were presented after 1921 and from 1957 on, Tonawanda Harbor was included as part of the Port of Buffalo. After 1939 figures on sand and gravel formerly listed under local traffic were listed under lake traffic. Also after 1939 commerce from the Illinois Waterway was changed from internal to lake classifications. For the twentieth century graph, the U.S. Corps of Engineers, (or earlier the U.S. Board of Engineers), was the source of figures used--except for the years prior to 1906 when figures for canal traffic were obtained from reports of the N.Y.S. Superintendent of Public Works. The nineteenth century graph was prepared from several sources and is a less accurate record. The last decade is based on the U.S. Board of Engineers' figures. The Buffalo Board of Trade, Buffalo Creek Customs Record and random figures as presented in texts were used when available along with the above state canal source. Lake figures were based on cargo tonnage and are not a uniform comparison with the later figures. However on the graph form a reasonable presentation of the growth of the port is depicted. Notes on the large graph indicate some reasons for fluctuations of port activity.

TABLE VIII - RANKING OF PORTS: (below)

The area considered to make up a port changed as harbors merged through the years. The rankings are based on the area of a port as it was considered to be in the years on the table. The ranking is a quantitative measure of commerce handled at various ports, but it also may be seen as a contemporary judgement of the significance of ports.

Table VIII - U.S. RANK OF THE PORT OF BUFFALO
In Terms of Tons Handled

	Of Great Lakes Ports	Of All U.S. Ports		Of Great Lakes Ports	Of All U.S. Ports
1900	2	3	1935	3	11
1905	2	3	1940	3	9
1910	2	3	1945	4	8
1915	2	3	1950	5	13
1920	2	5	1955	5	12
1925	2	5	1960	7	21
1930	3	7	1965	7	23
			1968	7	29

SOURCE: U.S. Corps of Engineers

Table 01 - WHEAT FLOUR PRODUCTION, in Hundred Weight - 3 Largest U.S. Centers

Yearly Average For 5-Yr. Period	Buffalo	Kansas City	Minneapolis
1953-57	26,593,154	13,739,157	12,108,065
1963-67	26,637,784	14,307,242	8,630,752

Table 02 - LAKE RECEIPTS OF GRAIN AT BUFFALO, in Bushels

	Wheat	Other Grain*	Total
1933-37	78,869,224	18,748,902	97,618,126
1943-47	130,498,483	51,878,816	182,377,299
1953-57	68,759,871	52,112,606	120,872,477
1963-67	53,321,270	22,235,425	75,556,695

* Corn, Oats, Barley, Rye, Flaxseed, Soybeans, Malt

Table 03 - RAIL RECEIPTS OF GRAIN AT BUFFALO, in Bushels

	Wheat	Other Grain*	Total
1953-57	32,883,020	45,649,600	78,532,620
1963-67	19,653,220	10,819,600	30,472,820

* Corn, Oats, Barley, Rye, Flaxseed, Soybeans, Malt

Table 04 - LAKE GRAIN TO BUFFALO LOADED OUT BY RAILROAD, in Bushels

	Wheat	Other Grain*	Total
1953-57	20,244,773	12,356,896	32,601,669
1963-67	5,109,254	6,936 (Rye only)	5,116,190

* Corn, Oats, Barley, Rye, Flaxseed

SOURCE: The Corn Exchange, Buffalo, N.Y.

Table 05 - SHIPMENT OF GRAIN FROM BUFFALO VIA WELLAND CANAL AND N.Y.S. BARGE CANAL AT OSWEGO, N.Y., in tons

Yearly Average For 5-Yr. Period	Wheat	Other Grain*	Total
1953-57	136,000 (All in 1956)	398,933 (1955,56,57 only) Corn, Oats, Barley, Flaxseed	534,833
1963-67	0	70,315 (All in 1964) Corn Only	70,315

SOURCE: N.Y.S. Dept. of Transportation

TABLE D 6 - BUFFALO RECEIPTS OF IRON ORE AND LIMESTONE
In Millions of 2,000 lb. Tons, by Five-Year Intervals

	Iron Ore Total Tons	Canadian Ore of Total	Limestone
1930	2.97	00	.93
1935	2.12	.08	1.10
1940	5.60	.06	.22
1945	6.44	.05	2.40
1950	6.60	.57	3.48
1955	7.49	.99	3.98
1960	7.08	.73	3.19
1965	9.02	1.52	3.00
1966	9.41	1.63	3.03
1967	9.07	1.21	2.36
1968	8.36	1.09	2.27
1969	8.70*	1.02*	2.28*

* Preliminary figures

SOURCE: U.S. Corps of Engineers

TABLE D 7 - BUFFALO CUSTOMS DISTRICT[1], FOREIGN COMMERCE[2] 1946-1969

A. National Ranking Compared to Other U.S. Customs Districts

B. Value of Freign Commerce, Buffalo Customs District - in Millions of Dollars

		1946-50 Average	1951-55 Average	1956-60 Average	1961-65 Average	1966	1967	1968	1969
A.	RANKING								
	Export	6	6	6	6	4	4	4	5
	Import	7	7	9	9	5	5	3	3
	TOTAL	7	6	6	8	4	4	3	3 [3]
B.	VALUE								
	Export	$384.5	$566.7	$774.5	$893.8	$1400.8	$1509.7	$1607.8	$1844.4
	Import	216.0	405.7	417.4	557.7	1108.8	1390.2	2148.3	2681.9
	TOTAL	600.5	971.4	1191.9	1451.5	2509.6	2899.9	3756.1	4526.3

[1]Buffalo Customs District: ports and distribution points in Metropolitan Buffalo plus Dunkirk.

