

**Battery Park City
Draft Summary Report
And 1979 Master Plan**



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Prepared for Battery Park City Authority
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Errata: November 5, 1979

- Page 16 Third Paragraph
"Only 168,052 square feet of this lower Manhattan space was built after 1970."
- Page 16 Fourth Paragraph
"Present absorption levels are two to three million feet per year for Lower Manhattan."
- Page 17 Second Paragraph
"The late 1960's ..."
- Page 24 Second Paragraph
"... into a 64-unit complex of unfurnished lofts."
- Page 33 First Paragraph
"... phased to attract projects..."
- Page 33 Third Paragraph
"total inventory of 32 million square feet"
- Page 35 "Swig, Weiler and Arnow"
- Page 37 Footnote
"3½ decreasing to 1½ years"
- Page 41 Second Paragraph
"adjust to the regimen"
- Page 94 Last Paragraph
For 1981 read 1980
- Page 96 First Paragraph
For \$47.8 million read \$46.6 million
For \$62.7 million read \$59.3 million

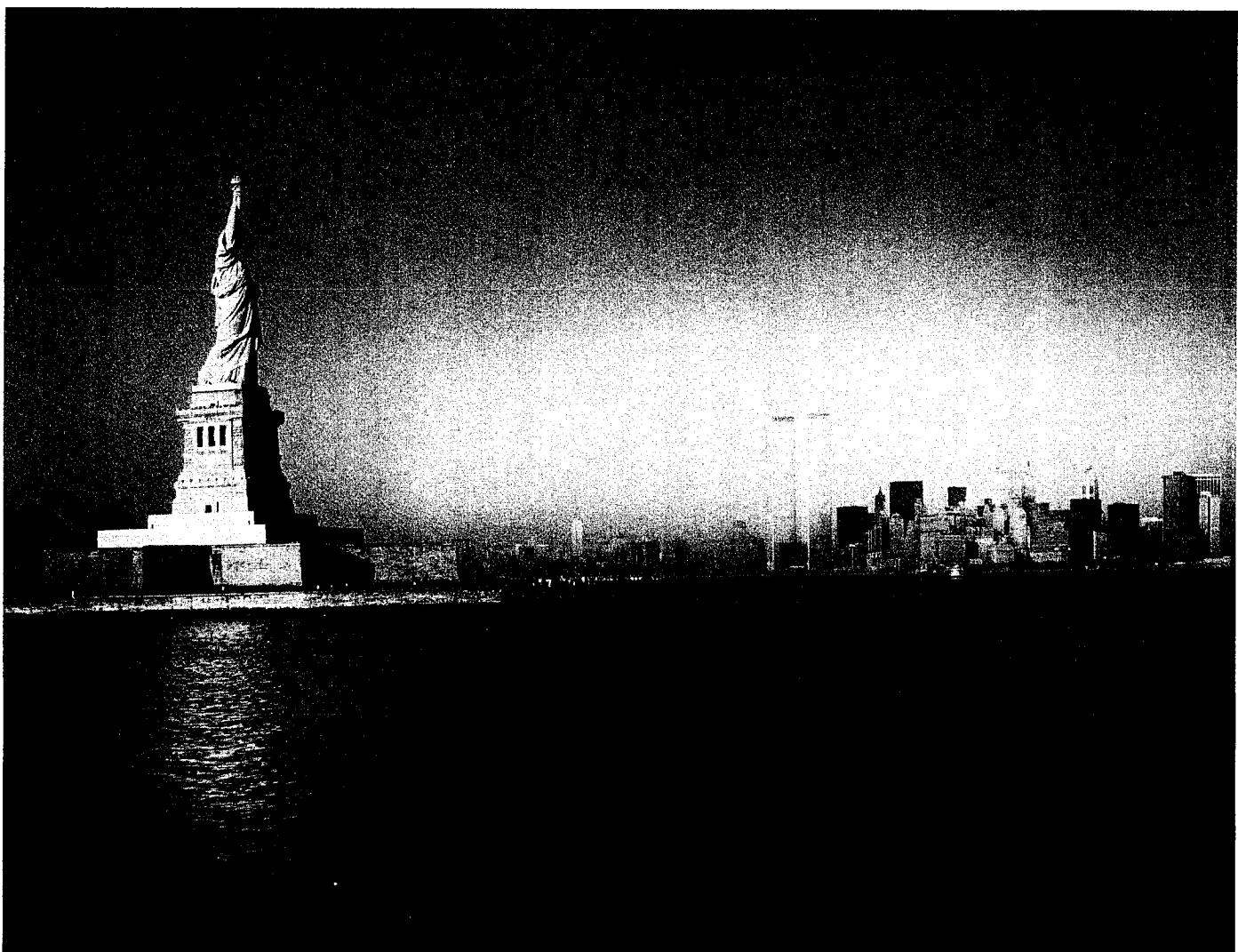
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Chapter 1

Introduction



CHAPTER ONE: INTRODUCTION

Battery Park City is a paradox: it occupies one of the most spectacular and potentially valuable sites in the world, yet it has been unable to generate developer activity. For five years, its landfill has stood substantially complete, but unused. Rarely has such a development opportunity--92 acres of vacant land immediately adjacent to downtown Manhattan--gone unheeded. But the interplay of changing market forces, national economic trends and the passage of thirteen years since the project was initiated have combined to raise serious questions as to the project's financial stability and its potential contribution to the future of Lower Manhattan. One thing is clear, the Battery Park City Authority will not be able to meet its expenses throughout the 1980's unless a major cooperative effort is mounted by the New York State and the City of New York to put it back onto a sound footing.

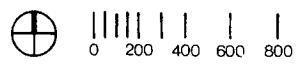
The State and the Battery Park City Authority are presently examining and discussing with the City alternative courses of action to solve the problems of Battery Park City. One of them is to reverse past and present government policies favoring the project. Under this course of action, the project could be terminated, the outstanding BPCA bonds repaid and the land sold or held for future use. An opposing course of action would be to maintain a commitment to the project and to strengthen its ability to attract private development and construction, thereby obtaining the earliest possible revenues.

The second approach has substantial support throughout government and the business community. Battery Park City's vital role in the upgrading of downtown's business environment has long been recognized. Development of the Hudson River waterfront was proposed by the State in May, 1966, as a "coordinated community" mixing residential and commercial development, along with necessary support facilities and recreational amenities. Later that year, a joint planning effort by the City and the Downtown Lower Manhattan Association backed this

Figure 1



New York Harbor



Battery Park City · 1979 Master Plan
Alexander Cooper Associates



proposal and placed it into the context of a broad strategy for Lower Manhattan. That strategy was to create a group of planned, predominantly residential communities around the rim of Lower Manhattan. Many of the 450,000 employees downtown could live there and walk to work. The presence of a mixed income population downtown after working hours was seen as the key to supporting better retail services; they, in turn, would help downtown compete with midtown for new office employment. As will be noted later in this report, this strategy and the basic planning objectives remain valid today.

Both the State and the City are analyzing the financial consequences of these opposing alternatives and the courses of action that lie in between. The State recognizes that it faces a major financial exposure if there is not a successful workout of the project. The City would suffer indirect losses if a workout is not successful: Any default on BPCA bonds would likely bring a subsequent interest increase on all City issues. Therefore, both levels of government are eager to find the right formula to overcome the present situation.

To help in forming the decisions that will flow from the reexamination of Battery Park City, the Authority initiated a review of the Battery Park City Master Plan by a group of independent consultants. The consultants' assignment was:

- To review the current plan for Battery Park City, in light of the changes that have occurred since it was completed in April, 1969. These changes range from the slower pace of citywide development to the particular development problems and opportunities present in Lower Manhattan. The changes also relate to evolving philosophies of urban planning and to important lessons learned from the last decade's experience with innovative development controls.
- To take account of the development possibilities in Battery Park City that are raised by the successful leasing of the World Trade Center for office and retail space. After many years of leasing activity, office space in the World Trade Center is nearly all rented or committed. An 825-room hotel is under construction as the last phase of the Center's development. The activity created by this mixture of

new uses represents considerable development potential for the immediately adjacent section of the project site.

- To test the current planning program for its workability. The program consists of 5-6,000,000 square feet of office space, 960,000 square feet of retail space, and 12,000 to 16,000 units of assisted and unassisted housing. The consultants were to assume this program would be continued, as far as practical, and to test alternative planning concepts that could accommodate it.

- To propose a revised master plan for the project that makes it more attractive for investment and responsive to current planning approaches. The current plan emphasized large, interconnected groups of buildings, intricate decking of structures and activities and overhead walkways. This plan should be critically examined with the objective of arriving at a planning framework that carries out the enduring principles of the present scheme, but in a simpler and more achievable form.

The Authority appointed the consultants in late June and requested a report at the end of twelve to fourteen weeks. Such a short study period has required concentration on the most critical aspects of the plan, while leaving many specific design questions for follow-up studies. This approach is in keeping with the generally accepted approach to large-scale site plans: Detailed attention is given to the public areas, while only general guidelines are indicated for the buildings which could fit in between these areas. In the case of Battery Park City, the public areas of greatest importance are the streets (which will set the structure of the development) and the open spaces (which will be the principal public amenities). Consequently, the major planning effort focused upon these elements.

In developing a revised Master Plan, the consultants have sought to avoid a major weakness of the current proposals-its rigid framework. The revised plan is deliberately flexible and capable of refinement during subsequent public review and implementation.

This report provides a summary of the technical work which led to the formulation of the revised plan.

The report draws upon work carried out by both the lead consultant and by a team of special consultants. A listing of the consultants who have contributed to this study appears in the Appendix.

The report is divided into an introduction and five other chapters. Chapter Two reviews the problems of the original plan and Chapter Three describes the external factors that the team considered in developing the revised proposals. Chapter Four describes public policy, development and program considerations. The chapter begins with a consideration of the agenda before City and State agencies involved with Battery Park City. It then addresses the locational, transportation, physical and market factors operating within Lower Manhattan. With this background, the chapter lays out the basic theme of the concept: Battery Park City as a natural extension of Lower Manhattan, rather than a linear city separate from it.

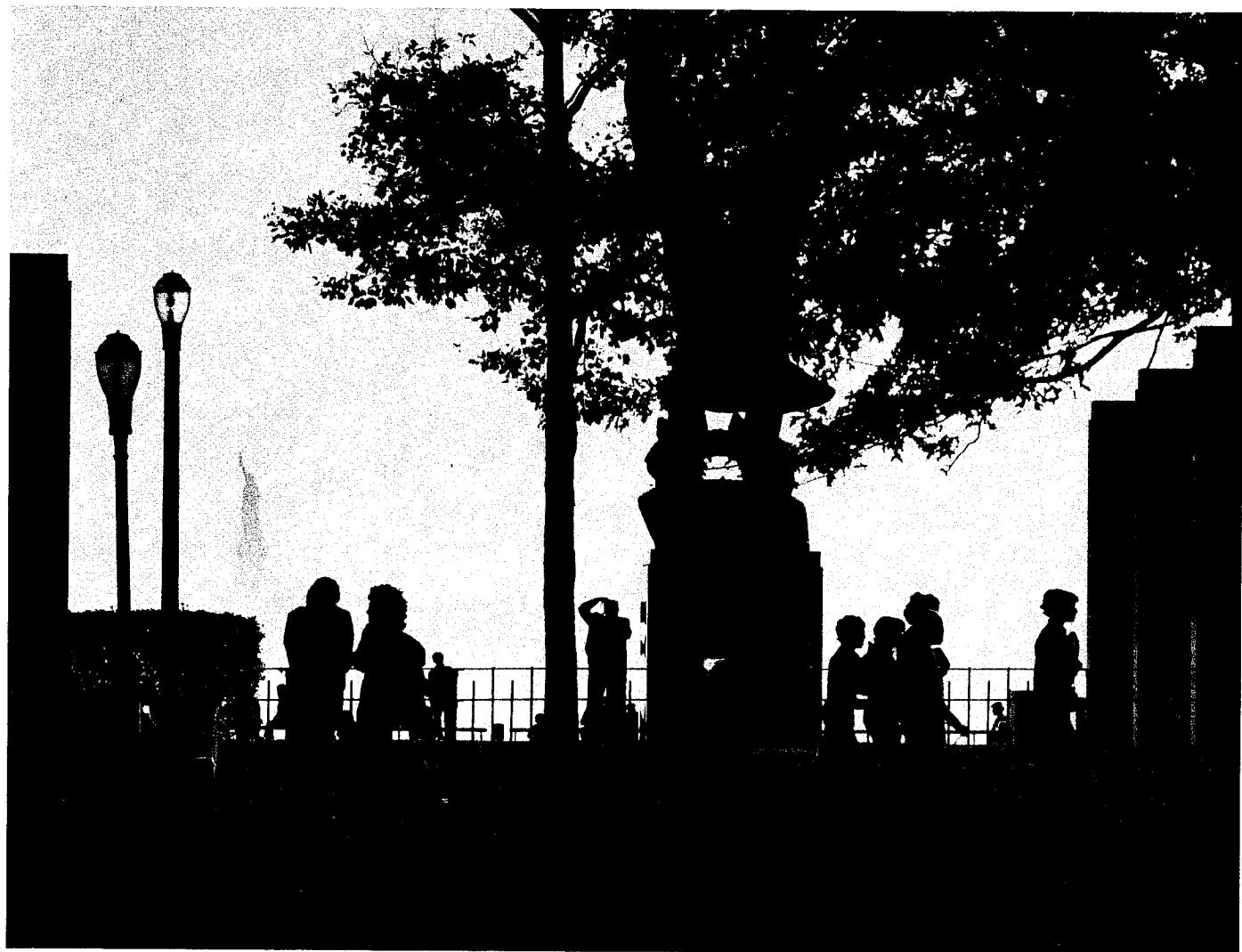
Chapter Five describes the 1979 Master Plan. The principles that govern the proposals are laid out first; then the revised plan's land allocation, site layout, circulation system and open space proposals are explained. Finally the design of the priority public areas and the Commercial Center are developed in some detail.

Chapter Six indicates strategies for implementing the revised plan. It sets forth a development concept closely linked with the planning concept. The financial implications of the plan are presented so that the Authority may reasonably anticipate the project's cash flow requirements. The chapter concludes with guidelines for amended development controls to govern the plan.

The 1979 Master Plan summarized in this report offers a highly-desirable and workable approach to moving Battery Park City ahead. Other approaches have been examined but found to be less advantageous. The proposed plan offers a simpler, more easily developable layout than before. At the same time, it contains more direct and attractive public benefits than previously. Implementation would be guided by a strategy for less complicated but more sure controls than the present ones. The combination of these advantages should help to attract the private investment needed to turn Battery Park City into a reality.

Chapter 2

Review of the 1969 Plan



CHAPTER TWO: REVIEW OF THE CURRENT MASTER PLAN

The consultants have tried to accomplish two main objectives in their review of the current plan for Battery Park City.

The first is to isolate those problems with the current plan and its administrative arrangements that have held back or prevented development of this extraordinary site.

The second is to review the changes that have occurred in Lower Manhattan, in federal policy making and in urban planning practice since the Master Plan was drawn up in 1969. This second objective is addressed in Chapter Three (Figure 2).

With respect to the first objective, it is clear that the development of Battery Park City has been hampered by two types of difficulties; those which are factual and others which are perceptual. The consultants have reviewed the existing Master Plan and discussed it with members of the development community, public officials and other professionals. The distillation of this review process indicates that there are three categories of "real" problems and three sets of "perceived" problems.

2.1 Real Problems That Have Hampered Development.

Developers have been deterred from locating in Battery Park City by the following:

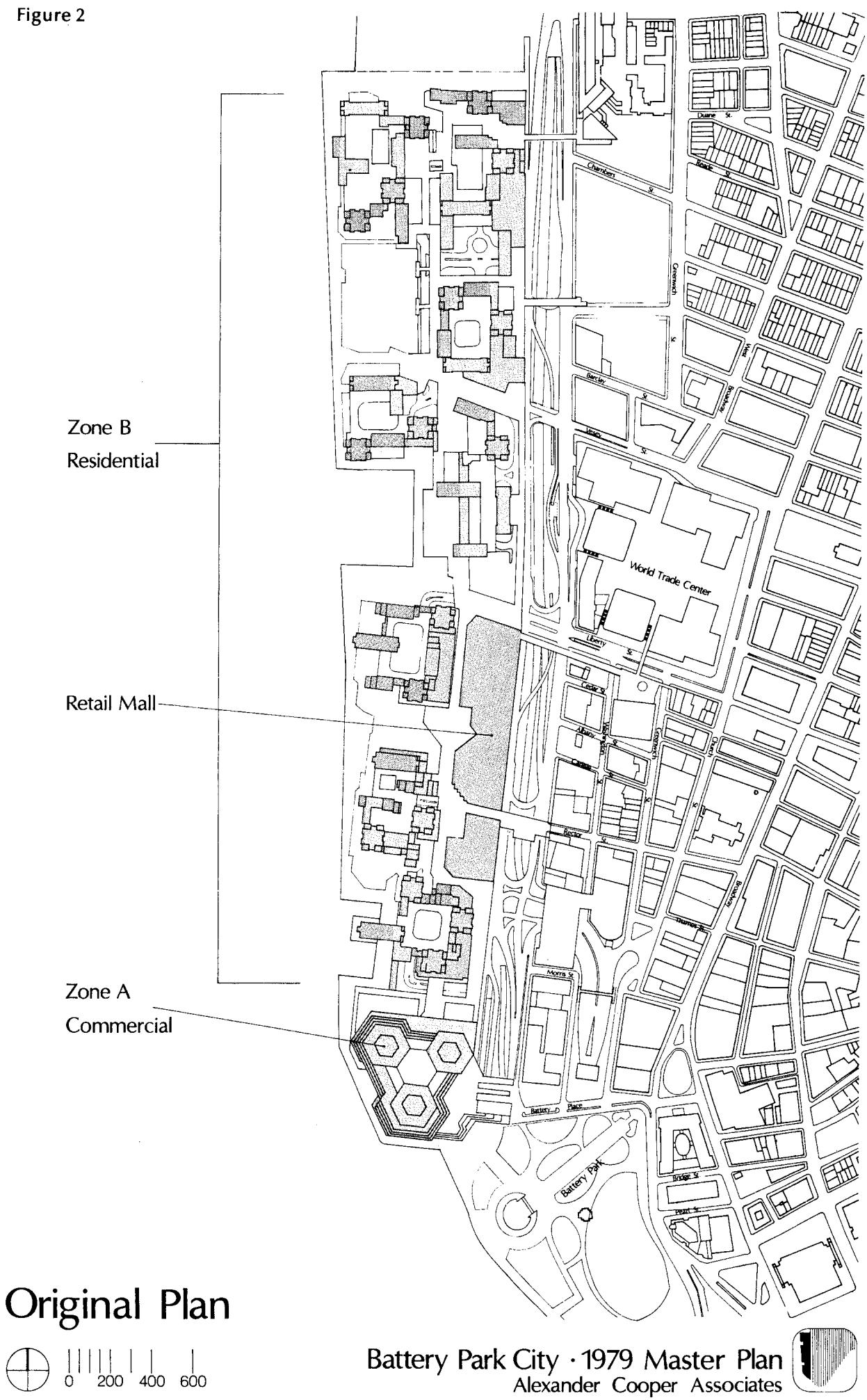
- Market uncertainty and an excessively rigid large-scale development format
- Overly complicated planning and development controls
- Questions as to the financial stability of the Authority

2.1.1 Market Uncertainty

Undoubtedly one reason for the failure of Battery Park City to attract development during the early years was the glut of commercial office space in Lower Manhattan during the mid-1970's and the failure of the residential market to strengthen during the same period.

During this period of uncertainty, the City's large developers were unwilling to build in Battery Park City. These developers, though few in number, are influential in the construction of the high-rise, large-scale properties that the original Master Plan called for. A number of developers entered negotiations with the Authority but the private investments needed to initiate a development project in Battery Park City were simply not forthcoming.

Figure 2



Although the market conditions of the past were a real deterrent, there are signs that the situation may be changing. The decision of the American Stock Exchange to build its new headquarters at Battery Park City has demonstrated the site's ability to satisfy the requirements of a major financial institution. The headquarters will include 250,000 square feet of offices in addition to the trade floor. The choice of Battery Park City over five other available sites is witness to the assets of the site adjacent to the World Trade Center and to the Hudson River waterfront. It is to be expected that these assets will become increasingly important as the present tight office market in Lower Manhattan begins to generate the need for new buildings.