[2]Foreign Commerce, export and import (general): carried by vessel, air, truck, pipeline and rail; mail not included. Motor vehicles shipped through Canada are included.

[3]Customs Districts of New York and Detroit exceed value of Buffalo in total and in import; These are joined by New Orleans and San Francisco to exceed Buffalo in export.

Note: The port handles only a small percent of this commerce

SOURCE: Bureau of the Census: Foreign Commerce and Navigation of the United State, 1966, 1967 (for 1946-1965). U.S. Foreign Trade Summary, FT970-E and-I, December issues (for 1968, 1967). Highlights of U.S. Export and Import Trade, FT990, December issues (for 1968, 1969).

The Buffalo area falls under the jurisdiction of both the Erie County and New York State Health Departments in regard to the regulation of air pollution. Within the metropolitan area, there are four pollution zones. The City of Buffalo is covered by zones 3 and 4, the latter of which permits dust and dirt emission levels to 75 micrograms per cubic meter. This represents a reduction from the past where levels up to 280 had been reached. The state's air quality zones range from level 1 to 5, but the fifth level is not used. Zones 1, II and III permit levels of 45, 55 and 65 micrograms per cubic meter respectively. These levels are to be considered goals. Superimposed on Figure E 1, Air Pollution Zones, are densities of air pollution as recorded in June 1972.