The Authority is also negotiating with a developer for the recommencement of construction (foundations are already in place) of 1,642 units of rental housing planned for its POD III complex next to Liberty Street. While financing and insurance arrangements are close to completion, market conditions for tax-exempt bonds have precluded a fall construction start. If FHA insurance arrangements can be made soon, and if the market for tax-exempt bonds improves, it is hoped that POD III construction can proceed in the spring of 1980.

Continued improvement in the market is fundamental to the success of Battery Park City. But with a plan that can only accomodate large-scale projects requiring major investments, the Authority will remain vulnerable to future economic changes. To overcome this problem the Authority must be able to offer a wider range of development opportunities to a larger and more diversified group of developers.

Clearly, uncertainty about the market undoubtedly prevented some developers from proceeding with projects in Battery Park City. Others were unwilling to engage in the complicated and time-consuming process made necessary by the complexities of the current Plan and the related New York City lease provisions.

2.1.2 Overly Complicated Controls

The consultants found a consistent sentiment that the Authority suffers from over-regulation. This is a real problem from two points of view. First, the Authority is a "covered organization" under the New York State Financial Emergency Act. Consequently, all of its

major expenditures must be approved by the Financial Control Board, potentially causing delays in essential project outlays. Second, the site is subject to a highly-specific Special Zoning District, administered by the City Planning Commission and the Director of City Planning which limits development flexibility on the site.

The purpose of the District is to insure that the project's buildings, open spaces, and community amenities are in keeping with the City's objectives and planning policy, the framework of which was established in the Lower Manhattan Plan of 1966. The most important of these objectives are an improved working environment, a rationalized circulation system, and an attractive waterfront. For each parcel of developable land, the Special District maps and describes such requirements as building lines, visual corridors, arcades, pedestrian connectors, overhead bridges, esplanades, people-mover corridors, and others.

As the Authority began negotiations with developers, difficulties arose with the Special Zoning District provisions. The prescribed elevated pedestrian system proved cumbersome and expensive. The pedestrian connections and overhead bridges only worked when linked to other sections of the development. The plan was clearly not geared to an incremental building program scheduled to last more than a decade. Most importantly, the District's rigid requirements encouraged developers to propose buildings that met the regulations in the most literal way. The design quality suffered. The regulations caused developers to give first priority to minimizing their risks, and the broader design considerations were lost. Negotiations among the Authority, the developers and the City often became long and involved, delaying possible construction. Many developers decided to go elsewhere rather than to build under the most demanding regulations in the City. This exacerbated the Authority's problems.

Clearly, a review of present legislation and regulations must be undertaken. One effective way to expedite decision-making would be to remove the Authority as a covered organization under the Financial Control Board and place it instead under the jurisdiction of the Public Authorities Control Board. Another modification might be to allow the

design review process to be carried out by the Authority itself pursuant to a set of performance criteria agreed upon by the Authority and the City. Under any circumstances, the State and City must address these administrative issues on a high-priority basis, otherwise the effectiveness of the other actions to make the plan more attractive, which are recommended later, will be neutralized.

2.1.3 Questions As To The Financial Stability Of The Authority

The third "real" problem has grown out of the first two and concerns the financial footing of the Authority. Put simply, the lack of development has placed the Authority in a position where it is unable to meet its financial obligations. Since the provision of infrastructure to support development has to be carried out by the Authority, private developers require complete confidence in the ability of the Authority to finance such improvements.

The original financial plan of the Authority has counted on revenues from ground rent starting in 1976, but the delay in construction has left the Authority without such income. The only income available to it is the investment earnings from the remaining proceeds of the Authority's \$200 million dollar bond issue in 1972. These earnings are approximately \$7 million per year, but they are declining rapidly as the Authority's expenditures on bond interest, site improvements, and administrative and operating expenses continue apace. As of November 1, 1979, the Authority has spent a total of \$115 million, leaving \$85 million available. The current annual cost of debt service and administrative expenses alone is estimated at approximately \$14 million. This will increase to about \$16 million in 1980, as payments on the bond principal begin. Unless development starts quickly and ground rents begin to flow to the Authority, the remaining bond proceeds will be exhausted by the mid-1980's.

Even if the recently announced American Stock Exchange is constructed at Battery Park City, the likely revenues accruing to the Authority for ground rent are only \$575,000 a year, according to an April 1979 study by the State Assembly.*

* Committee on Legislative Oversight and Investigation New York State Assembly, "Financial Prospects for Battery Park City Authority", April 6, 1979.

This amount would offer only marginal relief to the Authority's revenue shortfall. Similarly, the Legislature estimates that the POD III housing development adjacent to the Exchange would only generate annual revenues of \$1.2 million per year.

Co-operative efforts of the State and the City together with the adoption of a new Master Plan should be able to attract development to Battery Park City. Nevertheless, there will still be a need for funds from other sources during the coming years.

The State must provide the confidence required to attract developers and to satisfy financial institutions making investments in Battery Park City. A firm and totally convincing financial commitment will be needed to the future of the Authority and the project.

2.2 Negative Perceptions of Battery Park City

Developers and tenants hesitated to locate in Battery Park City due to the following negative perceptions:

- A lack of assurance about timely provision of infrastructure
- Uncertainty about Westway
- Lack of construction by an initial developer

2.2.1 Unassured Provision Of The Infrastructure

There is a perception that the Battery Park City Authority may not have the resources and expertise to assure the provision of infrastructure when it is needed for particular buildings on the site. Potential delays are a dual concern regarding both management and regulations. The Governor's decision in January 1979 to make major management changes was a response to this question. A new management team has been installed and has initiated a needed review and reassessment of the situation. A critical factor will be the speed with which the new management team can move to begin construction of long-delayed projects. Providing that the long-term financial stability of the Authority can be achieved, there is no reason to believe that the Authority cannot provide the necessary leadership and competence to complete necessary infrastructure improvements.

2.2.2 Uncertainty About Westway

The state of uncertainty that surrounds Westway has created doubts about future access to Battery Park City. One doubt relates to access to and from Battery Park City if Westway is not built. Another doubt

concerns the potential impact on Battery Park City during the construction period if Westway is built. Under either set of circumstances, the impacts on the Battery Park City site are generally overstated. If Westway goes ahead according to plan and in conformance with City and State policy, it will obviously provide excellent access to and from Battery Park City.

The construction would take place within the 250-foot right-of-way of West Street that now exists. There would be adequate temporary provision for traffic to the Brooklyn Battery Tunnel and to the east side underpass. They would not interfere with the waterfront-oriented development at Battery Park City.

If Westway is not built and the West Side Highway is torn down, West Street could be rebuilt to serve the entire frontage of the project with an at-grade boulevard configuration, providing continuous access to Battery Park City at numerous points.

2.2.3 Lack Of An Initial Developer

Many large-scale projects in American cities experience difficulty getting underway because no developer wants to be first in an unbuilt site. Battery Park City is no exception. Even in a City like New York, with many experienced developers, sizeable mixed-use projects are too complex for all but a handful of sophisticated development firms. They have the diversified staff, financial backing, and organizational expertise to carry out such projects. Furthermore, they are better able to shoulder the risks of large-scale development.

The strategy of the Authority has been to convince any one of these development firms to participate, hoping that the force of this example would attract more activity. Unfortunately, the timing of events worked against this strategy. First, the completion of the six-year landfill program coincided with the beginning of the national real estate recession in 1974. No development began during this period. Second, the glut of office space, especially in the World Trade Center, brought all new office construction downtown to a halt. Third, the unsuccessful experience of Independence Plaza created serious doubts as to the viability of housing along the waterfront of Lower Manhattan. As a result, developers, banks, investors, and government insurers all developed a negative perception of Battery Park City. None participated,

even though some had announced publicly that they would. Only recently has this started to change, largely as a result of the AMEX decision to locate in Battery Park City and the aggressive pursuit of other projects by the new management team. But clearly, other major projects must follow suit quickly.

Modification of the 1969 Master Plan is essential in order to provide a different development concept. Instead of restricting development to huge commercial and residential complexes that only large firms can undertake, provision should be made for a variety of small, medium and large-scale building opportunities. A much wider cross section of the development community would therefore be able to participate in the construction of Battery Park City. This should quicken the pace of development and broaden the selection of building types.

In summary, the real and perceived problems with the current Battery Park City Master Plan appear to be manageable, provided that they are recognized and attacked comprehensively. The inadequacies of the current Master Plan are well understood, as are the problems associated with the complex development approval process. The important point is to recognize the interdependence of the various factors that have contributed to the failure of the project to date.

Modifications to the Master Plan must be accompanied by a reduction in the complexity of the planning controls and a commitment to the financial stability of the Authority. The new management must demonstrate its ability to construct infrastructure, to put the Westway project in perspective and to get initial development projects off the ground. These are formidable tasks, and they cannot be achieved without the co-operation of the State and the City and the confidence of the financial, development and business communities.

Chapter 3

Changes Since 1969



CHAPTER THREE: CHANGES SINCE 1969

In addition to reviewing the current Master Plan, the consultants also examined the changes that have occurred in Lower Manhattan, in government policy and development activity since the publication of the original proposals. The purpose of this review is twofold.

- To test whether there are sufficient public policy reasons for proceeding with the development of the Battery Park City site; and
- To identify changes in the external context of the project that should be recognized in the preparation of a revised Master Plan.

Ten years is a long time in the life of a city as dynamic as New York. In that period, City administrations have changed twice, important development agencies have been renamed and reorganized, the financial crisis has been weathered, new policies have been announced, new programs have been developed, and new concepts of city planning have emerged. Also, a number of important developments which were on the drawing boards in 1969 have been completed. The consultant's identified three categories of change likely to affect Battery Park City:

- Changing development concepts and planning techniques
- Changing market factors impacting development
- Developments in Lower Manhattan

3.1 Changing Development Concepts

Professional viewpoints and working techniques have fundamentally reshaped the fields of city planning, urban design and property development over the past ten years. Benefiting from the sometimes bitter lessons of experience, from a deeper understanding of how cities function and from an increased awareness of what constitutes a successful urban place, the planners and developers have become more sensitive to what exists and more realistic toward achievable objectives.

The emphasis on planned new communities and massive new towns-in-town, fashionable to the 1960's, has been replaced by a return to more fundamental forms of urban development. This follows the failure of federal programs such as Title VII that encouraged these communities.

It is now realized that the financial costs of massive self-contained projects are out of scale with the public benefits derived from them.*

In addition, radical changes have occurred in the attitudes of urban designers and architects. Battery Park City's original plan conceived of the project as a single continuous building --a megastructure. Its framework was to be a retail and circulation spine running its entire length. Buildings were to be built over the spine or next to it. As early as 1973, this scheme's financial and market problems had become apparent, and the plan was revised; the spine was shortened and the multiple uses along it simplified. The housing was moved onto pods, and the shopping center became a separate, though interconnected, unit. The office buildings were limited to the southern end of the site.

Yet the legacy of the megastructure concept still remains in the present plan and continues to present difficulties. The framework is too costly and too fixed to allow the necessary flexibility for incremental development. These difficulties are similar to those which prevented the actual building of other such designs in many other cities. These complex, integrated, single building projects rarely reached fruition, unless they were sponsored by such non-profit institutions as colleges, research institutions, expositions, hospitals, and, of course, government. They have rarely been carried out where the majority of the financing is to be private, over a long development period. In a study of these "urban futures of the recent past," it was concluded that "the few built examples (stand) isolated in the architectural wilderness like dinosaurs surviving, not from any past epoch, but from a fossil future that was not to be...*"

The concept of the megastructure has been replaced by more traditional and successful concepts of city buildings. The multi-purpose street is seen as the prime organizing element, instead of a complex decked service spine. Architectural proposals reflect surrounding conditions. Parcels with street frontage are used as the basic development unit, in recognition of their adaptability and flexibility to changing requirements.

* Hugh Evans and Lloyd Rodwin, "The New Towns Program and Why It Failed," The Public Interest, No. 56 Summer 1979.

* Reyner Banham, Megastructure: Urban Futures of the Recent Past, New York: Harper and Row, 1976.

These concepts have stood the test of time. Indeed, they have been characteristic of the most emulated urban districts in the world. In Manhattan, they were the basis of the original 1811 street plan, which has proven to be remarkably adaptable to modern building and transportation technology. Even Manhattan's most successful planned development, Rockefeller Center, owes much of its environmental quality to its recognition of the basic street grid. At Battery Park City, the urban design challenge is to recapture this heritage in meeting the development needs of the 1980's.

3.2 Changing Market Factors Impacting Development

Over the past ten years there has been an evolution of market constraints affecting urban development. Government programs, too, have changed and, in many cases, contracted. The impact of these changes on New York City has been particularly strong.

First and foremost is the reduced pace of office development, following the boom years of 1969 to 1972. Overbuilding during that period left Manhattan with 31.8 million square feet of vacant office space in 1973.* Due to the national real estate recession of 1973 to 1975, and the subsequent ill effects of the New York financial crisis, it was not until 1978 that this enormous inventory was reduced to manageable proportions. Today, the inventory is down to 9.4 million square feet, mostly in older buildings; one-third of this space is in Lower Manhattan. Only 168,052 square feet of this Lower Manhattan space was built after 1971.** Rents there are rising again and now achieving a range of \$12 to \$15 per square foot of prime space.

Battery Park City's original program was based upon absorption of office space at a level commensurate with the boom years of 1966 to 1970. Present absorption levels are two to three million square feet per year for all of Manhattan.***

* Cross and Brown, Survey of Available Office Space In Manhattan, July 1979.

** Carter B. Horsley, "Cities Robust Office Market Posts A 'No Vacancy Sign,'" New York Times, January 28, 1979.

*** See Chapter Four of this report and report of Eastdil Reality, Inc., 1979 Master Plan: Financial Report, October 1979. For further discussion of development potential and financial projections.

This is one-half of what it was at the height of the boom period. If this pace continues, and is not further limited by the current recessionary climate, it suggests that absorption of the five or six million square feet of office space to be provided is still possible, but it would be built over a longer period.

Like office development, housing construction in New York has slowed dramatically during the last ten years. The last 1960's were a period of intense residential activity: Large numbers of high-rise luxury buildings were being built in midtown, the upper East Side, and around Lincoln Center on the West Side. Strong State and City Mitchell-Lama programs were available and were producing middle-income housing in many neighborhoods. The Federal government's Section 235 and 236 programs were beginning to finance a significant amount of modern-income housing.

As a public benefit corporation whose primary mission is to build housing, the Battery Park City Authority had available to it the possibility of tapping considerable private and public resources for housing construction. Even though the original financial plan for Battery Park City envisioned subsidizing ground rent for housing through office rents, it was clear that Federal, State and City subsidies would be needed to lower rents to middle and moderate-income levels. Without these subsidies, Battery Park City could not provide the mix of housing required by the Master Plan.

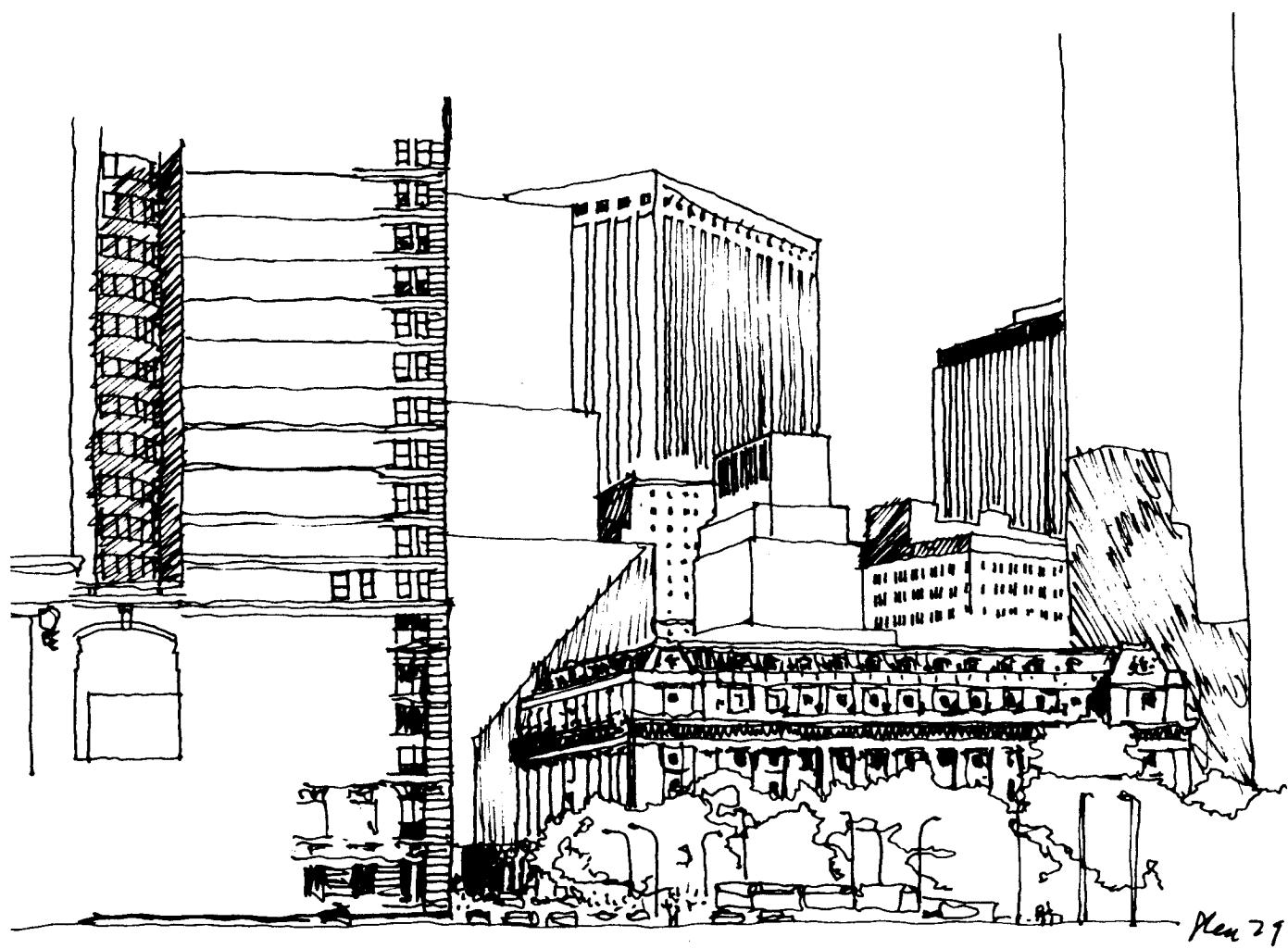
By the mid-1970's, the housing field was in turmoil. The national real estate recession had abruptly halted a number of luxury housing projects (including the Park Vendome and Nevada Towers in Manhattan); plans for new luxury buildings were shelved and construction ground to a halt. In January, 1973, the Federal government halted the initiation of moderate-income projects, and this action effectively cut off the previously committed construction by 1975. Rapidly rising construction costs, together with the New York City financial crisis of 1975, brought an end to the City and State middle-income housing programs. The long-term costs of government-financed mortgages were judged beyond the reduced means of the City and State. Also, inflationary rises in rents had convinced many decision makers that the program was no longer able to meet the needs of the middle-income group.

Consequently, the mechanism for providing large numbers of subsidized middle and moderate-income housing --as originally envisioned--does not now exist. The Battery Park City Authority mortgage for POD III, the first residential development in the project, will allow rents below market levels, but they will be middle income or higher. Hopefully, the State will continue to provide such mortgages but this is not assured. The State is not in a position to sponsor moderate-income housing, and there is no technique for meeting the needs of this income group. The City of New York intends to examine all policy options available with regard to the future housing component of the project.

The private market for new housing has revived in Manhattan since 1977. Cooperative apartments have become scarce, and their prices have reached and exceeded the record levels established in the 1960's. Rental apartments are exceedingly hard to find and rents have been escalating sharply. In response, developers have resumed construction of new buildings; they are renting as soon as they are being completed, despite rents approaching \$300 per room per month. The number of units being produced is modest, though. The level of production is well below that of the boom years. Demand remains strong, and the prospects for new housing developments are good.

Battery Park City should benefit from this trend. It is a short walk from the World Trade Center, the Financial District, and the Civic Center. The site is roomy enough to provide large areas of public and private open space; this will allow it to compete for residents who would not be satisfied with the confined amount of outdoor space in loft renovations. Finally, future apartments can offer views of the harbor, the Hudson, and Lower Manhattan that are unavailable from other housing locations. However, to attract wider developer participation, there is a need to review the current Plan's emphasis on large building sites: A wider variety of site sizes would allow a more diverse group of developers to participate, therefore hastening the pace of development.

Battery Park from South Cove



In summary, it is apparent that there is a more cautious, but more sophisticated, attitude toward large-scale urban development than in the 1960's, when the original Battery Park City plan was conceived. While the outlook about downtown's future remains good, the "boom" atmosphere has subsided. Today, the prospects are for solid, continued growth at a modest rate. Growth may quicken in the mid-1980's, as the business cycle moves beyond the present recession, and as the tightening shortage of office space precipitates development activity.

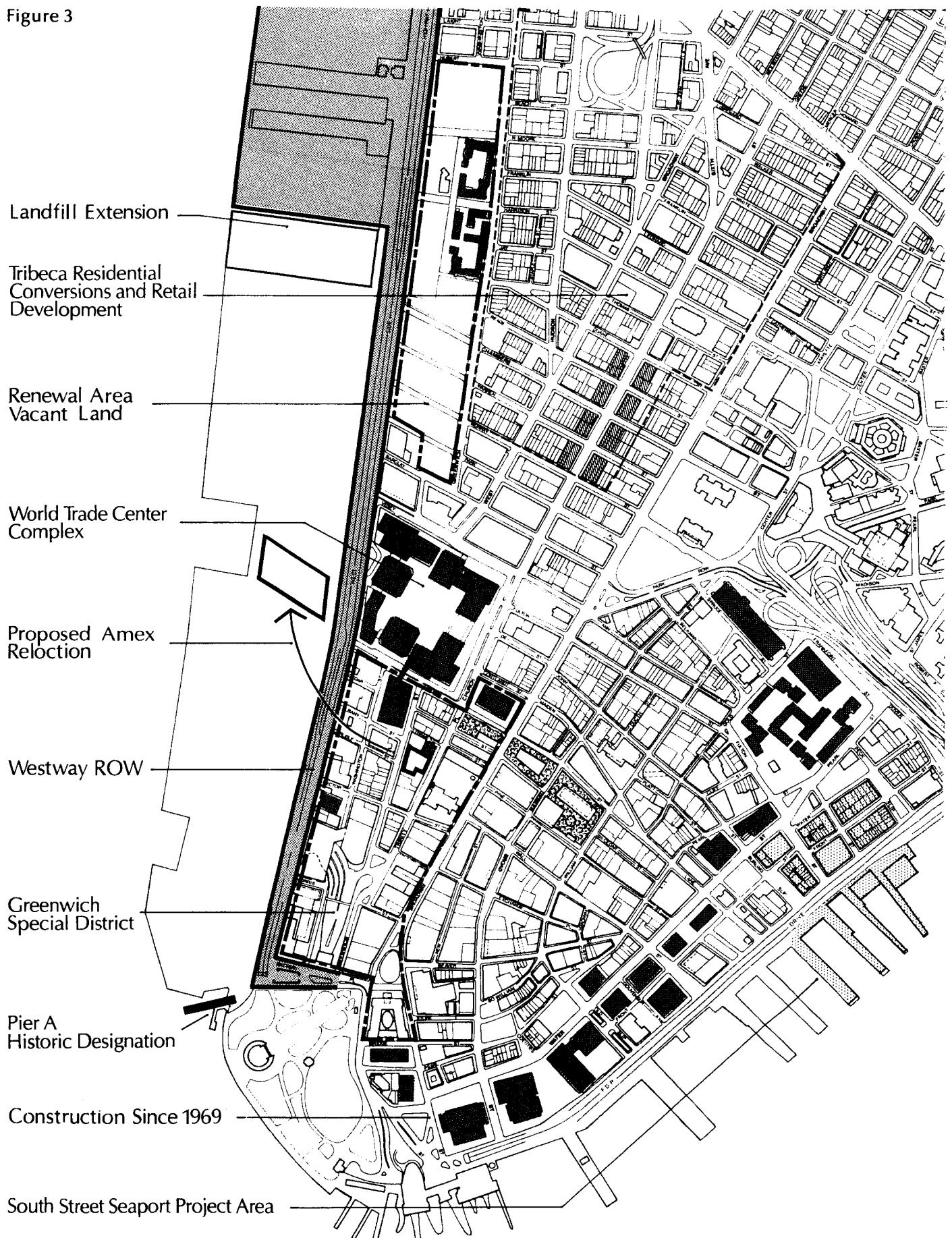
3.3 Developments In Lower Manhattan

Since the Master Plan was prepared in 1969, four important changes in Lower Manhattan have occurred: The near-completion and successful leasing of the World Trade Center; the creation of a new residential community in converted loft buildings; the partial completion of the Washington Street Urban Renewal Project; and the closing of the West Side Highway. The first two of these changes have had a positive effect on the development potential of Battery Park City; the second two have had a less beneficial impact. In addition, a number of new projects are beginning to emerge, including the planned retail complex at the South Street Seaport on the East River.

After a long lease-up period dating from December 1970, the World Trade Center has become a major force downtown. It is a new magnet for government administration, trading companies, international consulting firms, banking, retailing and transportation. Its 9.6 million square feet of offices house over 40,000 employees and host about 65,000 visitors on an average business day. The Center's restaurants and observatory have proven particularly attractive to tourists, and they have brought new life to Lower Manhattan after working hours. The PATH terminal under the Center has given the area a new gateway that is attractive and functional. It handles over 85,000 passengers on a typical workday.

Most important now that the Center has reached virtual full occupancy, development pressures for additional commercial office space should start to be felt in the Center's immediate surroundings. Proximity to the Center will be attractive to office tenants who have close dealings with the government agencies and the private companies tenanted there. Also, a location near the Center will allow the employees of firms to tap its

Figure 3



Changes Since 1969



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Battery Park City · 1979 Master Plan
Alexander Cooper Associates



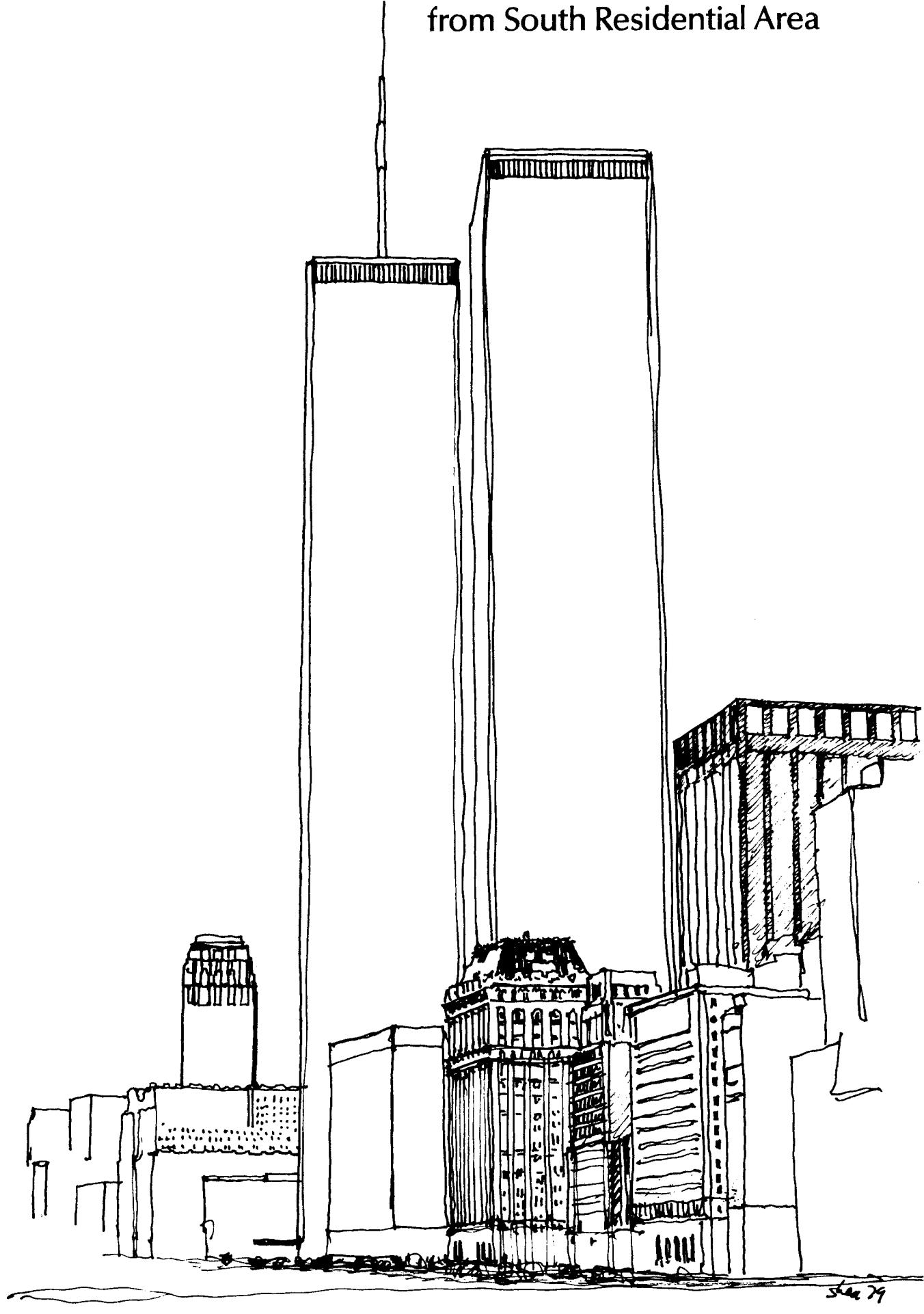
services and retail stores, and to have access to the subway facilities and the PATH terminal at the Center. These factors are shifting Lower Manhattan's development pressures westward, toward the Center and toward Battery Park City.

Battery Park City is uniquely ready to absorb these development pressures. It is an open building parcel, where developers can avoid any problem of site assembly or tenant relocations. There is only one other large site close to the Trade Center where this is true: The Washington Street Urban Renewal Project. But this site is north of the Center, where it is isolated from the Financial District and blocked from the Trade Center by its trucking entrance and utility plant. The land is the only sizeable vacant site immediately opposite the Trade Center; moreover, it is the only vacant development area scheduled to have a direct overhead walkway to the plaza of the Center. For these reasons, the project should be competitive for new office space, as development pressures build up around the Center. An important modification to the Master Plan will be the reorganization of land-use patterns so as to relocate commercial office uses on the area of the site closest to the Center.

The popularity of loft conversion in Lower Manhattan offers another planning opportunity that was not present in 1969. Most conversion is occurring in Tribeca, located northeast of Battery Park City. Its boundaries are Canal Street on the north, Broadway on the east, Greenwich Street on the west, and Park Place on the south. Tribeca is a mixture of 19th century lofts and newer industrial buildings that house a variety of wholesaling and manufacturing activities. As these activities contracted during the 1960's and early 1970's, loft dwellers from neighboring Soho began to convert the buildings into living spaces. This process was illegal until the City rezoned the area in 1976 for joint living/working accommodations. Tribeca was not restricted to artists like Soho; instead it was opened up to everyone interested in loft living. Within a short period, Tribeca has become the second largest neighborhood of loft conversions in the City; 224 loft units were counted there by the City Planning Commission in a 1977 survey.

In the last two years, professional developers have begun to convert buildings in compliance with the building code. This represents a new,

View towards World Trade Center
from South Residential Area



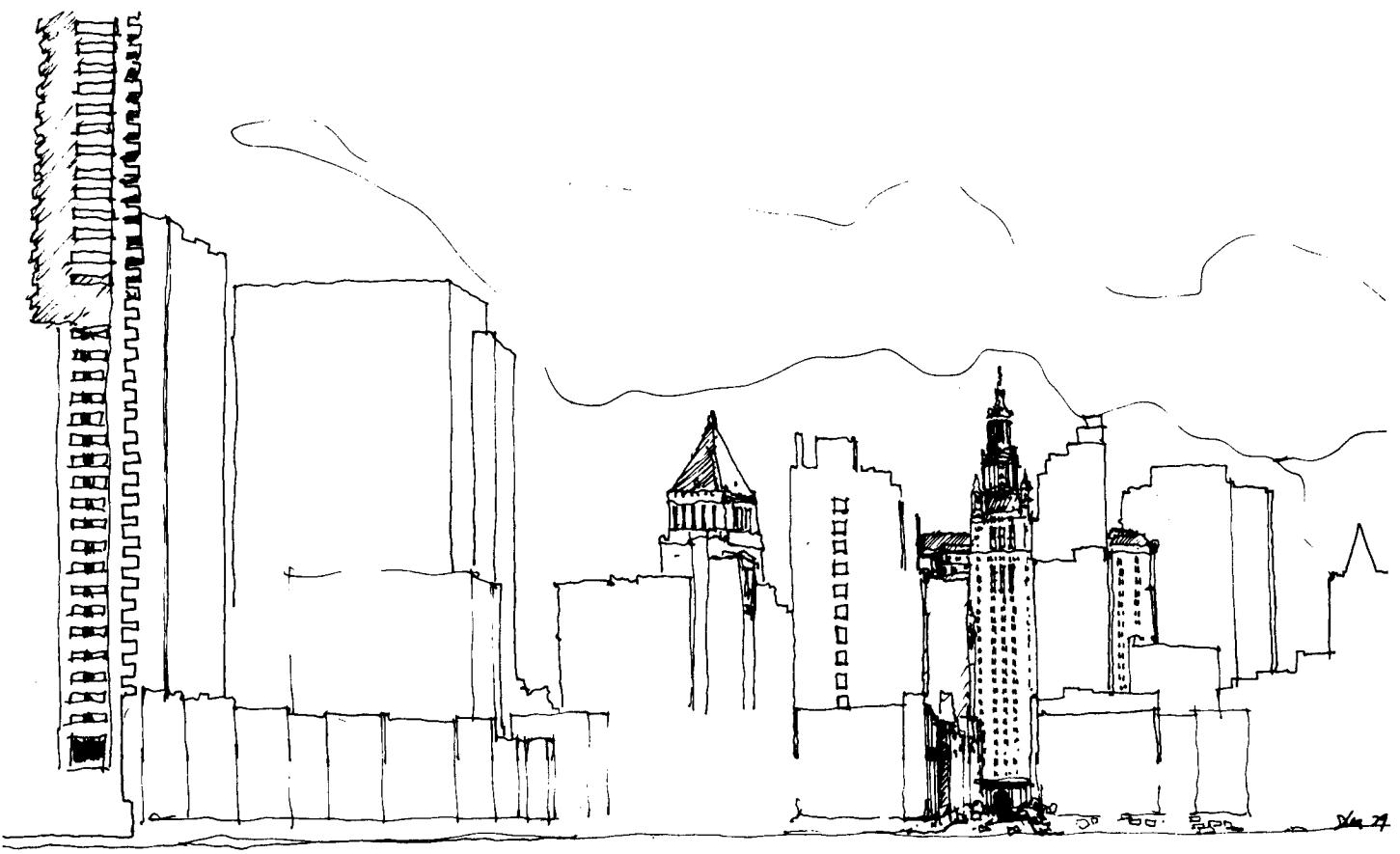
more advanced stage in the transformation of Tribeca to a residential neighborhood. Instead of offering tenants raw space, these developers are selling finished apartments on a co-operative basis. They are appealing to high-income people who cannot devote the time necessary to do their own conversion. Demand for these conversions is high, and is a demonstration of a new interest in living in Lower Manhattan by people with choice.

Loft living is spreading from Tribeca to the rest of the Financial District. A number of small, unmodernized office buildings have been converted recently east of Broadway; they, too, have received a strong market response. In July, 1979, the largest conversion thus far in Lower Manhattan was announced: A 33-story office building at 55 Liberty Street is being recycled by a developer into a 64-unit complex of finished lofts. Sales prices range from \$58,000 for a "simplex" unit to \$222,000 for a penthouse "triplex" unit.

The proliferation of loft conversions throughout Lower Manhattan is bringing a residential character to the area. Thus, the recommendations of the Lower Manhattan Plan are becoming a reality, although the form in which the recommendations are being carried out is not as envisioned. Instead of new buildings springing up on filled land or platforms around the rim of the area, a change in use is taking place in existing buildings on upland sites. There is some doubt whether the residential market in Lower Manhattan is strong enough to support construction of new, high-rise housing at market rentals on new land. Such housing without State support is still speculative, but the spontaneous emergence of a vital housing market where none existed before is a change that can only work in Battery Park City's favor.

The successful leasing of office space at the World Trade Center and of the encouraging trend toward residential conversion in Lower Manhattan needs to be balanced against the disappointing performance of the Independence Plaza project in the Washington Street Urban Renewal Project. It occupies a long, narrow site bounded by Greenwich Street, Hubert Street, West Street and Barclay Street. The southern section of the project is immediately adjacent to the northern quarter of Battery Park City, but it is cut off from the waterfront by West Street.

Chambers Street Visual Corridor



Initiated in the early 1960's, the purpose of this project was to remove the congested and antiquated cheese, butter and egg market from Lower Manhattan to the Bronx. The land was to be cleared, except for a few historic buildings, and then rebuilt as a mixture of new apartment houses, office towers and a campus for Manhattan Community College.

The plan for the project resembled the plan for Battery Park City. The buildings would rise from a deck at the same level as the World Trade Center Plaza. They would be connected to the Trade Center and Battery Park City by overhead walkways. The mixture of land uses was the same as Battery Park City, and so was the design treatment. The buildings would take the form of interconnected megastructures along a north/south circulation spine. Both public and private open space would be provided.

Timing worked against this project, as it did at Battery Park City. After a slow start, the project reached construction by the mid-1970's. The college and a large housing development called Independence Plaza began to rise side-by-side. The City's financial crisis in 1975, brought the college to a halt after it was about 20% completed, but the housing development was allowed to be finished. Three 40-story towers with low and medium rise buildings were completed with 1,332 rental units, plus nine partially restored townhouse units. The housing was aimed at the middle-income market. Developers and realtors watched rentals at Independence Plaza as a test of the market for middle-income units, since they were to form the preponderance of housing at Battery Park City.

Independence Plaza did not pass this test. Rentals lagged, and the financial viability of the project became imperiled. Since there was a government mortgage at stake, the City decided to salvage the project by applying Section 236 funds. This brought down rents to the moderate-income level. Once the market was broadened to include this level, the units filled up. But the use of moderate and low-income subsidies in this location was difficult from a city-wide prospective. The present City administration is determined not to allocate any further such subsidies to Lower Manhattan.

The failure of Independence Plaza as a middle-income project clouded the possibilities for such housing at Battery Park City. However, there

is reason to believe that the situation with regard to residential development in Lower Manhattan has changed significantly and will continue to change as we enter the 1980's. There is no doubt that Battery Park City can offer residential locations that are far superior to those in the Urban Renewal Project. A better test of the market will come when the first residential project in Battery Park City is ready for rental.

Failure to move forward with the Washington Street Urban Renewal Project is mirrored by the inability of the State and City to replace the now-closed West Side Highway. Progress toward achieving Westway has been slow. Despite the backing of all three levels of government, it remains unclear when construction can begin.

Westway's problems are yet another indication of the difficulty that government has in implementing large-scale projects. The continued inaction raises questions about government's effectiveness in bringing about other desired improvements in Lower Manhattan, all of which are in accordance with the 1966 plan for that area. Despite these problems, the consultants believe that a revised plan can show how to design Battery Park City so that it can function satisfactorily with or without Westway.

A positive development in Lower Manhattan that should improve the ability of Battery Park City to attract developers is the recent announcement of a 116,500 square foot shopping development at the South Street Seaport. The planned restoration and redevelopment of the seaport area will extend along the East River from Burling Slip to Peck Slip. A mixture of museums, retailing offices and residential uses will be used in historic buildings and new construction. A pedestrian precinct will be established in the place of the present streets so as to provide a pleasant retreat from the adjacent Financial District. It will create a tourist attraction on the East Side of Downtown that will complement the popularity of the World Trade Center's observatory deck, restaurants and shops on the West Side. The combination of the two projects will firmly establish Lower Manhattan as a regional tourist attraction. In so doing, it will further the Lower Manhattan Plan goal of turning the district into a 24-hour commercial and residential community.

The presence of a large number of high calibre shops at the Seaport suggests that Battery Park City's retail planning emphasize personal services,

convenience goods, restaurants and entertainment. This theme would mean a retail center that would build upon the strengths of the existing World Trade Center concourse and be located in such a way that pedestrian access between the two could be made simple.