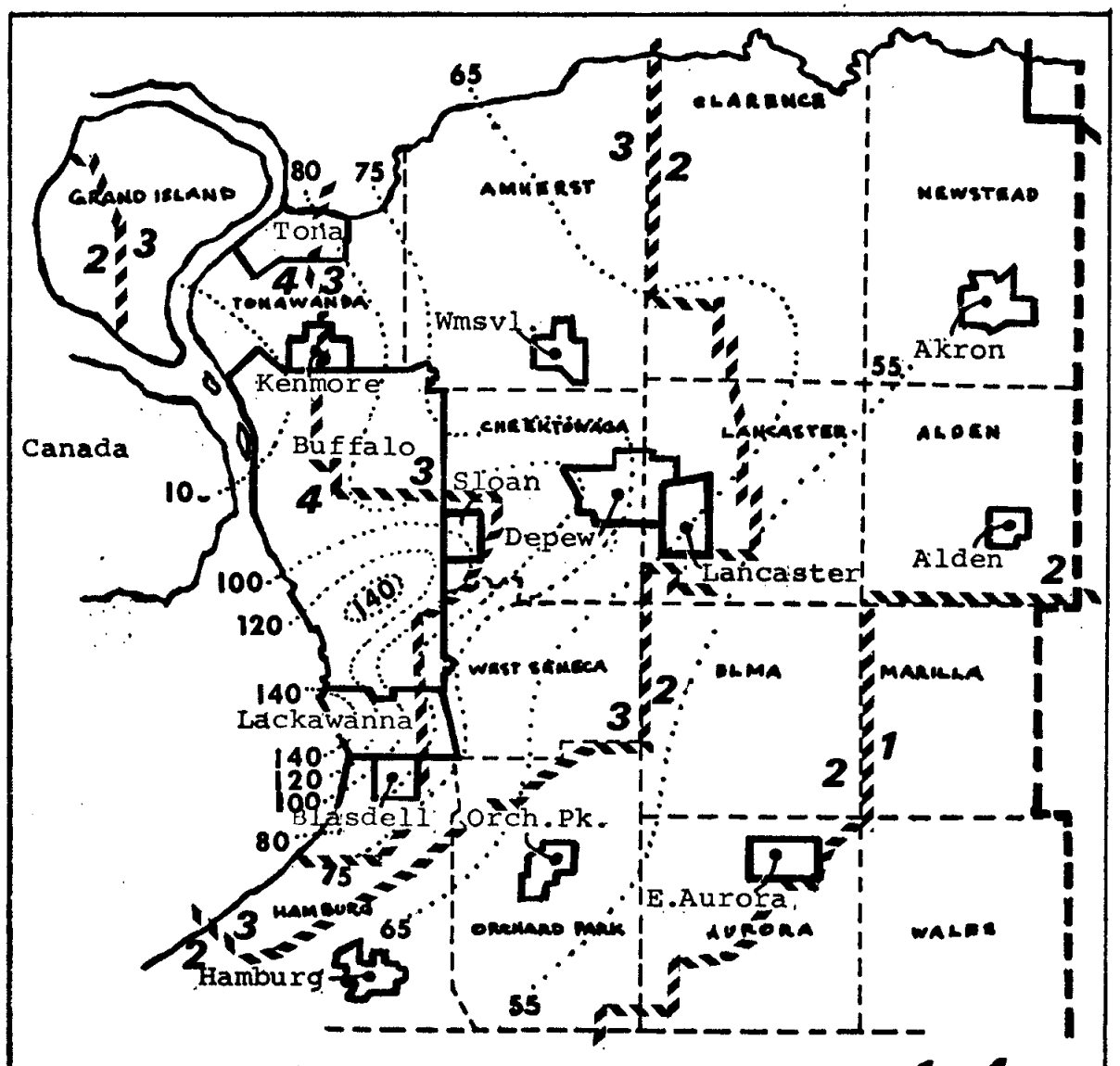


Figure E 1 - Air Pollution Zones, 1 - 4

TRANSPORTATION PLAN

BUFFALO MASTER PLAN
Chapter VIII

TRANSPORTATION PLAN

The design of a comprehensive transportation system is of critical importance in determining the future land use distribution within the city. In this sense, the transportation system has the potential of allowing or encouraging land use changes. In considering the function of Buffalo, the development of a desirable thoroughfare system is essential if the central city character of Buffalo is to be improved. The transportation system in a large metropolitan center has two major objectives:

To provide for the efficient movement of people and goods to and from the city, and

To provide for the efficient movement of people and goods within the city proper.

For the purpose of this discussion, the fact that both intracity and intraregional objectives must be satisfied, the criteria for the evaluation of the transporattion system have been considered separately. The primary arterial system is usually considered as being intracity serving. The expressway system has, in addition to local requirements, the accommodation of both intra- and interregional traffic movements. Since anticipated growth will be concentrated outside the city, the intraregional system requires the greatest scrutiny if the objective of capitalization on the central city function of Buffalo is to be achieved.

POLICIES AND OBJECTIVES

The Transportation Plan sets forth general requirements to adequately serve the proposed land use arrangements expressed in the master plan. At the same time they emphasize the central city function of Buffalo on the Niagara

Frontier. A difficult but desirable objective is the consolidation of diverse railroad property and lines owned by various companies serving similar or out-dated functions. Whie automobile traffic must be served, proposals for traffic improvements must be weighed against all the elements of the master plan. A desirable planning consideration is to encourage close relationship between places of residence and employment. Of major significance is the rapid transit proposal within the city. Such facilities not only provide tremendous carrying capacities in comparison to the automobile, but they also offer development opportunities of a unique nature.

In light of the general policies for the transportation system stated above, a series of specific objectives are listed:

Reduction in the length of travel time.

Increased accessibility to all parts of the city and metropolitan area, thus allowing for greater locational choice, both in place of residence and place of work.

Utilization of the transportation network to facilitate the achievement of land use objectives; as an example, relate the transportation system to proposed industrial areas.

Utilize the transportation network to encourage desirable functional changes within the central city.

Increased safety through the proper design of thoroughfares.

Improved levels of public transit service.

BACKGROUND - The Niagara Frontier Transportation Study (NFTS) began in 1961. The study's objective was to prepare a comprehensive transportation plan for the metropolitan area, Erie and Niagara Counties. NFTS employed a planning process consisting of three phases: inventory; forecast; and plan and test. The travel inventory was taken through extensive origin-and-destination surveys and traffic-volume counts in 1962, the base year for later projections. This material, combined with land-use information was used to develop trip generating rates. As a result of testing the alternate networks by advanced modal-split techniques, the NFTS recommended a Basic Corridor Plan consisting of a expressway network comprised of 120 miles of existing and under-construction facilities and 126 miles of new routes. The basic corridor plan was not well received locally.

NFTS also examined future mass transit needs. It concluded that if no improvements were made to the transit system of 1962, transit ridership would decline from an average weekday volume of 208,000 trips to 189,000 trips in 1985 during a period when total person trips were predicted to double. The NFTS devised eleven alternate proposals for transit-facility development and tested them against predicted travel demands. Although it did not make final recommendations, the NFTS indicated the corridors of high transit potential. The greatest potential was directly north from downtown Buffalo in what NFTS called the Kenmore Corridor. Second was the University Corridor to the northeast. Other significant volumes were indicated to the east, to the southeast, and to the south. Lesser volumes were shown eastward from Niagara Falls, on the perimeter of the Buffalo urbanized area.

The NFTS work was useful in identification of corridors and estimating volumes of use of the several alternatives but no decisions to implement transit improvements were made.

To assess the impact of the SUNYAB Amherst Campus and to suggest means of accommodating the expected growth, the New York State Office of Planning Coordination (OPC) was requested to conduct an impact study. A major recommendation was a rapid transit line in the Buffalo-Amherst Corridor (the University Corridor of the NFTS) generally along Main Street from the Buffalo CBD through the present SUNYAB campus and to the new Amherst campus. The NFTS was replaced by the Niagara Frontier Transportation Committee (NFTC) which was to perform continuing transportation studies in the area. The Buffalo-Amherst Corridor has been given highest priority for implementation.

The Niagara Frontier Transportation Authority was created to implement transportation improvements under a broad State policy for balanced transportation. The construction of the Buffalo-Amherst rapid transit line should get underway shortly and extensions of rapid transit facilities have been proposed. Acquisition of bus companies in the metropolitan area is contemplated by the N.F.T.A. and a transportation center will be built in downtown Buffalo.

EXISTING THOROUGHFARE SYSTEM - Figure 1 presents the major arterial and expressway systems within the city and adjacent metropolitan area. The primary arterials are radial in nature, starting at Niagara Square and radiating outward into the metropolitan area. The thoroughfares indicated represent facilities that mey be eligible for inclusion in a federal aid network. Among the primary radial arterials in Buffalo are Niagara, Delaware, Main, Genesee, Braodway, and Seneca Streets. The remainder of the arterial system takes the form of a modified grid pattern, with the streets either running north-south, such as Bailey, Fillmore, and Jefferson; or east-west, such as Kenmore, Hertel, Amherst, Delavan, Ferry, and William Streets. For the most part, the grid arterials are presently intracity service routes. An expressway system has been superimposed over the grid and radial arterial systems and generally takes the form of a circumferential belt system. The inner expressway belt consists of the Kensington Expressway and the Scajaquada Expressway. The second belt is defined by the New York State Thruway to the east and the Youngmann Expressway north of the city. This system is connected by a series of radial expressways; the Niagara Section of the New York State Thruway, the Buffalo Skyway, and part of the Kensington Expressway. The expressway system has been constructed independent of the major arterial system in terms of right-of-way alignments.

Figure 2, Average Daily Traffic, indicates points of traffic congestion north and east of the central core of the city. The historic pattern of development has moved in northerly and easterly directions from the central core. Consequently, the major traffic flows have been in this northeasterly corridor. Figure 3 combines the safety and capacity deficiencies as presented in the

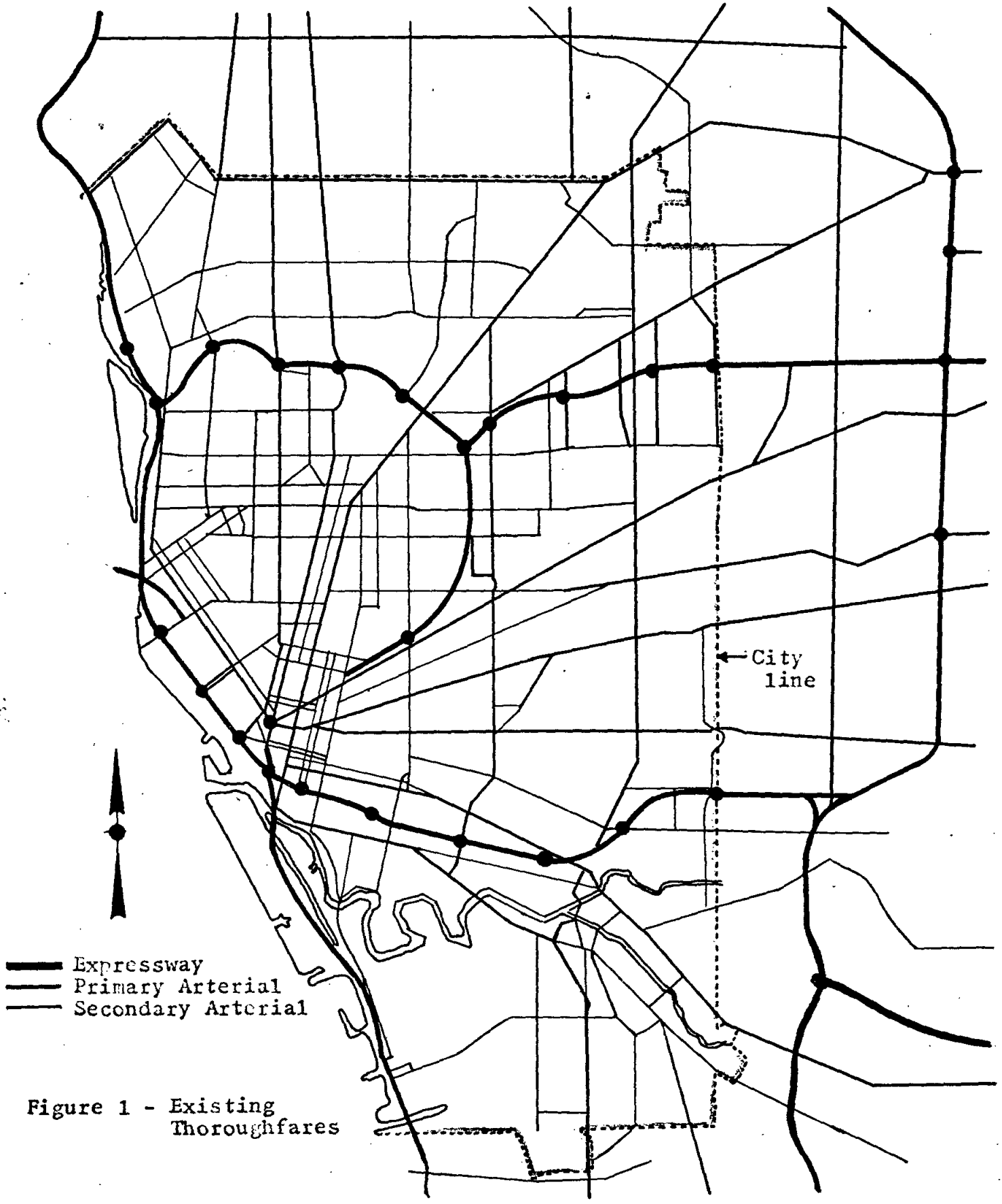


Figure 1 - Existing Thoroughfares

TOPICS study for the city. The TOPICS program will assist in the resolution of many of these problems.