3.4 A Rationale For Continued Public Support of Battery Park City

Although the changes that have occurred in Lower Manhattan over the last few years have resulted in both positive and negative impacts on the Battery Park City planning concept, on balance there appears to be no reason why the project should be abandoned. From a public policy view, there remains a strong planning rationale for developing the site with a mixture of commercial and residential uses. Its location on Lower Manhattan's waterfront presents as magnificent a development opportunity as it did in 1966, when it was conceived. Its closeness to the Financial District, its views of the harbor, its waterfront recreational potential, and its highway and mass transit access are still without equal. To delay development, as in a land banking program, would be to abandon a key element of the strategy to upgrade Lower Manhattan, predicated on the carrying out of the joint public and private sector development program agreed upon in 1966.

From a market point of view, too, the concept of a mixed-use development on the Battery Park City site continues to be valid. In city after city across the country, the successful downtown renewal projects of the past twenty years have demonstrated the importance on in-town living. Several downtowns have met this challenge successfully. Philadelphia has used urban renewal to strengthen its office space, to allow institutions to expand, and to rehabilitate adjacent residential neighborhoods, such as Society Hill. Baltimore has attracted large private investments in downtown office buildings by rebuilding its Charles Center and Inner Harbor areas, and by bracketing them with new and rehabilitated housing. Even downtown Los Angeles has followed suit by building a new convention center and high-rise luxury housing as a lure for new hotels and office buildings; the effectiveness of this strategy has resulted in a new skyline for the district.

Lower Manhattan can achieve similar gains. It has retained much of its attraction for financial, shipping and insurance headquarters. Rising rents in Midtown are bringing new tenants to the area's cheaper office

space, and a new hotel rising at the World Trade Center will be the first lodging to be created in the area in a century.

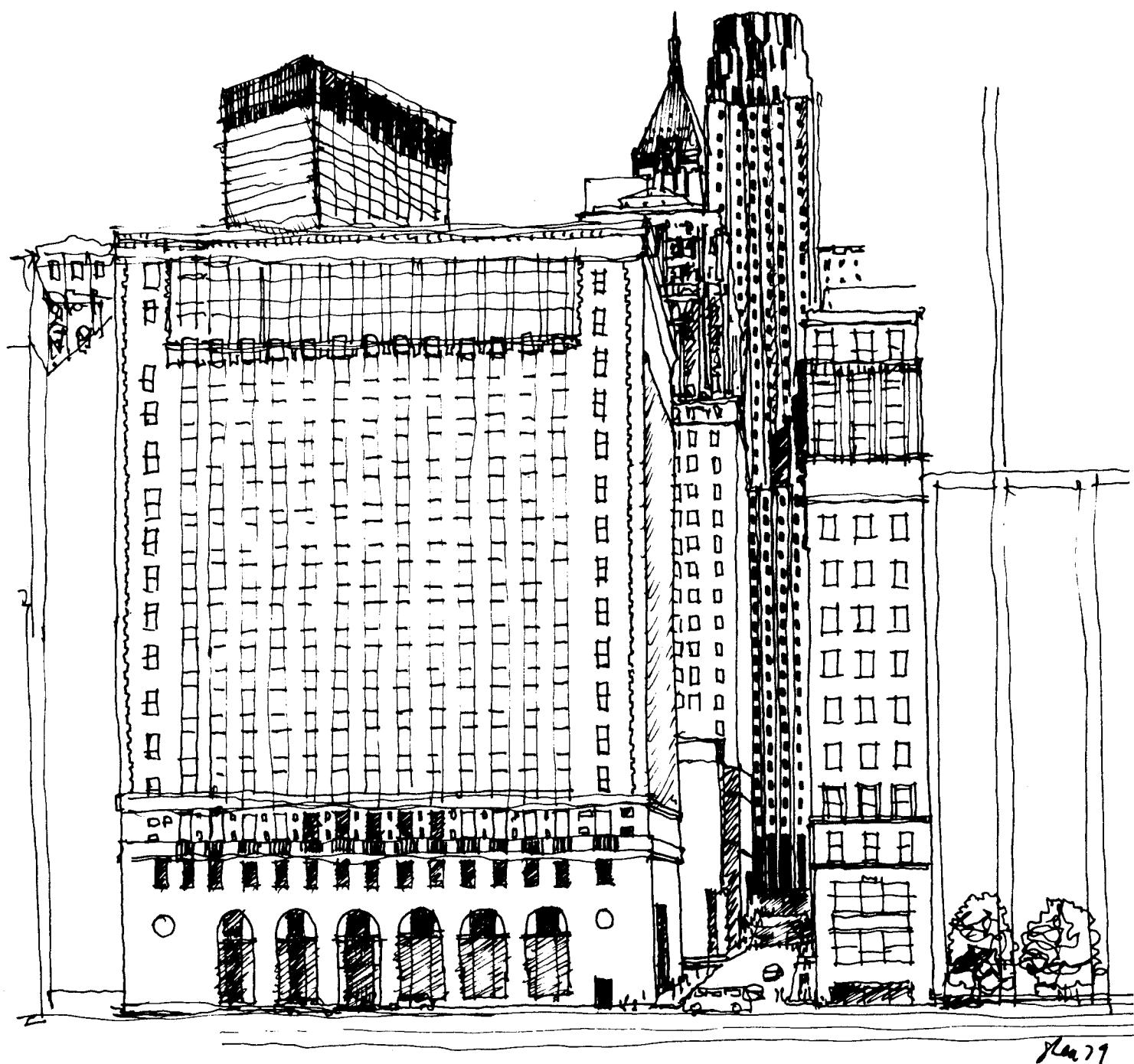
This vitality will be enhanced by building housing within close walking distance of the office core. For many, this convenience outweighs the higher rent and smaller space that in-town living requires. Today's energy concerns strengthen the desire to avoid long distance commuting. The Lower Manhattan Plan's emphasis on a rim of housing around the office district is more valid than ever. Battery Park City is the first step in carrying out this strategy, and its implementation should lead to expanded retailing downtown and additional office investment.

In addition, the agreement of the American Stock Exchange to build its new headquarters on the site is critical. It will place an important financial institution in a visible location at the middle of the site. The positive image and active trading activities associated with the exchange can help to attract other commercial tenants.

Finally, the amenities the project would bring to Lower Manhattan are perhaps the most important reason for continuing the project. The long-term benefits will make downtown a much more pleasant and stimulating place to work. The riverfront will be opened up for lunch-time strolls and after-work relaxing; in addition, the setting necessary for desirable in-town living will be created. Parks along the Hudson will be connected to a sequence of tree-lined walkways and smaller open spaces within the project area. All of these amenities will provide the sitting areas and open spaces that Lower Manhattan so conspicuously lacks today. To miss the opportunity to create these improvements might defer their achievement for another generation. The inability to achieve Battery Park City would not only be a great loss to today's working population, but it would inhibit investment in Lower Manhattan for many years to come.

To summarize, the examination of the changes that have occurred since 1969 in Lower Manhattan reveal that both the market and planning opportunities outweigh the problems holding back Battery Park City. A revised plan can address negative perceptions that are barriers to developer participation. It can also pursue a planning concept more in keeping with development realities than the current plan. This can be done without

Rector Street Visual Corridor



sacrificing the amenities that make the project desirable.

A new Master Plan alone cannot meet the project's cash flow problems over the next few years. Without additional assistance from the State, the Authority will not be able to carry out the necessary infrastructure improvements that will enhance the project's credibility. Calculations of the magnitude of this assistance have been made and are described later. The amounts needed are manageable. To miss this opportunity to attract developers would be to ignore unmistakable market improvements: Today's potential for office, residential and retail development is stronger than it has been for a decade.

Chapter 4

Public Policy, Development and Program Considerations



CHAPTER FOUR: PUBLIC POLICY, DEVELOPMENT AND PROGRAM CONSIDERATIONS

The revised Master Plan reflects the attention paid by three public policy priorities: The State's interest in accomplishing a satisfactory workout at Battery Park City, the City's desire to achieve a superior quality of public environment in the project, and the widely recognized need to reduce the complexity and cost of the project's infrastructure requirements.

4.1 A Quality Public Environment

While all parts of government are eager for the plan to attract development, there is also a strong desire that the resultant public environment be of superior quality. This concern grows out of an appreciation of the need for public amenities in Lower Manhattan.

The City administration is particularly eager to see the Lower Manhattan waterfront improved. Mayor Koch has announced his intention to make waterfront access and amenity throughout the City his most important planning program. Waterfront parks and marinas in Lower Manhattan would place usable amenities within walking distance of a worker population of 450,000 and a growing residential community.

The revised plan will be reviewed by the City Planning Commission. This scrutiny is welcomed by the consultants. High priority has been given to the development of an amenity package that is more accessible, more usable, more handsome, more comfortable, more safe, and more maintainable than that provided by the current plan.

4.2 Simplified Infrastructure Requirements

Battery Park City's presently proposed infrastructure system is much more complex than in conventional urban development. The Municipal Facilities Agreement between the City and the Authority specifies that the cost of this infrastructure will be borne initially by the Authority and then paid back by the City over time. The City payments could reach a maximum of \$10 million per year.

At present, all parties are attempting to minimize these expenses. City officials are concerned that infrastructure costs could become an onerous burden. They would like to see the project's infrastructure system simplified and its front-end costs reduced.

Revisions to the plan can help meet this goal by laying out development sites in a strategic manner, so that the initial phases of building construction can occur close to existing streets and utilities. Extensions can be made step by step as closer-in building lots fill up and long utility runs to distant points of the site can be avoided by staged development. To the maximum extent possible, these improvements should be located and phased to attract projects that can put Battery Park City on a firm financial footing.

If public resources are to be conserved, the revised plan must depart in some respects from the current plan. A much leaner plan is called for and the revised plan must propose a more functional and market sensitive land use distribution, a more flexible street system and a clearer and less idiosyncratic design image for the project.

4.3 Current and Projected Market Conditions

In the past ten years New York's office market has followed national trends. Thus it experienced rapid development in the late 1960's and early 1970's in order to meet the current demand. This led to excessive building on a speculative basis, in anticipation of future expected market needs. There was little construction in the mid-1970's as the extra space was absorbed and the economy slowed down. At the end of the last construction cycle in 1973 a total inventory of nearly 33 million square feet of space was available for rent in the midtown and downtown Manhattan. Since then little new space has been added to the market. The available space has been absorbed at an average annual rate of approximately 2.9 million square feet in midtown, and 900,000 square feet downtown.

There was a net addition to space in the downtown market between 1973 and 1975 as various firms moved out of New York, moved uptown, or reduced their space needs as a result of the economic recession.

The general lack of recent office construction had reduced midtown's supply of vacant space to an estimated 6.1 million sq. ft. by mid-1979, compared to a previous 12 month net reduction in availability of space of 4.2 million sq. ft. This inventory of space equates to approximately one and one half year to two year supply of space, if demand continues at the average level experienced in the past 3 years.

Downtown's inventory space has been reduced to 3.3 million sq. ft. of which approximately 1.0 million sq. ft. is in post-war buildings. A con-

tinuation of the demand experienced during the last few years would absorb this space in approximately one year.

In both the midtown and downtown markets, no major blocks of contiguous space are available, especially in prime buildings. In addition, available downtown office space in buildings built since 1970 amounts to only about 200,000 sq. ft. This is far less than the 1.3 million sq. ft. of quality space absorbed in the past 12 months downtown. Clearly, the office market in both areas of Manhattan is "tightening up". The well-publicized result in midtown has been a rapid escalation in rental rates from the "teens" to figures in excess of \$30 per sq. ft. in prime buildings. Such high rental rates have generated a building boom. The resultant construction during the next 18 to 36 months will increase midtown's total office space inventory by approximately 7 million sq. ft.

However, unlike the speculative developments of ten years ago, new office space can be financed only on a preleased basis. Consequently, additional construction is anticipated to meet future demand in the midtown market. It is not expected to produce a glut of speculative office space.

The apparently acute shortage of Class A space in the downtown market has not yet led to the construction of new buildings. It is estimated that downtown's existing and projected demand is for approximately 1 million to 1.5 million sq. ft. of space per year. This demand must be met primarily through new development. To date only one new project appears to be going ahead, the Continental Corporation building. This is a 900,000 sq. ft. project primarily for Continental's own use.

There are, however, a number of significant land assemblages available for development. The most important are listed in Table I.

Table I Downtown Office Sites Available For Development

Site Location	Potential Development <u>Millions/sq.ft.</u>	Sponsor/Tenant
60 Wall Street	1.7	American International Group
7 Hanover Street	0.8	Swig, Weiler/Arrow/Milstein
85 Broad Street	0.9	Galbreath-Ruffin Corp./ Goldman Sachs
Washington Market Urban Renewal Area	1.0	Irving Trust Company
S/E/C Broad Street and William Street	0.9	Lehman Bros.
45 Broadway	0.6 (Est.)	N/A

Source: Alexander Cooper Associates/Eastdil Realty Inc.

No action on these sites is to be expected until rent levels in downtown rise. Rental rates, even in prime locations, have not achieved the \$18 to \$20 per square foot level necessary to justify development by providing an adequate return to the developer. Total "hard" and "soft" construction costs, excluding land, now total approximately \$100 per square foot.

Rent levels are expected to rise to \$20 per sq. ft. in the next 12 to 24 months for prime locations. The total development potential for sites listed in Table II (including the Continental Corporation building) is estimated at 7 million sq. ft. Since a portion of these sites are in prime locations, they are likely to be developed in advance of sites at Battery Park City.

No significant development of commercial offices at Battery Park City can be expected until firm leasing arrangements at rents in excess of \$19 per sq. ft. can be achieved. Rents of this level should be available for projects in Battery Park City by 1983.

The projected absorption of commercial office space in Battery Park City (see Table II) takes account of competitive developments likely to occur on the sites noted earlier. Modest development targets are postulated for the initial years, when the majority of the projected demand will be absorbed by projects on these sites. As the inventory of these sites is used up, the importance of Battery Park City's commercial area will increase and the project will provide for an increasingly large amount of new development in Lower Manhattan.

Defining the demand for residential development is extremely difficult. There are no projects of comparable size and quality to those that are planned for Battery Park City. The only major residential project in the area -- Independence Plaza--was not successful although there are reasons to believe that the timing of this project was unfortunate. Recent loft and office building conversions demonstrate a significant growth of interest in the residential market in Lower Manhattan. Furthermore, demand for middle and upper income apartments is strong throughout Manhattan and there is no reason to believe that Battery Park City should not be able to attract a reasonable portion of the demand. Since the return to the Authority on rental residential development is considerably below that realized by commercial office projects modest residential absorption rates are of relatively less importance than the early development of the project's commercial center in achieving the financial stability for the authority.

Table II

PROJECTED DOWNTOWN OFFICE DEMAND*
 FIFTEEN YEAR ABSORPTION RATE
 (THOUSAND SQ. FT.)

Year	New Office Demand (Excluding BPC)	BPC Demand	Total Market Demand
1979	1,050	400	1,500
1980	1,100	250	1,400
1981	850	400	1,300
1982	750	400	1,200
1983	700	400	1,100
1984	600	400	1,000
1985	600	400	1,000
1986	600	400	1,000
1987	600	400	1,000
1988	600	400	1,000
1989	600	400	1,000
1990	600	400	1,000
1991	600	400	1,000
1992	600	400	1,000
1993	600	400	1,000
1994	850	150	1,000

* All "Demand" figures relate to the commitment for space by tenants or developers, with actual occupancy of newly developed space $1\frac{1}{2}$ to $2\frac{1}{2}$ years after the commitment period upon construction completion.

Source: Eastdil Realty, Inc.

In order to accelerate commercial development at Battery Park City, it will be necessary to find a method for making the commercial development economically attractive to developers who are to be the "first in".

Incentive must be offered to attract development in the early years when rents in Battery Park City will be low and/or at the margin of profitability.*

To stimulate normal development in 1981, the following financial incentives are recommended:

1. A special real estate tax abatement for the first 3 million sq. ft. of office space to be developed. This abatement would be equal to 75% of the full tax rate in the first year after completion; it would be reduced equally over a twenty year period.
2. A reduction in ground rent payments in the first year after construction completion, followed by equal increases in ground rent payments each year, until full payment is reached in the fourth year.

In a project of the size and scope of Battery Park City the initial development is often a "loss leader" when evaluated on an isolated basis. The concessions necessary to attract a credible first user are expected to be offset by more rapid acceptance and consequent development of the remaining sites. The lack of development at Battery Park City and the related stigma has made the initiation of commercial activity difficult to attain and has extended the total development period. The inactivity of the project has also had a broader detrimental effect on downtown and has reduced confidence in the area's future. Notwithstanding the need to provide incentives for an accelerated development program the potential for the critical commercial sector of Battery Park City appears to be present. The keys to the realization of this potential are:

- To capitalize on the significant changes occurring in the downtown commercial office market. Although these improvements are not expected to impact Battery Park City for approximately two years, they will provide for the successful development of the project in the long term.

* For further discussion of the need for incentives see Battery Park City 1979 Master Plan: Financial Analysis. Eastdil Realty, Inc. Table E.

- To redesign the current Master Development Plan to reflect current market preferences for office location. The primary change should be to relocate the commercial center from the southern portion of the site to a position opposite the World Trade Center, and
- To provide financial incentives that make the commercial sites more economically attractive during the initial development phase. Since the development of Battery Park City is to be on a phased basis, each project must stand on its own financially. Economic incentives will be critical to secure early developer participation.

4.4 The Development Program

The preliminary examination of the market for commercial development in Lower Manhattan indicates no reason at this time to recommend major changes in the current development program of 6 million sq. ft. of office space for the Battery Park City site.

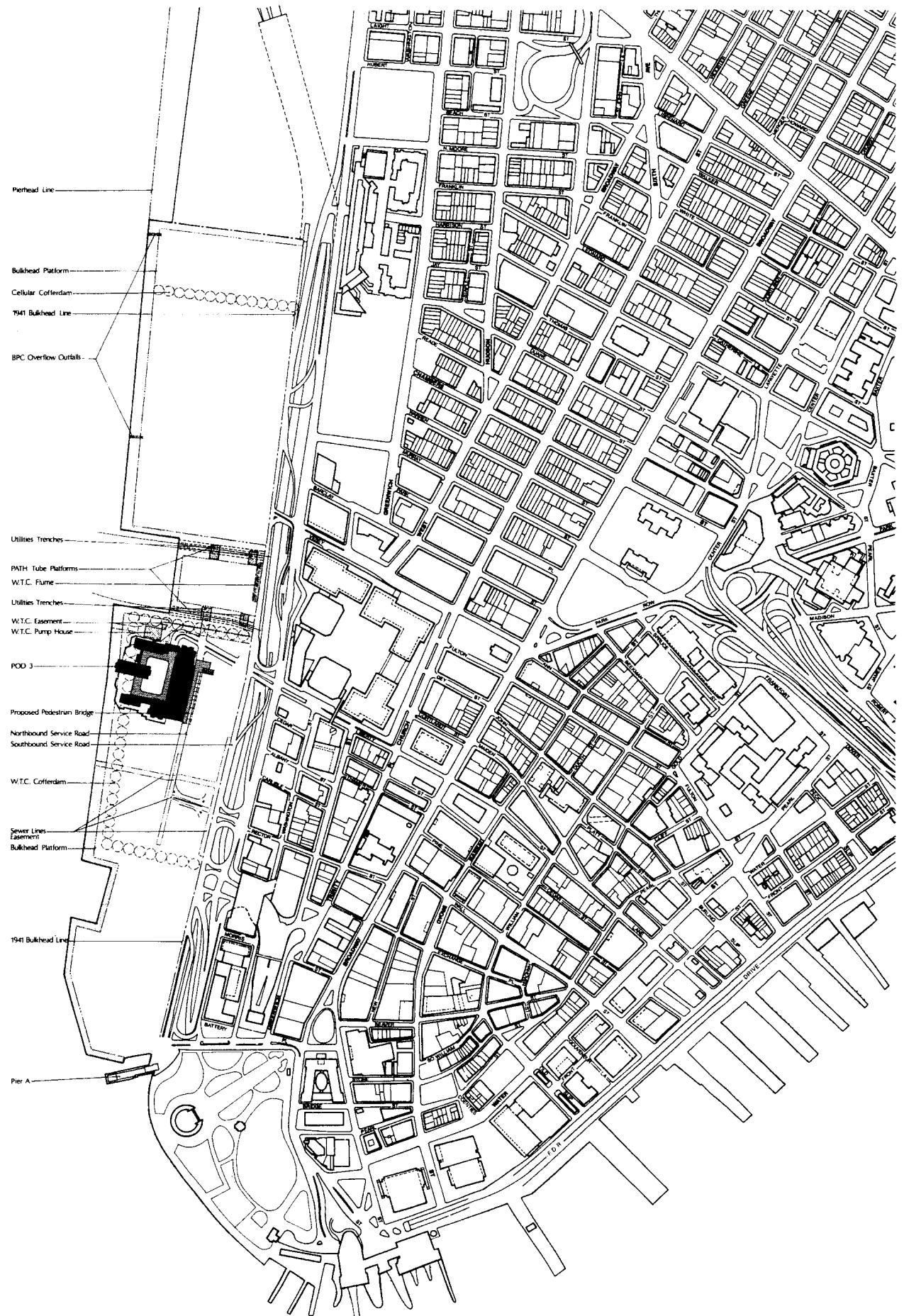
As noted earlier, the residential market is more difficult to analyze and the current program total of 16,000 units may be difficult to achieve. The City is presently reviewing its housing policy for Lower Manhattan and updated recommendations are expected to follow. However, for the purposes of developing the physical components of the revised plan -- roads, utilities and open space requirements, the consultants have assumed that a range of residential development from 12,000 to 16,000 may have to be accommodated.