The transportation system will determine to a large extent the manner in which the central core of Buffalo is to serve in a metropolitan capacity. If the core is to attract and retain sizable proportions of regional activities it will be necessary that accessibility to and from the core becomes one of the major provisions of the transportation system. Automobile movement within the city must facilitate the easy movement of people within the city in relation to the expressway system. The proposed rapid transit facilities and bus lines in the city which will play key roles in movement and in future development.

THOROUGHFARE STANDARDS, Table 1, presents general standards for thoroughfares as developed by various agencies operating within the Buffalo area. It is recognized that certain situations require individual solutions. However, thoroughfare standards will serve, as does the general land use plan, as a guide.

TABLE I –MINIMUM THOROUGHFARE DESIGN STANDARDS

			COLLECTOR		LOCALS	
Design Elements	Expressway	Arterials	Single Family Residential Areas	Other*	Single Family Residential Areas	Other*
(All widths measured in feet)						
Number of Traffic Lanes	4-6	4-6	2	4	2	2-4
Width of Traffic Lanes	12	12	10	11	10	11
Width of Curb Parking Lane or Shoulder	10	10	10	10	8	10
Median Width	20	12	–	–	–	–
Width of Right-of-Way	120-144	100-120	60	80	50	60-80
Design Speed (MPH)	50	40	30	30	25	25
Minimum Average Daily Volume	45,000-65,000	20,000-30,000	8,000	12,000	5,000	8,000

*Apartment, Multi-family, High Density Residential areas and Commercial Shopping Areas.

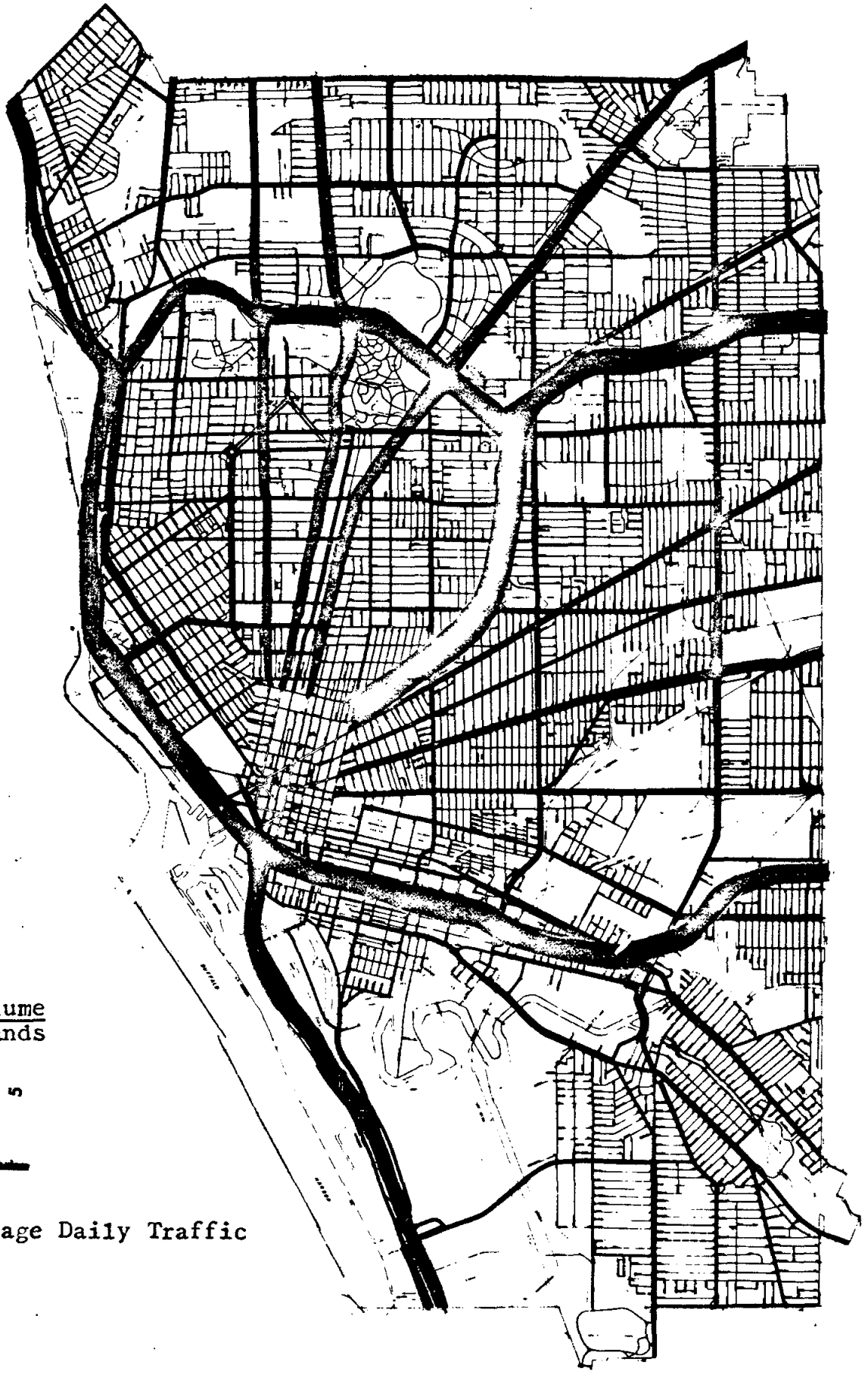
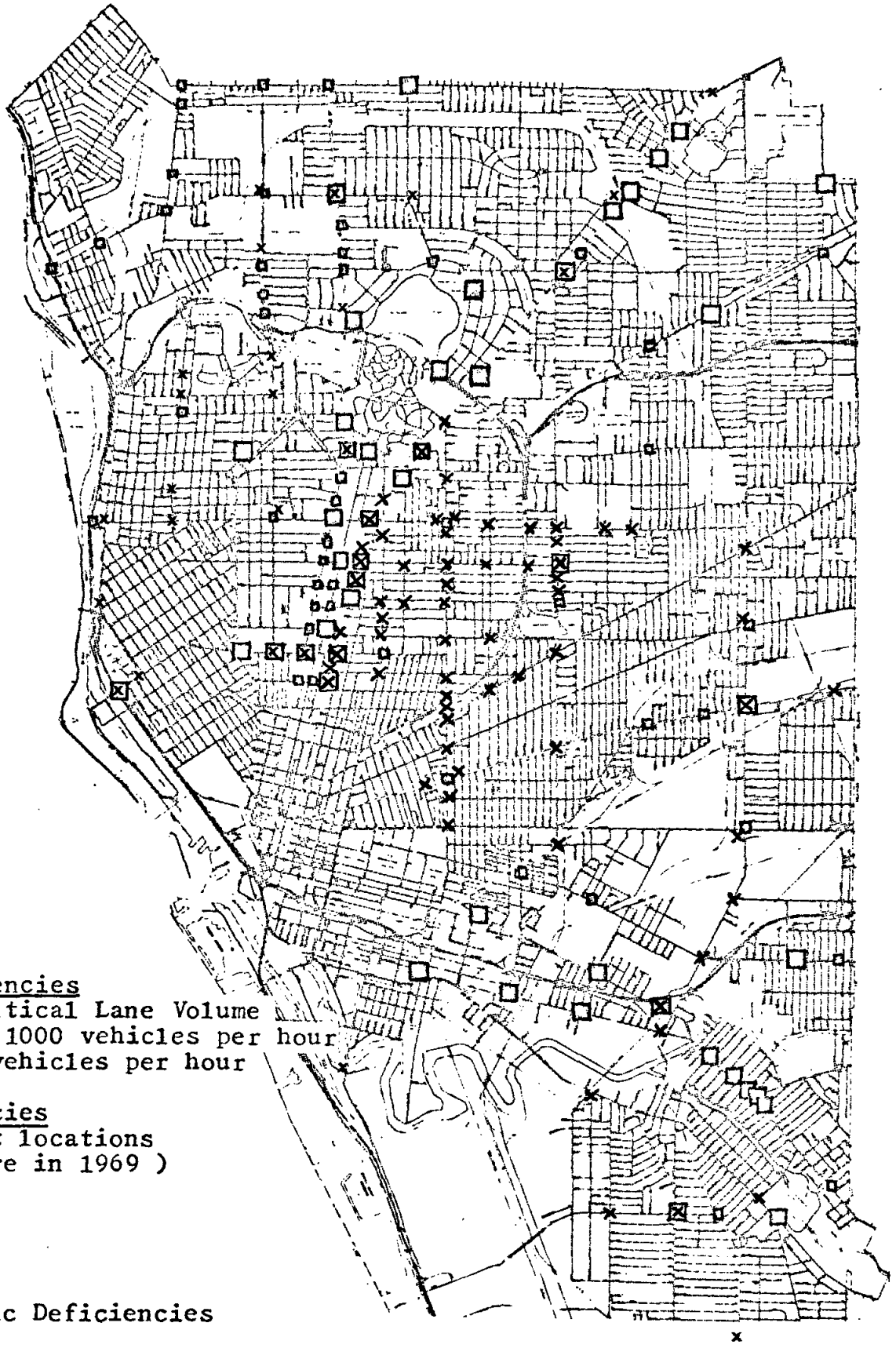


Figure 2 - Average Daily Traffic



Capacity Deficiencies
Intersection Critical Lane Volume
□ Greater than 1000 vehicles per hour
□ 800 to 1000 vehicles per hour

Safety Deficiencies
× High accident locations
(10 or more in 1969)

Figure 3 - Traffic Deficiencies

Thoroughfare Plan - The thoroughfare plan suggests some arterial improvements designed to solve existing circulation problems and to effect the desirable land use arrangements. The arterial system should be an integral part of the metropolitan thoroughfare system and conform with the objective of strengthening the central city function of Buffalo. It is not the purpose of the Thoroughfare Plan to make detailed studies of right-of-way alignments, construction costs, or interchange design. The following are the general recommendations made with respect to the arterial system:

The completion of the central core arterial loop. This will serve and define the core. It is essential that the design of this facility enhance the central city function and visual appearance of the core area.