A significant change has been made in the program for retail facilities. The current Master Plan makes provision for a major regional shopping facility at a location between Liberty and Rector Streets adjacent to West Street. The proposed facility has a projected floor space of 750,000 sq. ft. There is ancillary parking for 1,000 autos. The review of Lower Manhattan development trends does not suggest that such a scale of regional shopping facility would be successful in this location. In addition, it would pose severe environmental problems due to its high concentration of vehicles and parking. Accordingly, the revised plan will make provision for a much reduced convenience retail component of approximately 150,000 sq. ft.

4.5 Components Of The Current Plan Already In Place

There are a significant number of improvements already in place or planned that are based upon the current plan. These improvements and projects have, for the most part been taken as givens in the development of the revised plan.

Figure 4



Existing Conditions



Those improvements that are in place include utilities, some to serve the development and others to serve the World Trade Center, bulkheads and the final phase of a road contact adjacent to the site of POD III.

The residential development at POD III is the largest "given" on the site. The project has been designed and the foundations are in place. It's location does not conflict with the overall planning objectives of the revised plan. However, minor modifications to the design of the project may be necessary to adjust to the regimen of revised plan.

Pier A, which dates from the mid 19th century, is a landmark structure. Its retention was not part of the current plan. However, the City has requested that the structure be retained and that it be returned to its jurisdiction.

In addition to those improvements which are already in place, planning and design for the American Stock Exchange has reached an advanced stage. The location of the building has, in cooperation with the architects, been fixed. AMEX will become the first development in the new commercial center. It will be located on the extension of Liberty Street where it has excellent access to one of Lower Manhattan's most important streets.

The most important of these existing improvements are illustrated in Figure 4. In general, the opportunities created by the "givens" outweigh their constraints. No fundamental changes have been sought, but the consultants have reviewed each to insure that locational and design aspects of public concern can be accommodated within the revised plan.

Chapter 5

The 1979 Master Plan



CHAPTER FIVE: THE 1979 MASTER PLAN FOR BATTERY PARK CITY

The revised Master Plan takes as its theme an acceptance of all that is desirable about New York's basic pattern of development. Included are the City's system of streets and blocks, its prevalent building forms, its density, its mixed land use and its efficient transportation systems. The consultant's objective has been to refine and develop these familiar elements of the New York's environment and to adapt them to the unique opportunities presented by a magnificent waterfront site.

5.1 Principles Of The Revised Plan

Eight organizing principles define the revised plan. They deal with the overall planning approach, the layout and orientation of the plan, the form of the project, the quality of its neighborhoods, pedestrian circulation, waterfront amenities, special design opportunities, and flexible development controls.

PRINCIPLE ONE: Battery Park City should not be a self-contained new-town-in-town, but a part of Lower Manhattan.

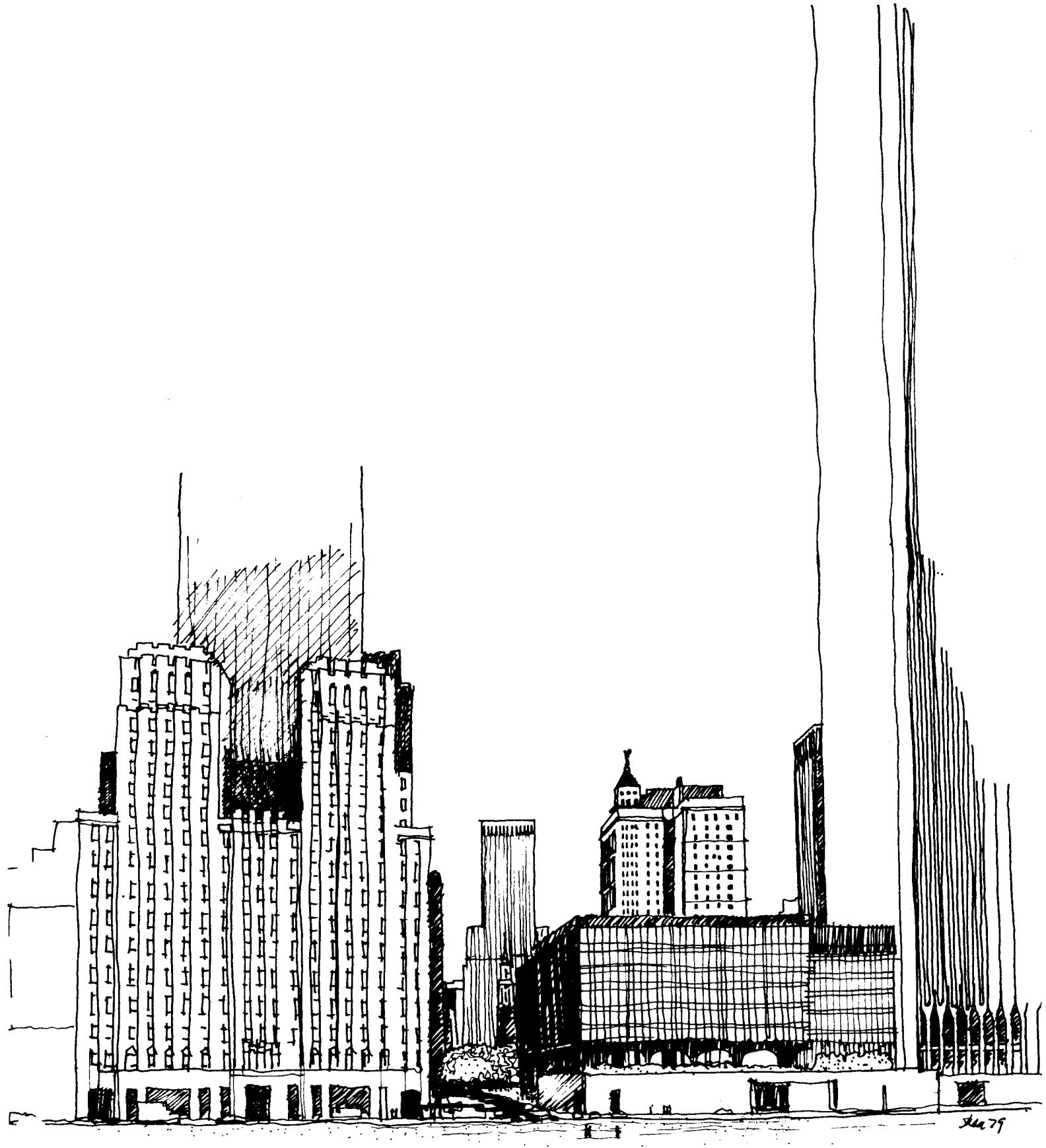
The revised plan recognizes the difficulties inherent in the new town-in-town approach to large scale urban development. The current plan follows this approach and lays out a series of superblocks with very little relation to the rest of Lower Manhattan. This arrangement contributes to a sense of separateness, which is considered to be neither a desirable nor realistic strategy.

The lessons learned from similar projects elsewhere suggest that Battery Park City should not turn its back on Lower Manhattan but instead respond to and build upon the strength and character of the adjacent neighborhoods. Lower Manhattan's assets are its office inventory, its subway services and its community facilities and services. The mixture of uses in the project's development program remains a firm basis upon which to proceed. The challenge is to find the proper layout, building forms, and amenities to express this potential.

PRINCIPLE TWO: The layout and orientation of Battery Park City should be an extension of Lower Manhattan's system of streets and blocks.

There are strong reasons for knitting Battery Park City into the existing grid system of Lower Manhattan. Street extensions can be very

Vesey Street Visual Corridor



important in helping the project to overcome a potential sense of isolation from the upland area. Utilizing a block system of development can set a structure for Battery Park City that will easily integrate its building forms with the adjacent area's existing development. Creating conventional building lots can reduce the hesitancy of the development community about the project. The normal rules of site development elsewhere in Manhattan should also apply at Battery Park City (Figure 5).

Bringing new development into a closer relationship with the upland area should also benefit Lower Manhattan. The financial core will be able to expand more readily onto the project's reservoir of vacant land. Residents of the project will be better able to support Lower Manhattan's growing range of shops and services. The waterfront amenities at Battery Park City will be more accessible to the employee and resident population of the entire area south of Canal Street. All three of these advantages will be supportive of the goals of the Lower Manhattan Plan.

PRINCIPLE THREE: Battery Park City should offer an active and varied set of waterfront amenities.

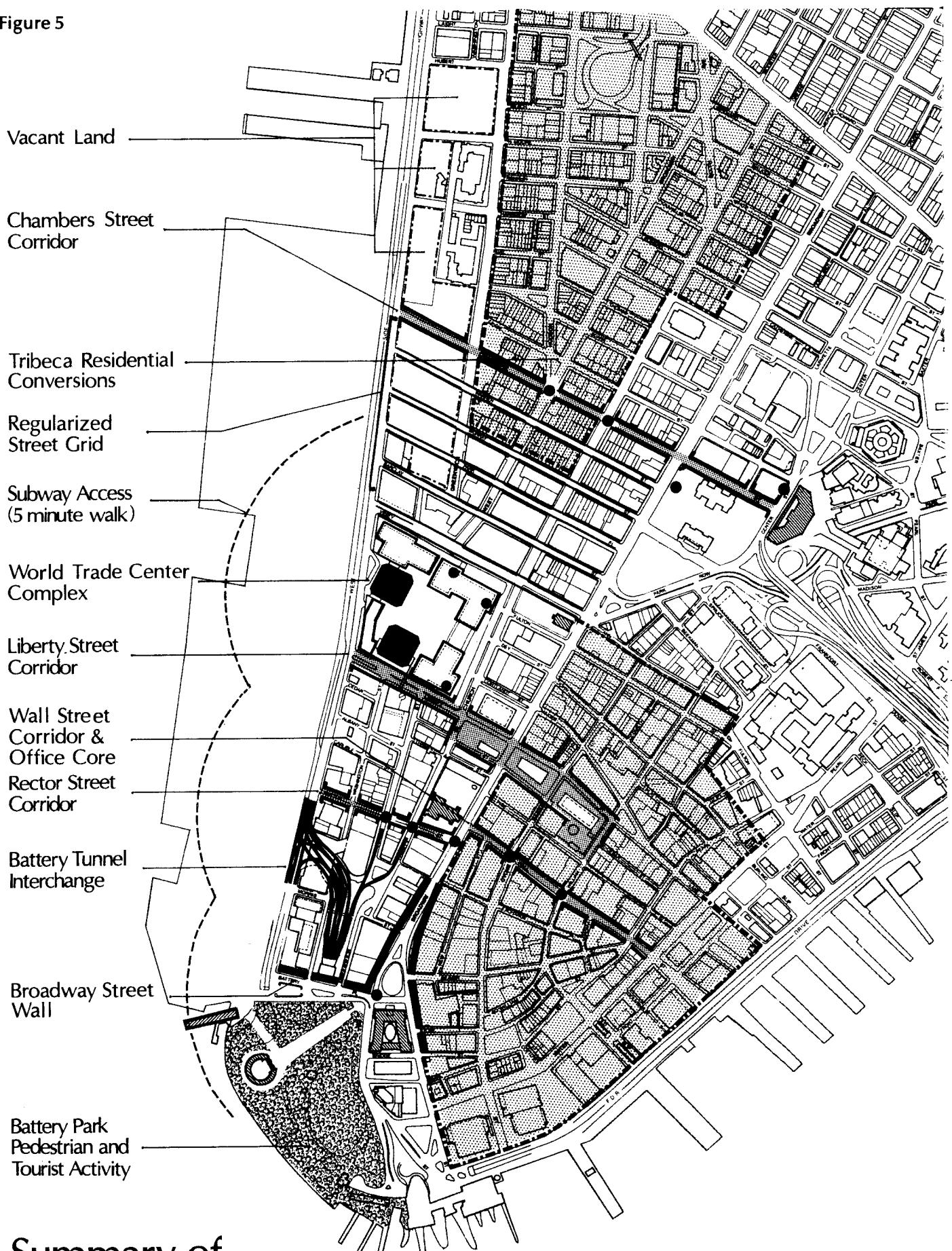
Opening up Lower Manhattan to the waterfront is a basic objective of the planning concept, just as it was of the 1969 plan for Battery Park City. The revised plan will recommend ways of improving the previous proposals for waterfront amenities so that they are more attractive, more useful, more accessible, and more safe.

A wide variety of spaces will be provided at the waterfront: Lunch-time sunning areas, an esplanade for strolling along the river's edge, large gathering places for public events, and small, quiet interior courts. The waterfront will have access to and from subway stations, with minimal contact with vehicular traffic. The concept will also give attention to maintenance and safety of the park spaces.

PRINCIPLE FOUR: The design of Battery Park City should take a less idiosyncratic, more recognizable, and more understandable form.

The current plan for Battery Park City proposes 200 acres of land uses on a 92-acre site. The technique for accomplishing this seemingly impossible feat is to stack several uses on top of each other, the upper deck being utilized for open space over streets and public facilities. Analysis of the project's planning program has shown that such a complicated decking scheme is expensive and unnecessarily complex.

Figure 5



Summary of Adjacent Conditions



0 200 400 600 800

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The revised plan proposes an alternative to decking. The design image we have aimed for is an adaptation of New York: Streets with sidewalks, along which buildings can be constructed by individual developers, large and small. Public amenities would be the main governmental contribution to environmental quality. Guidelines for building development would allow for the creation of special places within the framework of conventional streets and blocks. This is the physical form and institutional arrangement which is the easiest and most familiar way of constructing new neighborhoods in New York. We feel strongly that it can be adapted to bring high quality environmental design to the project (Figure 6).

PRINCIPLE FIVE: Circulation at Battery Park City should reemphasize the ground level.

Over the past 20 years, planning for large-scale projects the world over has emphasized the isolation of functions from one another and the vertical separation of pedestrian and vehicular traffic. It has become clear in recent years that this concept, thoughtlessly applied, has hampered the success of many new projects rather than enhancing market acceptance.

A more realistic concept would provide basic access at the ground level where it is most convenient. Only in the most congested areas are overhead or underground connections justified. They are most utilized where they lead to an important destination, like a shopping area or a transit station.

At Battery Park City the objective is to provide comfortable street level circulation within the site and at those places where the site meets the existing City. Street level crossings will be emphasized instead of underground or overhead walkways. Only where pedestrian flows are demonstrably heavy, as between the project and the World Trade Center Plaza and transit stations, will offgrade connections be recommended.

The revised plan balances pedestrian needs and vehicular requirements. As with the pedestrian routes, vehicular circulation will be mainly at the ground level. There is no general policy of vehicular restraint; rather, we have chosen to limit through-traffic by the layout of streets and access points into the project. Placing both vehicles and pedestrians

on the ground level will simplify circulation generally and will allow for pedestrian ease of access to busses, taxis, cars and deliveries.

PRINCIPLE SIX: Battery Park City should reproduce and improve upon what is best about New York's neighborhoods.

New York's finest neighborhoods are the product of incremental development over a long period of time. Their system of streets and blocks has been sufficiently adaptable to allow the replacement of obsolete buildings while maintaining and upgrading buildings of value. The neighborhoods of greatest desirability are often those of the most intensive mixture of land uses and building types such as Greenwich Village, Brooklyn Heights, and the Upper East Side.

The revised planning concept seeks to give Battery Park City a structure that will allow for similar growth and change, but in a more compressed time frame. The plan must suit the long-term construction of buildings, while also being capable of meeting the demands of an accelerated development program.

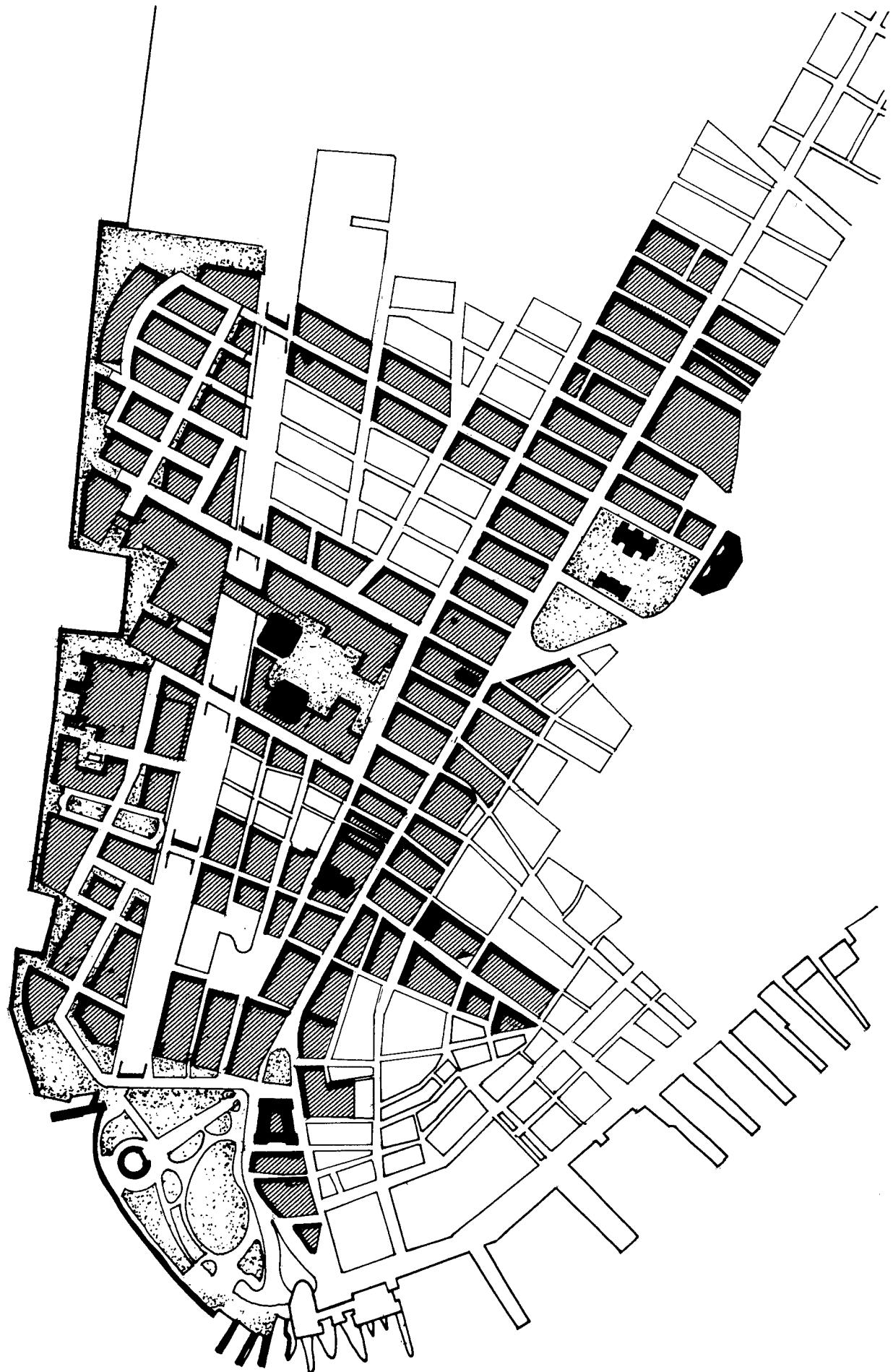
The object in the layout for Battery Park City will be to foster the sequential small scale spaces that give New York its special character from block to block. The plan will provide for the intimate texture of residential areas that are vital to the livability of the City.

PRINCIPLE SEVEN: Battery Park City's commercial center should become the central focus of the project.

Instead of being located at one end of the project site as in the current plan, the commercial center of Battery Park City should be re-located to the center of the site. In that location, it would be closer to major retail facilities and to the neighboring World Trade Center, and this juxtaposition can create a special type of community center able to compliment other Lower Manhattan sites and with locations in midtown.

The compactness, amenities, and level of integration of this center with the Trade Center should determine its ability to succeed. Because attaining these objectives is a planning and design issue, the layout and building arrangement of the commercial center is specified to a finer level of detail than any other part of the plan. This emphasis is warranted by the importance of the center to the overall ability of Battery Park City to move forward.

Figure 6



Design Principles



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PRINCIPLE EIGHT: Land use and development controls should be sufficiently flexible to allow adjustment to future market requirements.

The land use designations in the current Battery Park City plan were fixed by their location on the linear spine and within its decking system. Subsequent changes in land use are difficult to make, because the entire scheme was dependant on the successful completion of each piece.

The revised plan avoids the rigid character of the earlier plan. The street and block form of development allows land uses to be altered on certain sites if market requirements change--without constraining development on adjacent blocks.

These eight principles, when taken together, form a statement of the planning concept for Battery Park City. They are not in themselves a complete master plan, but they set its basic structure. As such, they constitute the initial stage of the master planning process.

Twelve weeks has not allowed the formulation of a complete master plan to the extent of detailing the location of future community facilities, specific densities for all building lots and estimates of the future employee and resident population block by block. These determinations must await the next stage of planning.

The description which follows shows how the eight principles have been integrated into a plan. The overall pattern of land use is described, the street and block layout is explained, land use allocations are listed, the transportation systems outlined, the open space diagrammed and special places in the plan are illustrated.

5.2 Revised Land Use Concept

The area west of the World Trade Center is the heart of the project (See Figure 7). It can house all of the project's five to six million square feet of office space as well as most of its retail space. With its linkage to the World Trade Center Plaza, this Commercial Center will relate to the Financial District and to Battery Park City's residential neighborhoods to the north and south. The edges of the commercial center are defined by two visual corridors. They are the rights-of-way of Liberty and Vesey Streets, which also form the southern and northern borders of the Trade Center. Each of them will protect the views of the water from upland areas.

Figure 7

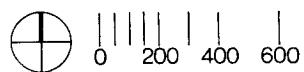
North Area:
Residential

Central Area:
Commercial

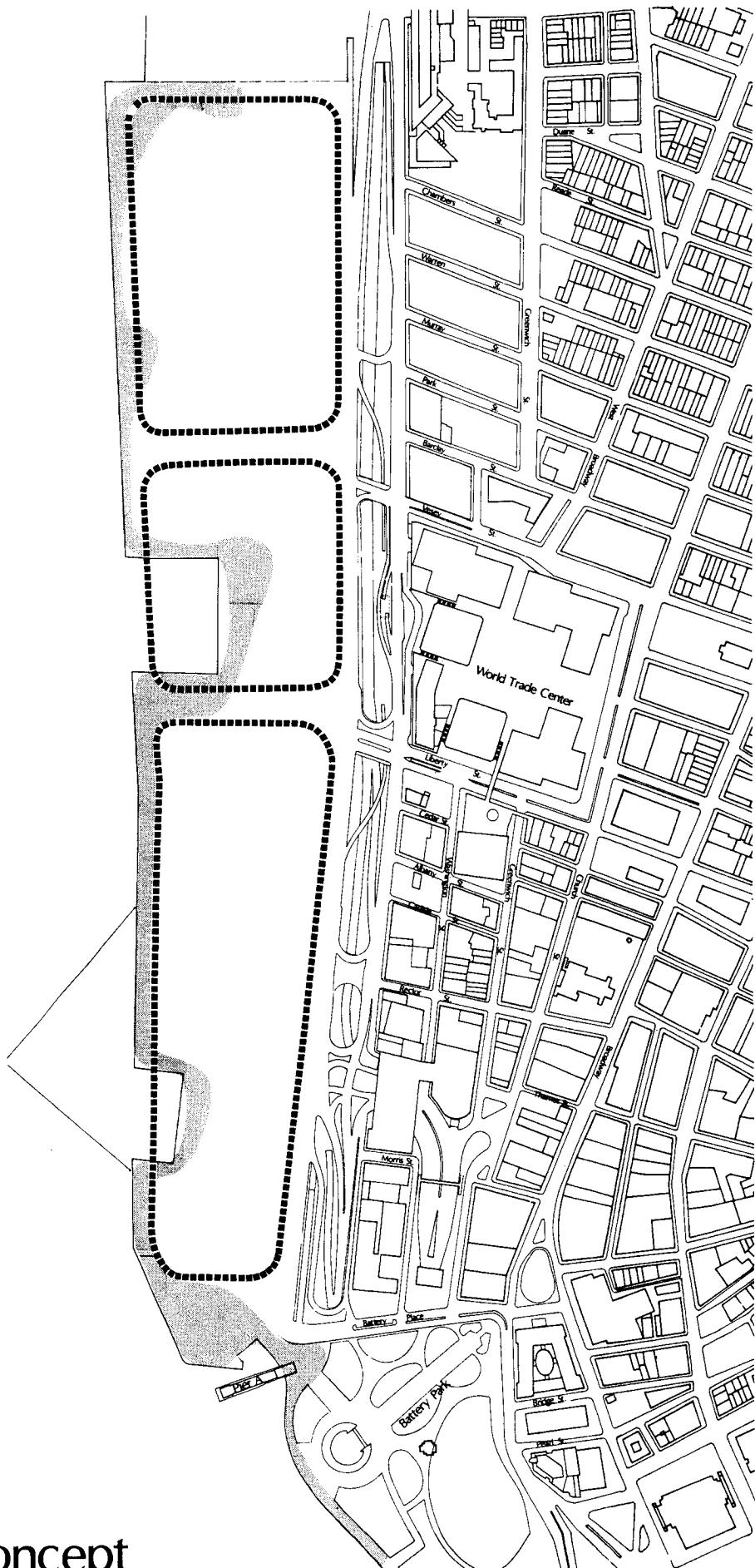
South Area:
Residential

Waterfront
Open Space

Land Use Concept



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These two areas adjoining Battery Park City on either side of the World Trade Center are strongly contrasted in character. To the south, the site is bounded by a transitional office area; to the north is the changing area of Tribeca and the Washington Market Urban Renewal Project. These differences present constraints and opportunities for the development of Battery Park City. Residential development south of the project's Commercial Center can be planned and marketed to cater to employees of the Financial District who want close walking access to their jobs. Most households will be small and densities can be high. Since there is no established adjacent residential neighborhood services and facilities to support this area can be orientated to these groups.

The existence of the Tribeca community and the Urban Renewal Project north of the Commercial Center calls for more a complementary neighborhood within Battery Park City. Consequently, buildings will be lower and public spaces more generous. Households can be expected to be larger than in the southern neighborhood. Services for this area will be different in character and the potential exists for integration with the retail and personal service facilities already developing within the Tribeca community.

The waterfront is treated conceptually as the fourth major land use in the diagram. There are large spaces at the north and south ends of the project and a major public plaza will be the focus of activities at the Commercial Center.

5.3 Streets and Blocks

By choosing to organize the revised plan around a system of streets and blocks, the revised plan returns to the historic grid pattern of development that has served Manhattan since 1811. It has proven to be highly adaptable. At Battery Park City, utilization of a street grid will assist in establishing physical, visual and functional integration with the adjacent neighborhoods. Some streets will continue directly into the site and will provide direct access to nearby subway stations at Chambers, Liberty, and Rector Streets, as well as at Battery Place (See Figure 8).

The average block size follows the 200' x 400' size that is standard in New York. Over the years, this block dimension has suited buildings ranging in size from small brownstones to large mixed-use projects covering entire blocks. Studies of modern building sizes show that this dimension would adequately serve a wide range of residential and commercial structures. Furthermore, the block size would make possible a parceling of development sites that serve small and large developers alike and broaden the range of developers able to participate in the building of Battery Park City.

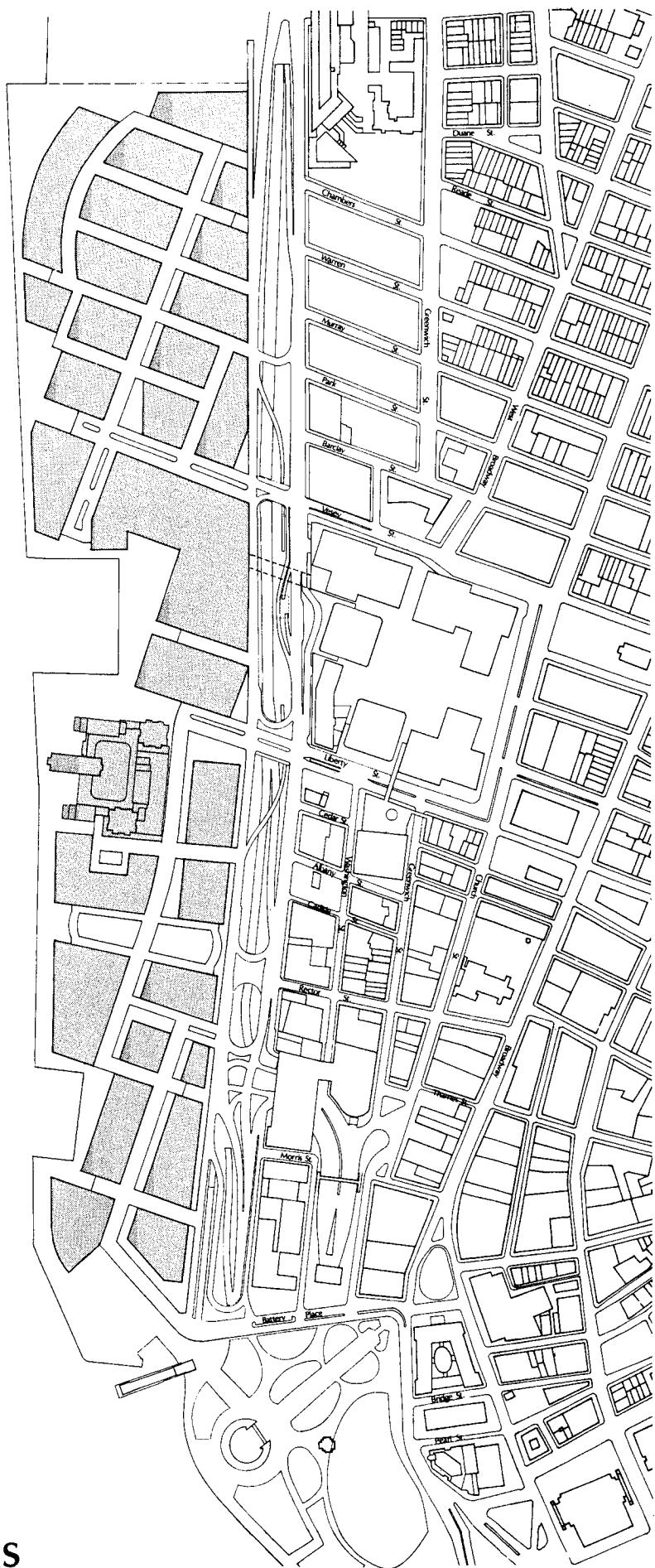
Three types of streets will carry traffic and pedestrians and organize development in the project. The principal streets will be two north/south avenues which serve the northern and southern residential neighborhoods. Each of these avenues will be the main focus of activity. They will be both prestigious residential "addresses" and the center of neighborhood shopping, community facilities and entertainment. Each avenue will have a 100' right of way; 40' of this right of way will be a linear park with landscaping and benches. Traffic will be one way and restricted to a 36 foot roadway. The side streets branching off the avenues will serve the adjacent buildings and penetrate to the waterfront. These streets will be landscaped and specially treated at locations where they join the waterfront esplanade.

In addition, there will be private service streets which will function like driveways, serving only a few properties. Typically, they will be short, stub-ended streets connecting the avenues with interior development parcels. Traffic flows on such streets are expected to be light. Although they will be privately constructed and maintained, the streets will have public pedestrian rights of way.

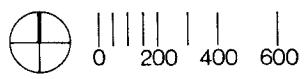
The streets in the Commercial Center could also be private, but for a different reason: They would be built to special design standards and may be restricted to certain classes of traffic.

As can be seen on the street and block plan (Figure 8), the orientation of the street grid is an extension of the grid that intersects with Broadway and is rotated to focus on harbor views. This orientation will greatly enhance the visual quality of the main avenues and provide unparalleled views from the streets and the buildings. The

Figure 8



Streets and Blocks



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secondary streets of the grid system will benefit from this orientation too. All of them, with the exception of a special area in the northern neighborhood, will have views to the water.

The orientation of the streets and the provision of arcades will protect pedestrians from winter winds while permitting summer breezes from the south to circulate along the avenues.

The street and block system serves numerous purposes simultaneously. It sets the structure for a flexible parcelling system, it builds in amenities and activities at the street level, and it furnishes the linkages to upland areas that will help make the neighborhoods of Battery Park City organic extensions of Lower Manhattan.

5.4 Land Use Allocation

The proposed distribution of land uses throughout the site emphasizes residential neighborhoods and public open space (See Figure 9). The residential neighborhoods account for approximately 42% of the total area and public open space for 30% (See Table III). The residential neighborhoods will offer a wide range of development opportunities. The main avenues will provide sites for larger scale buildings. A zoning overlay will allow the development of retail and commercial facilities at street level along the avenue frontages. Community facilities will be distributed throughout the areas as the need emerges.

The Commercial Center is located between the Liberty and Vesey Street corridors. Within that area the main bulk of the 6 million square feet of commercial development will be accommodated. Another 150,000 square feet of retail/entertainment development will be placed in the center related to the major pedestrian movements.

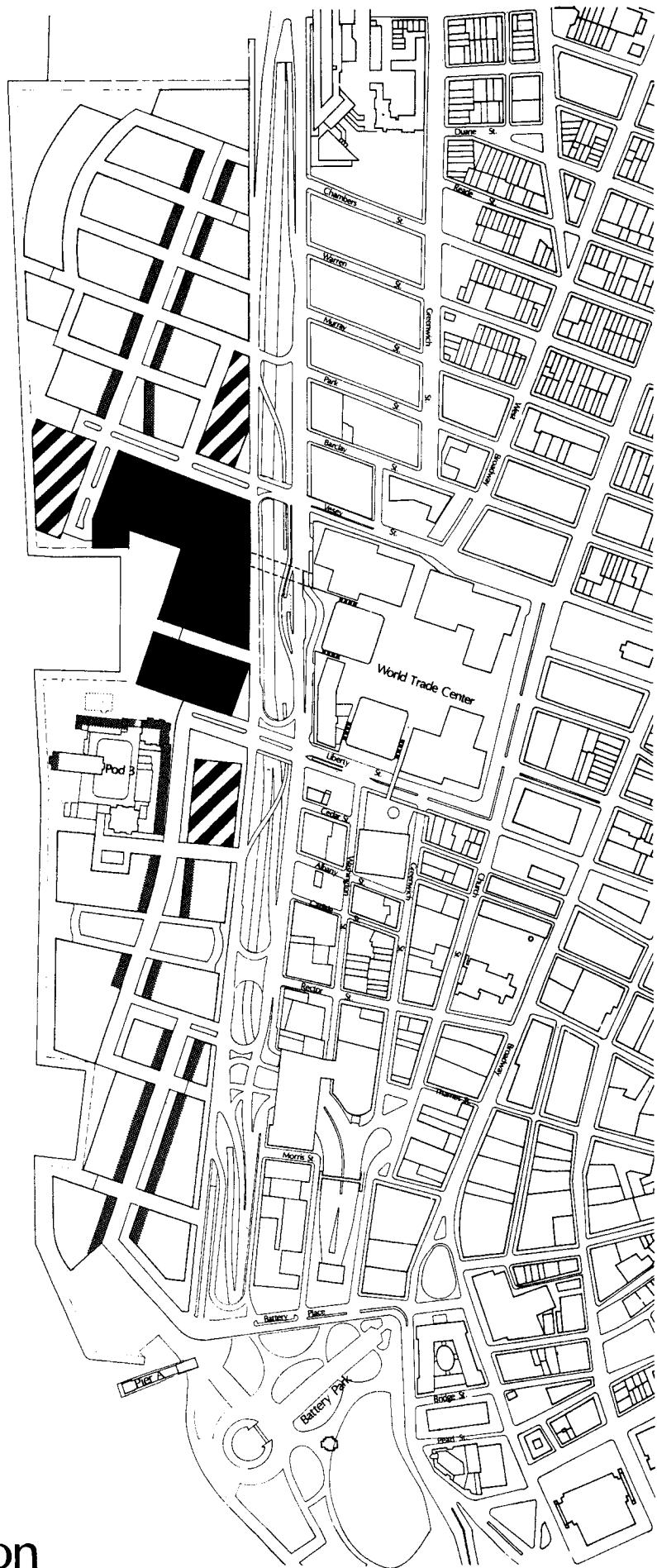
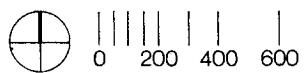
Although the entire 6 million square feet can be accommodated within the Commercial Center, the potential exists for locating some of it on the blocks immediately to the north and south of the Commercial Center adjacent to West Street. Furthermore, the waterfront blocks within the Commercial Center south of Vesey Street have the potential for outstanding hotel/residential developments.

Figure 9

Residential
Permitted Retail Center
Commercial/Retail Center
Potential Commercial or
Residential Sites



Land Use Allocation



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Table III

LAND USE ALLOCATION

Land Use	Acres	% Of Total Average
1.1 Residential Land*	38.1	42%
1.2 Commercial Land	8.7	9%
1.3 Public Open Space	28.0	30%
(Esplanade)	(6.1)	
(Park/Plaza)	(21.9)	
1.4 Streets	17.8	19%
Total Master Plan	92.6	100%

* Residential Land includes 50% allowance for private open space.

Source: Alexander Cooper Associates

Finally, mixed use developments (residential/hotel/retail) are desirable possibilities for locations adjacent to the Commercial Center or to the major open spaces. No special land use category has been shown here but it is recommended that the mixed use proposals be considered favorably in appropriate locations.

It would be unrealistic to set residential density targets at this time. Such targets would build inflexibility into the plan. Instead, the plan postulates the density range necessary to meet the general magnitude of housing units called for in the original planning program. The range is from a low of F.A.R. 9 to a high of F.A.R. 12.

Ultimately the resolution of development density in Battery Park City's neighborhoods will depend upon balancing the Authority's financial needs with the City's housing policies. The next stage of the planning process will require such a resolution. The proposed plan provides for a range in the northern neighborhood of 5,900 units to 7,700 units. South of the Commercial Center, next to the Financial District, 6,500 and 8,500 units can be accommodated.

The next stage of planning will also address the need for community facilities in these neighborhoods. Requirements will depend on the magnitude and demographic characteristics of the eventual population to be served. The street and block system allows for considerable flexibility in the choice of sites for future community facilities. Therefore, it is not necessary now to specify the number and location of such facilities. They can be located later within each neighborhood as the need emerges without significantly narrowing development opportunities for residential buildings.

5.5 Vehicular Circulation

Concentration of the bulk of Battery Park City's commercial office sites in one central location benefits both pedestrian and vehicular circulation. The provisions for both are far superior to those in the current plan. As can be seen from Tables IV-VI, by far the majority of person and vehicle trips are generated by the Commercial Center.

Table IV 1979 Master Plan Projected Person Trips

Zone	Round-trips Per Day
Commercial Center	
Employee trips	40,000
Visitor trips	48,000
Residential Zones	
Work trips	16,800
School trips	9,600
Social/Shopping	32,000
Civic facilities (Employees)	3,375
Local retail (Employees)	400
Visitor trips	8,000
Total Daily Trips	158,175

Source: Vollmer Associates

Table V 1979 Master Plan Modal Split - Commercial Center

Mode	Employers	Visitors
Walk	2%	4%
Subway/Ferry/PATH	92%	78%
Bus	2%	3%
Auto	3%	5%
Taxi	1%	10%
	100%	100%

Source: Vollmer Associates

Table VI

Projected Peak Hour Traffic

Zone	Daily Traffic With Origin Or Destination Outside Of Battery Park City	
Residential Zones		
Residents		
Work Trips	1,180	Autos and taxis
School Trips	30	Buses
Social, Shopping, Etc.	2,570	Autos and taxis
Civil Facilities	220	Autos and taxis
Neighborhood Shopping		
Work Trips	20	Autos and taxis
Deliveries	200	Trucks
Visitors	<u>1,080</u>	Autos and taxis
Sub-Total	5,300	
Commercial Center		
Employees	2,520	Autos and taxis
Visitors	11,200	Autos and taxis
Deliveries	<u>640</u>	Trucks
Sub-Total	14,360	
Total	19,600	Vehicles Per Day

Source: Vollmer Associates

Locating the Commercial Center opposite the World Trade Center provides for much improved access to the Lower Manhattan subway systems. Access to the subway stations and PATH in the World Trade Center is of the upmost importance since it is estimated that 92% of all work trips will be made by public transportation.*

Vehicular circulation is also improved by the relocation of the commercial zone. The auto, taxi, and delivery trips to the Commercial Center can be better distributed from the new location onto Westway, onto West Street, and onto the main crosstown streets, Vesey and Liberty.