There may be a need for a major arterial improvement to handle north-south traffic movements near the eastern edge of the city. This entire area is presently served by Bailey Avenue. This should be the subject of an individual study.

There is need for improved access to the port industrial area. To assist in the proper industrial development of this presently underutilized area there is need for increased accessibility.

An extension of the Aurora Expressway, is shown on the plan. It would help move traffic into the downtown area and provide increased accessibility to warehousing and industrial districts.

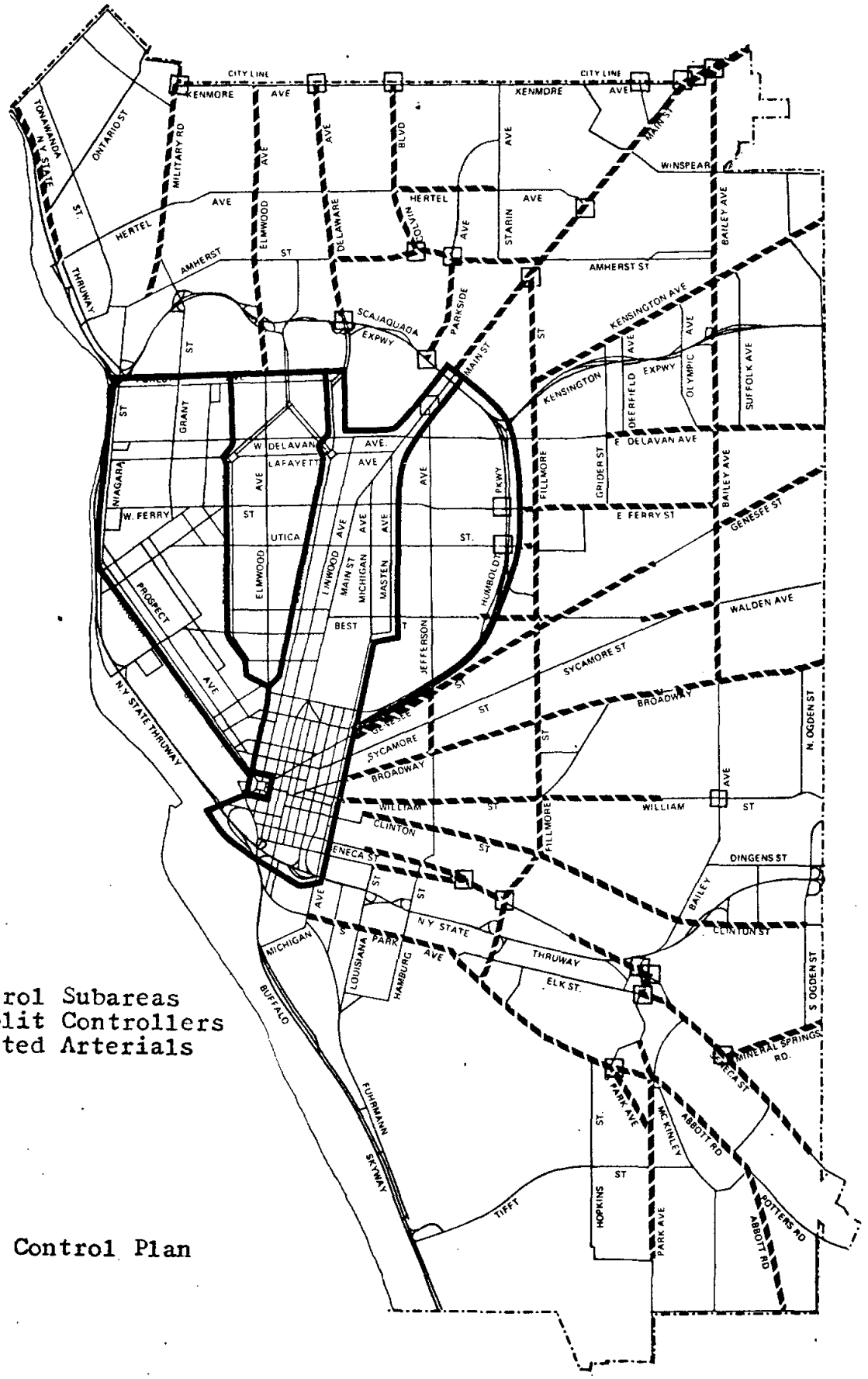
Other study areas and minor proposals are indicated on the plan. It is suggested that arterials, be improved to provide an efficient intracity system. Primary arterials should allow for connections with the expressway system and they should generally define community and neighborhood areas within the city rather than disrupt those areas. Thoroughfare proposals should be evaluated with

respect to population density and land use proposals. Continual review of transportation needs will be required. The exact location of proposed facilities can most appropriately be judged at the time of detailed feasibility studies.

A major factor in the improvement of traffic flow will be the recommended signal control plan as proposed by the TOPICS program, Figure 4. A computer would operate as a central processing unit providing inputs to each signal controller. It would receive traffic data from sensors permitting the system to adjust to situations before they become major problems.

TRANSIT PLAN - The desirability of improving the city's bus facilities is obvious when the population density of the city is considered. The existing patterns of development will never permit Buffalo to rely on a transportation system based on the automobile alone. It is necessary to propose improved bus service throughout the city. Eventually the privately-owned bus company will have to be acquired by a public authority to provide the necessary levels of service.