The street system of the revised plan is organized as a series of loops, each of which serves a specific part of the site (See Figure 10). The loops utilize the grid of streets, but through the use of one way streets they avoid creating conditions that would encourage vehicular traffic to pass through the residential neighborhoods.

The Commercial Center is served from the perimeter by high capacity streets--Vesey, West, and Liberty. All proposed development parcels have both lobby and service access from the streets. In addition, each parcel has the capacity to accommodate up to 100 on-site parking spaces. All buildings in the center will be serviced via internal loading docks.

In the residential neighborhoods vehicular traffic is not expected to be heavy. Consequently, the layout of the main circulation system shows all buildings fronting onto a public street for access. Servicing buildings and access to parking may be achieved from service courts.

Traffic analysis of the proposed system indicates that a number of minor modifications to the present design of intersections between Battery Park City streets and proposed West Street as shown in the Westway Plan are required. These modifications can be accomplished without negative impacts on the operation of proposed West Street and Westway.

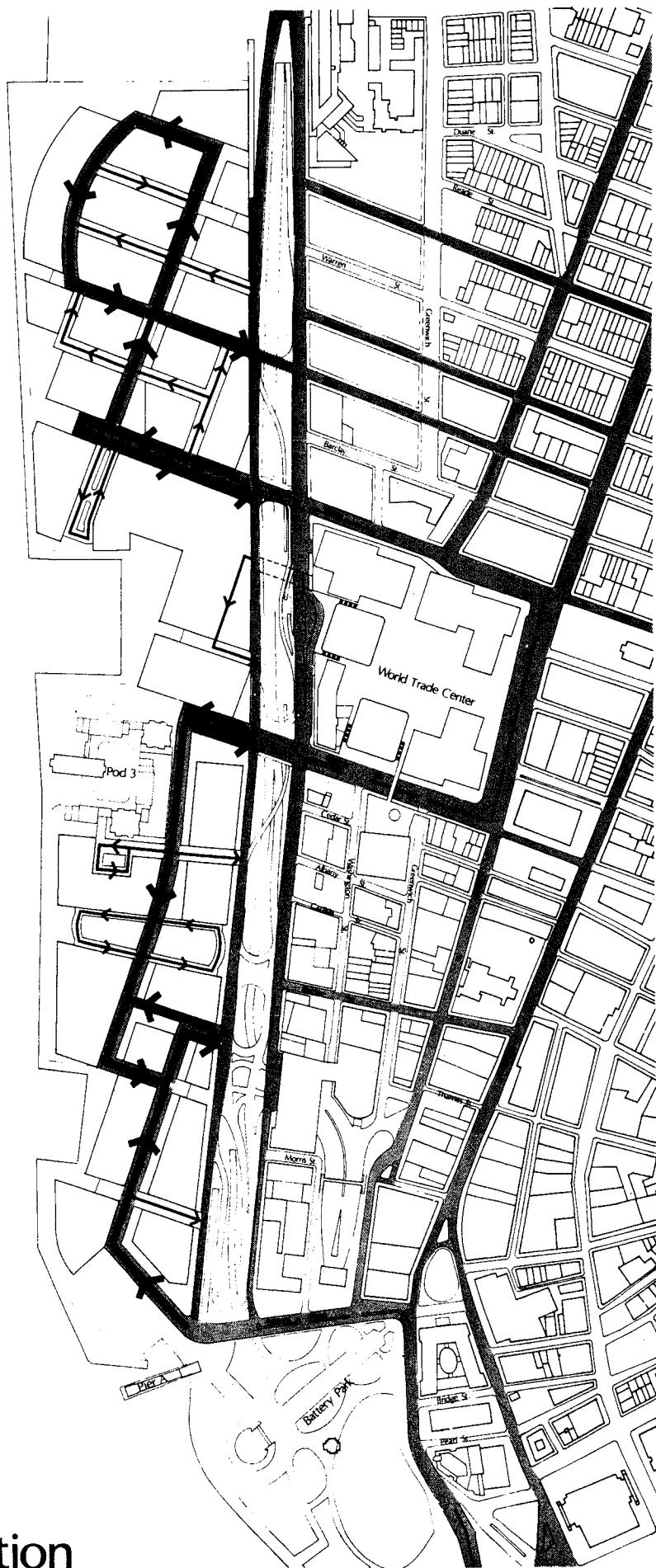
* A preliminary analysis of travel and traffic characteristics of the proposed plan has been carried out as part of this study. See Battery Park 1979 Master Plan: Traffic and Engineering Analysis, Vollmer Associates.

Figure 10

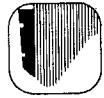
Primary Circulation
Secondary Circulation



Vehicular Circulation



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Traffic analysis has also been performed on the proposed system and the interim design for West Street (i.e. the conditions resulting from the demolition of the existing West Side Highway but before Westway is constructed). The proposed system operates satisfactorily under these conditions.

Finally the main vehicular circulation system has been designed to accommodate city bus services, and it is recommended that existing routes be extended into the site.

5.6 Pedestrian Circulation

Pedestrian circulation systems (see Figure 11) have a number of different functions and characteristics.

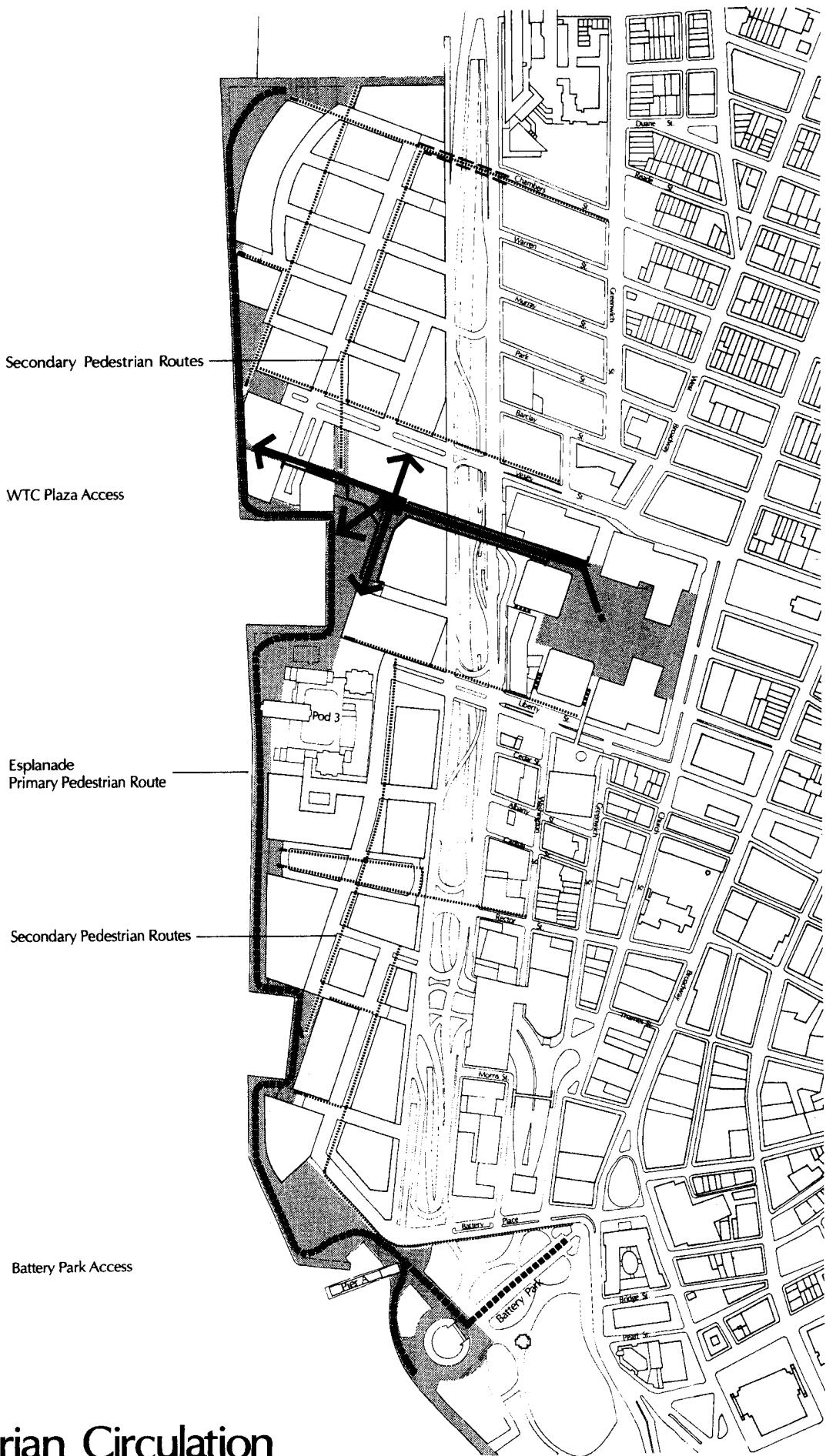
The major pedestrian movements in terms of volume will be those generated by the Commercial Center employees crossing onto the World Trade Center Plaza to gain access to the subway and PATH stations. The estimated evening peak hour flow is projected to be 34,270 per hour. This level of pedestrian movement justifies the provision of a major elevated pedestrian link in order to cross West Street and Westway. The volume of pedestrian movement also justifies the provision, within the Commercial Center, of an elevated pedestrian circulation system. This system would link the pedestrian bridge to the World Trade Center with the lobbies of all major building. The elevation of the system would be at approximately +32 feet.

Elsewhere in Battery Park City the projected pedestrian flows will be less and the provision of elevated pedestrian circulation systems are not warranted except where crossing of Westway cannot be easily accomplished at-grade.

Much lighter pedestrian movements will occur within the neighborhoods. Shopping, school, and social pedestrian trips will be handled primarily on the main avenues where two different design features are provided. The avenues have on one side an all weather arcade and on the other, a 40 foot wide linear park, thus providing for both winter and summer movements.

The third set of pedestrian movements are those that are related to the waterfront, the esplanade and parks. These movements are generally

Figure 11



Pedestrian Circulation



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for recreation purposes and include both north/south movements along the waterfront and movements through Battery Park City along east/west streets.

5.7 Parking

Parking at Battery Park City should be more simply provided for than in the current project plan. It is recommended that each project provide for its own parking. This would follow present practice in New York City. Each building parcel should be subject to parking requirements that reflect its nearness to main highways, its access to mass transit, the number of households to be housed there, the income mix, and other criteria.

Parking standards, as evolved during the next stage of planning, should also be consistent with proposed regulations limiting parking as part of the Air Quality Control Plan for New York City. The effect of these regulations may be to reduce the number of spaces to be provided in Battery Park City.

5.8 Open Space

The most treasured public resource in high-density Manhattan is its open space. The revised Battery Park City Plan has given absolute priority to preserving most of the project site as open space. The Hudson River waterfront is Lower Manhattan's greatest potential recreational amenity. This plan shows how that potential can be turned into reality. The proposed open space plan is shown in Figure 12.

Virtually 70% (65 acres) of the site has been allocated to open space. This is more than was provided for in the earlier plan.

The following Table shows the breakdown of space devoted to public recreation, and public rights of way.

Type	Acres	Percent of Total Site
Public Open Space	28.0	30.2%
Private Open Space (Assuming building coverage of 50%)	19.0	20.5%
Public Rights of Way	17.8	19.2%
TOTAL OPEN SPACE	64.8	69.9%

Source: Alexander Cooper Associates

Parks, esplanades, and other types of public open space will cover 30 percent of the project's site. Building courtyards, resident parks, and other private open spaces will account for another 20.5 percent of the site. And streets, pedestrian ways, and other public rights of way will comprise the remaining 19.2 percent.

Recreational activities along the waterfront will be the principal public amenity of Battery Park City. A broad esplanade will give the public access to the Lower Manhattan waterfront for the first time (see Figure 12). The esplanade will stretch the entire length of Battery Park City, linking a planned extension of Battery Park at the southern end to a new public park at the northern end. Unimpeded view of the harbor, and the Jersey shore will be available from the esplanade. Pedestrian walkways and sidewalks will link directly with the esplanade. The proposed overhead walkway from the plaza of the World Trade Center to the esplanade will make it possible for pedestrians to go from the transit stations at the World Trade Center to the farthest ends of the esplanade without once crossing a street. Other access points to the esplanade will follow the street system and pedestrian walkways. The grid alignment in the plan is based upon its orientation to the waterfront.

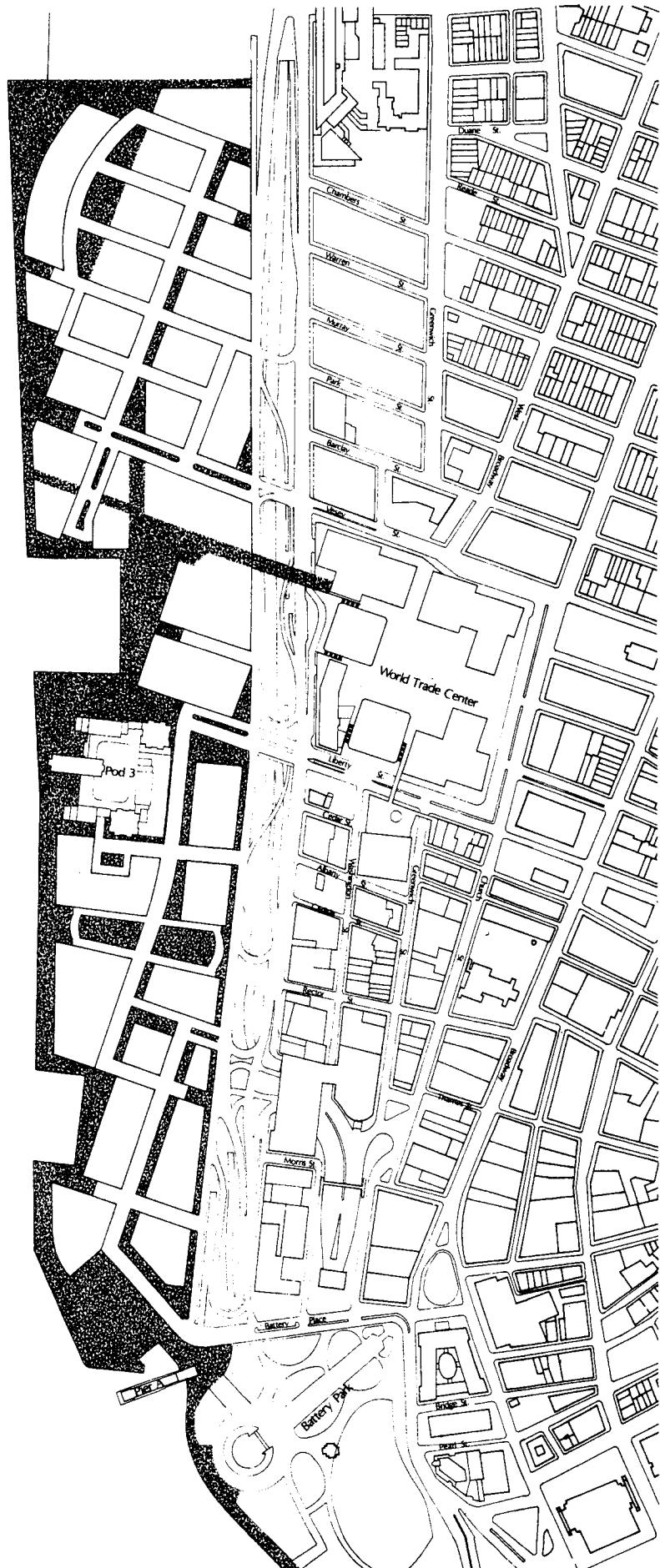
Landscaping will be the second amenity at Battery Park City. Most of the park areas will be densely planted. Some will be designed as places for relaxing during lunch hours or for restful retreats from the fast pace of the nearby City. Others will be grassed areas for more active recreational pursuits.

The open-space plan has been organized as a sequence of experiences. Most of them will be described as we summarize the plan's "special places" in the following section.

In brief, at the south end of the project will be the extension of Battery Park mentioned earlier. Farther north will be Rector Place, a large space that will link the upland area with the waterfront esplanade. The Commercial Center will be the site of a 4.2 acre plaza and a Winter Garden. At the end of Vesey Street will be another prominent open space. Finally, a large park will be defined by the curving building wall at the north end of the esplanade.

Figure 12

Open Space



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The design of the open-space system will take account of weather extremes. Planting pattern will vary by the season. Trees will be located in areas where they can break winter winds. And since the buildings along the inner streets and avenues will act as windbreakers on their own, these acres also will be planted so that they can act as attractive alternatives to the esplanade during the cold winter months.*

Land use, streets and blocks, circulation, and open spaces--have all addressed the planning, design, and development possibilities of the Battery Park City site and its surroundings. They form a unified plan (Figure 13) and a cohesive strategy for project execution. The consultants believe that the plan offers public decision makers and private investors a marketable framework for achieving the important public objectives of Battery Park City. This framework is still preliminary and can only become a finished master plan after review and consultation by those who will turn the plan into reality. We see plan making and implementation as interrelated parts of the same process: successful city building.

5.9 Special Places In The Plan

The overall site plan for the project illustrates, in general, terms the design concepts described earlier in the report. Within this plan there are certain areas of special significance. These areas have location-al primacy or particular design potentials that give them an important role in the realization of the plan. The way in which these "special places" are developed will be extremely important in determining the design quality of the project as a whole.

The following describes the individual characteristics of each of seven special places. It also makes recommendations as to how their particular qualities may be realized in the development process. The location of the place is illustrated in Figure 14.

The last of the special places is the Commercial Center and it is given more detailed consideration than the others. Project implementation will occur there first, and the early completion of its office and retail developments is vital to the overall resolution of the Authority's financial problems.

* For recommendations of planting and design concepts for esplanade and other open space areas, consult: Battery Park 1979 Master Plan: Open Spaces and Landscape Design Proposals, Zion and Breen, Inc.