The proposed rapid transit line in the Buffalo-Amherst corridor will play an extremely important role in the movement of large numbers of persons in that corridor. It also calls for improved service of bus lines serving the rapid transit facility line. The extension of rapid transit service in the Richmond, Cheektowaga and Hamburg Corridors will expand rapid transit service throughout the city and adjacent urban areas.



Signal Control Subareas
Variable Split Controllers
Interconnected Arterials

Figure 4 - Signal Control Plan

Another transportation consideration concerns railroad facilities in the city. Consolidation of railroad lines providing duplicate service is recommended. Of the 27,000 acres of land which comprise the city, over 2,250 acres are occupied or owned by railroads. This is too much land to be devoted to that purpose. A study and implementation program to promote the most efficent use of land for railroad purposes is recommended. The cooperation of New York State would be necessary for such a program due to rights of the railroads involved. Improved facilities for waterborne movement of persons and goods also calls for individual study. The most efficient movement goods and persons, using the minimum amount of space with a minimum of polluting effects, should be continually stressed in the provision of transportation facilities.

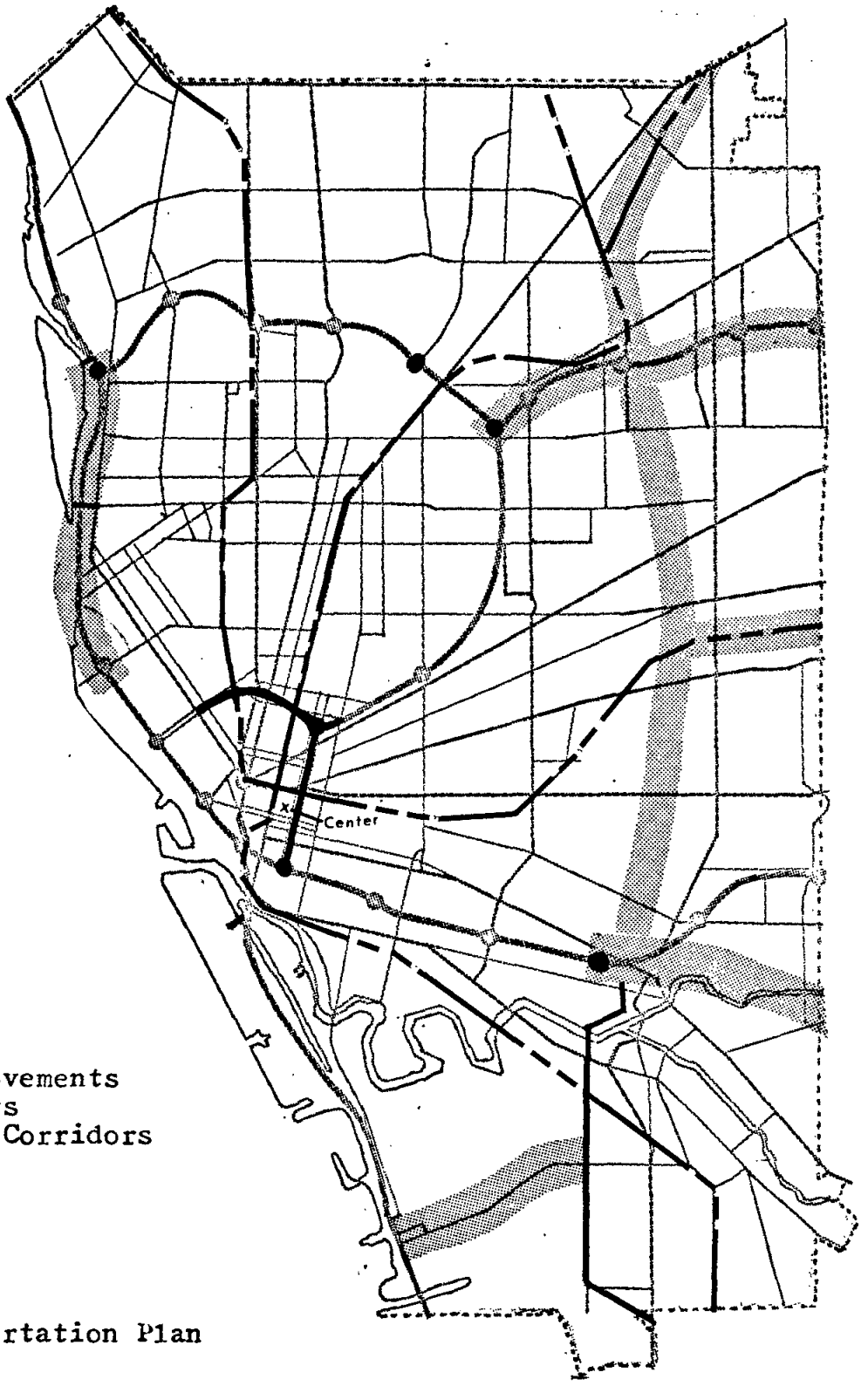


Figure 5 - Transportation Plan

This report was prepared for the Buffalo City Planning Board by City Planning Associates-East Inc., under the general supervision of T. Brooks Brademas.

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