Figure 13

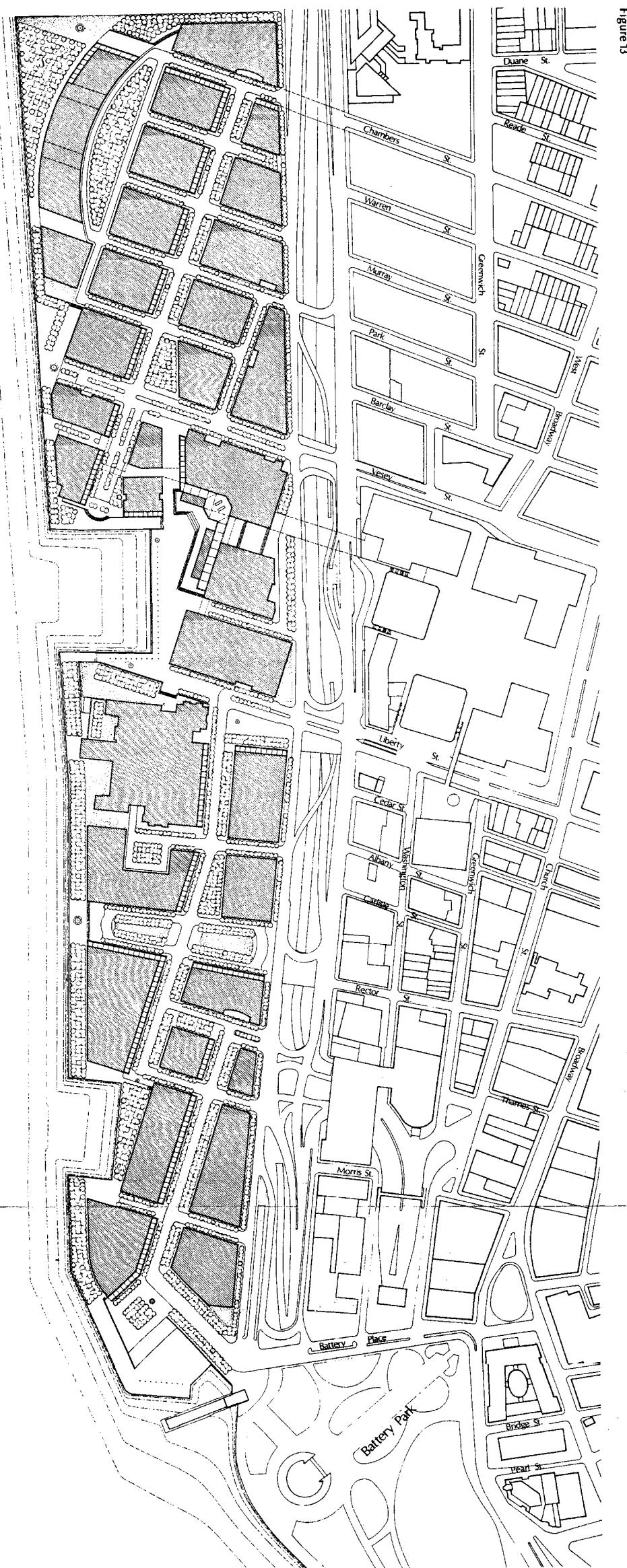
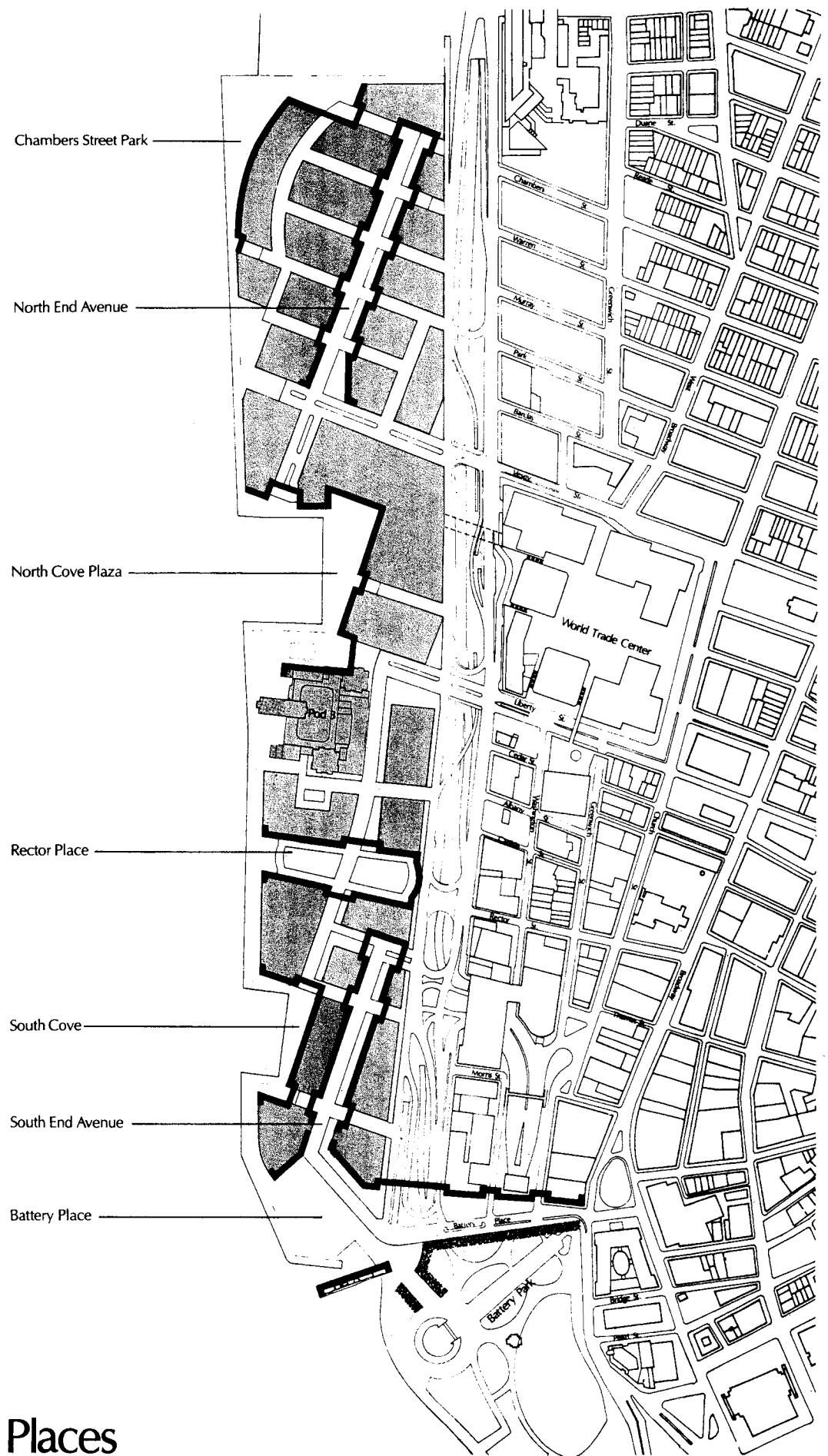
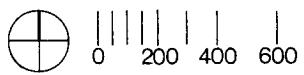


Figure 14



Special Places



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5.9.1 Battery Place Park

At the southern end of the site, a large public park will be created, at the end of Battery Place, as an extension of Battery Park. The new park will be the most southerly open space in the project, and it will serve as the entry point for people from the existing park and from Battery Place (Figure 15).

The park's size, attractiveness, and views will make it an important resource for Lower Manhattan and the City. It will be large enough to provide for activities that are metropolitan in scale. The dense planting and landscaping should give the park a quiet and shaded character. It will compliment and enhance historic Pier A, which will be the combined focus of recreational and commercial activities.

Views from the park will be the best at Battery Park City. Spectacular panoramas of the harbor, the Statue of Liberty and the Narrows Bridge will be visible. The Battery Place Park will be the southern terminus of Battery Park City's own waterfront esplanade.

A site could be designed within the park for eventual construction of an appropriate public institution--perhaps a museum or art gallery. No institution has yet been selected, but the presence in the park of a low-scaled, high quality building with public amenities would add to the park's distinction and character.

Figure 15

Battery Place

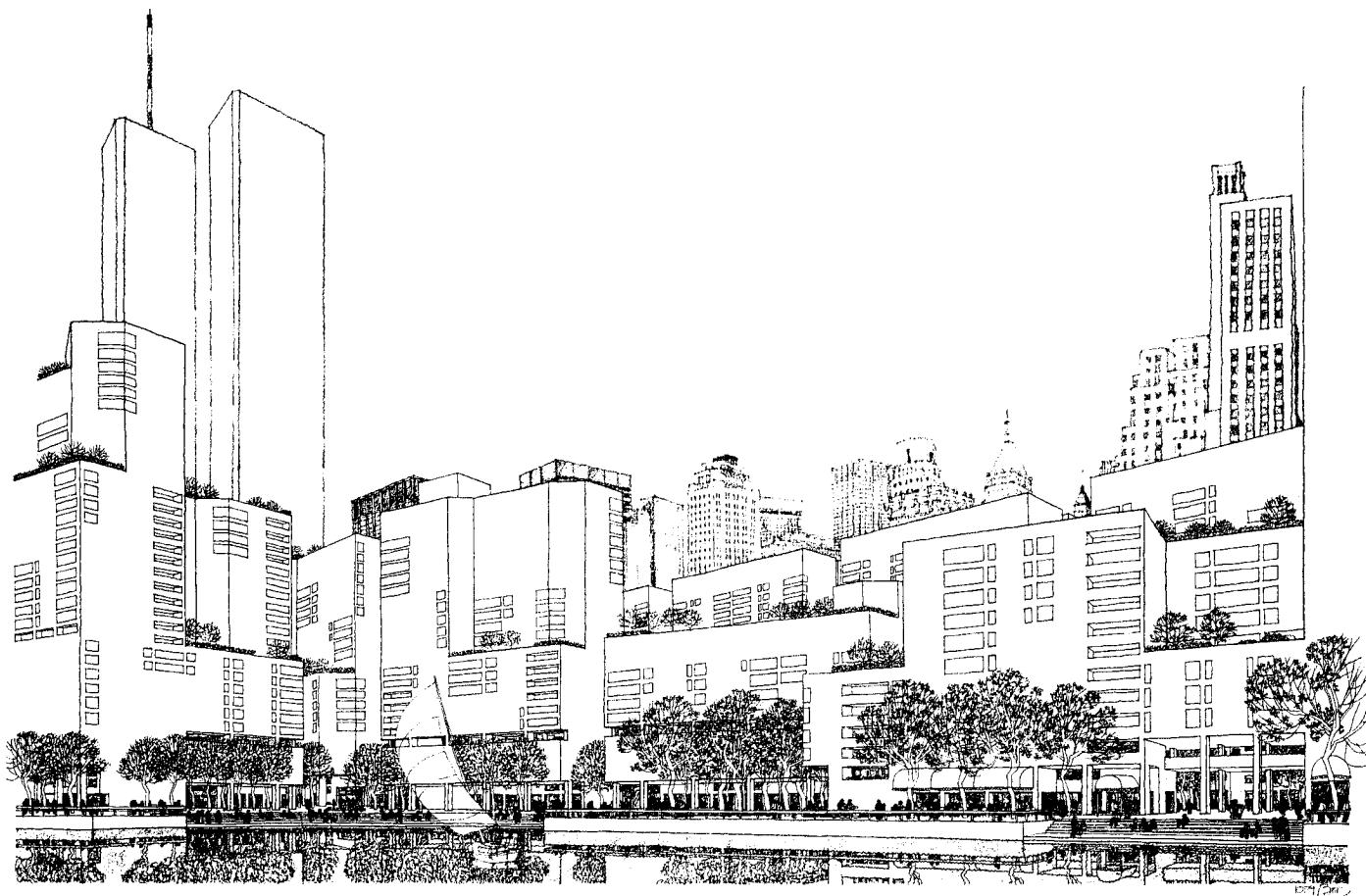


5.9.2 The South Cove

This cove presents a physical design opportunity in the design of the southern residential neighborhood. The waterfront esplanade will be open to the public; however, it can be a quiet spot with a feeling of enclosure and intimacy. To create this feeling, the esplanade and the space should be restricted in size and the "building wall" should be brought up close to the water. The spatial experience would contrast with the more open character of Battery Place Park to the south and the commercial center plaza further north (Figure 16).

Figure 16

South Cove

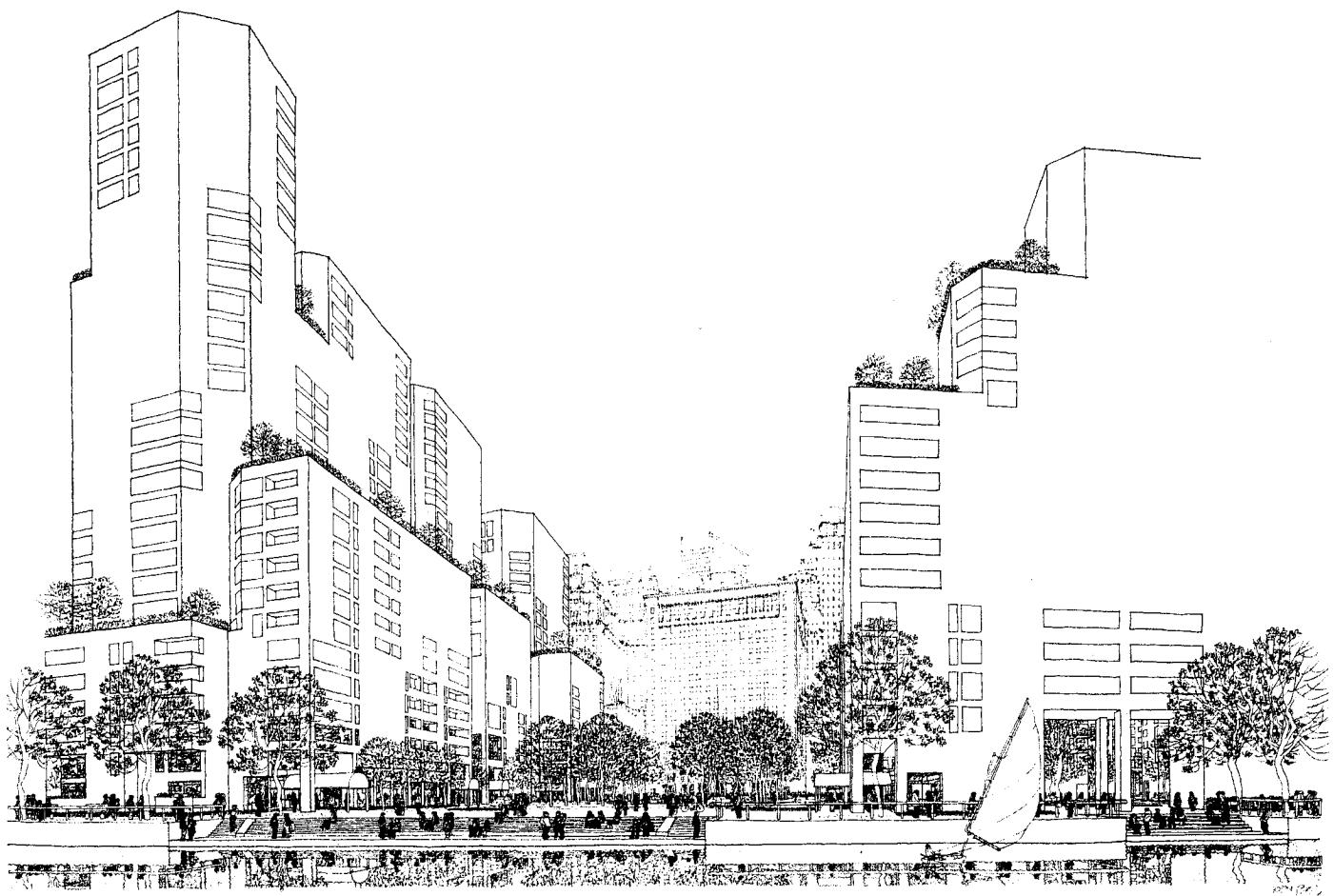


5.9.3 Rector Place

The open space at Rector Street is treated as a three-acre landscaped square reminiscent of an European city. The space spans the entire width of Battery Park City from West Street to the esplanade. Its generous dimensions serve two purposes: first, it accommodates pedestrians moving from the office buildings and subway stations along Rector Street to the waterfront esplanade; second, the residents of the area can use it as a neighborhood park. Office workers will not only pass through Rector Place, but they are likely to find it a handsome spot for lunchtime reading and relaxing. Residential development will benefit from the park and it will become an address of distinction. The landscaping will be formal and related to the urban character of the space (Figure 17).

Figure 17

Rector Place

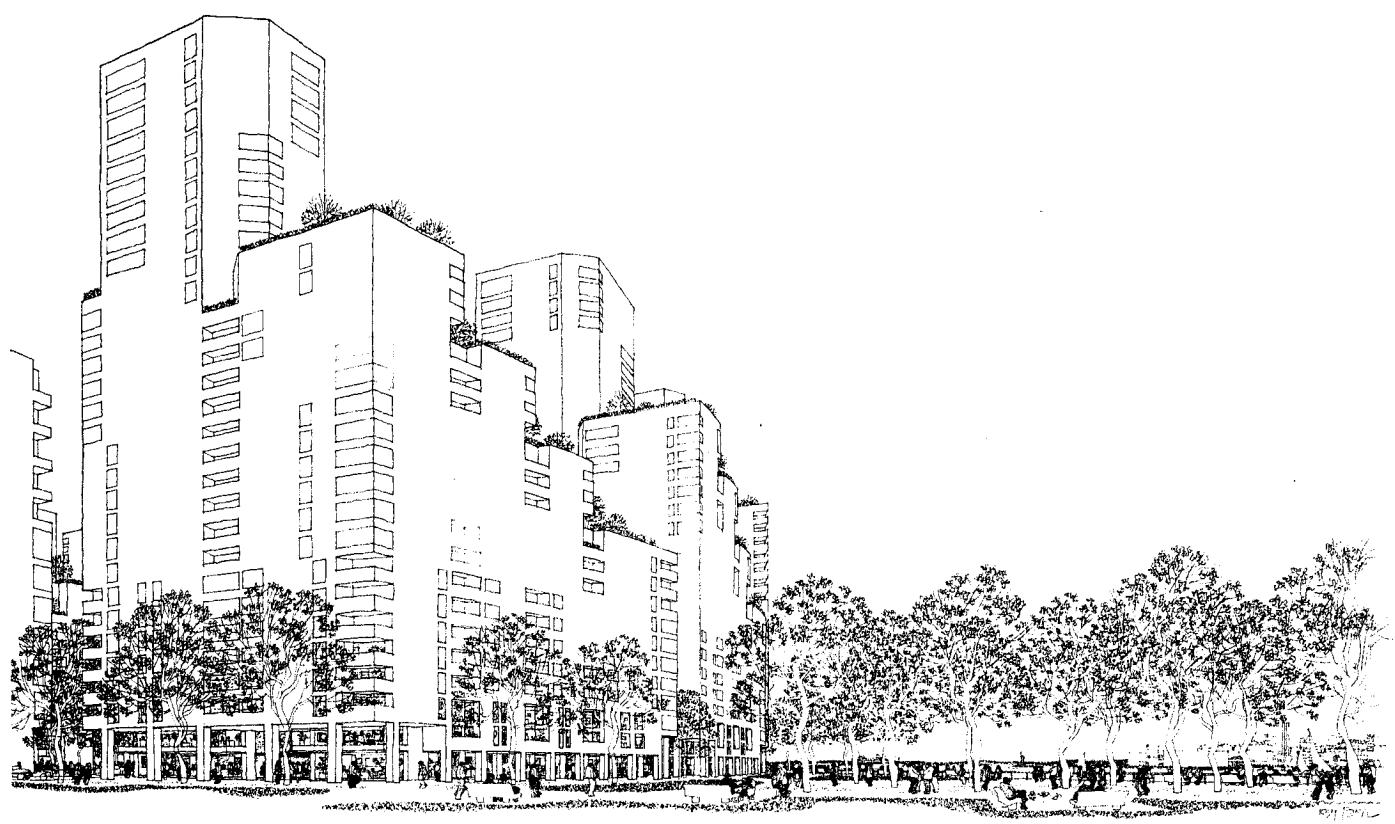


5.9.4 The North Esplanade and Park

The entire length of the waterfront esplanade will be open to the public. The section bordering the northern neighborhood is designed to be of a different character from that to the south. Fewer office workers and tourists will come this far north so that the character and use of the esplanade can be oriented to the needs of local residential neighborhoods. At its northern end, the esplanade will open out into a neighborhood park. This park is expected to serve the adjacent residential areas with provision for generally more active pursuits. There are buildings on only one side of the park and it will be open to the sun all day. The surroundings will be quiet, and the park will have unparalleled views up the Hudson River to the George Washington Bridge (Figure 18).

Figure 18

Chambers Park



5.9.5 North End Avenue

The northern residential neighborhood will have as its main street the North End Avenue. More than half of the right of way will be landscaped, and a 40 foot linear park will run down the east side. The park will give the avenue a special attractiveness for pedestrian movements in the summer. Adding to the avenue's unusual quality will be a dramatic southern vista to the commercial center and to the cove and the harbor beyond. As with other streets in the project, the visual association with the river will be present at all times. No other avenue in New York will have such a dramatic relationship with the river and the harbor (Figure 19).

Figure 19

North End Avenue



5.9.6 South End Avenue

This avenue will have the same design features as North End Avenue. However, its alignment is more complex than the avenue in the north. It is oriented toward the water and harbor views, and it has two vistas. One is contained by the small scale space at the South Cove. By contrast, the other vista is wide and open and focuses on the Battery Park Place and the harbor beyond.

The avenue will have an arcade on one side for shelter for the pedestrians during the winter and a broad linear park on the other side. The linear park will provide not only a pleasant shaded space for walking and strolling but also a setting for sidewalk cafes and summer activities (Figure 20).

Figure 20

South End Avenue



5.9.7 The Commercial Center

Of all the special places described here, the most important is the commercial center. Its central location and heavy public use means that its design will be a critical determinant of the "image" of Battery Park City. Accordingly, a more detailed design study of the commercial area was undertaken by the consultants. It was the only section of the plan where specific building forms were developed to test design concepts.

The design of the Commercial Center capitalizes upon the following locational advantages of the site:

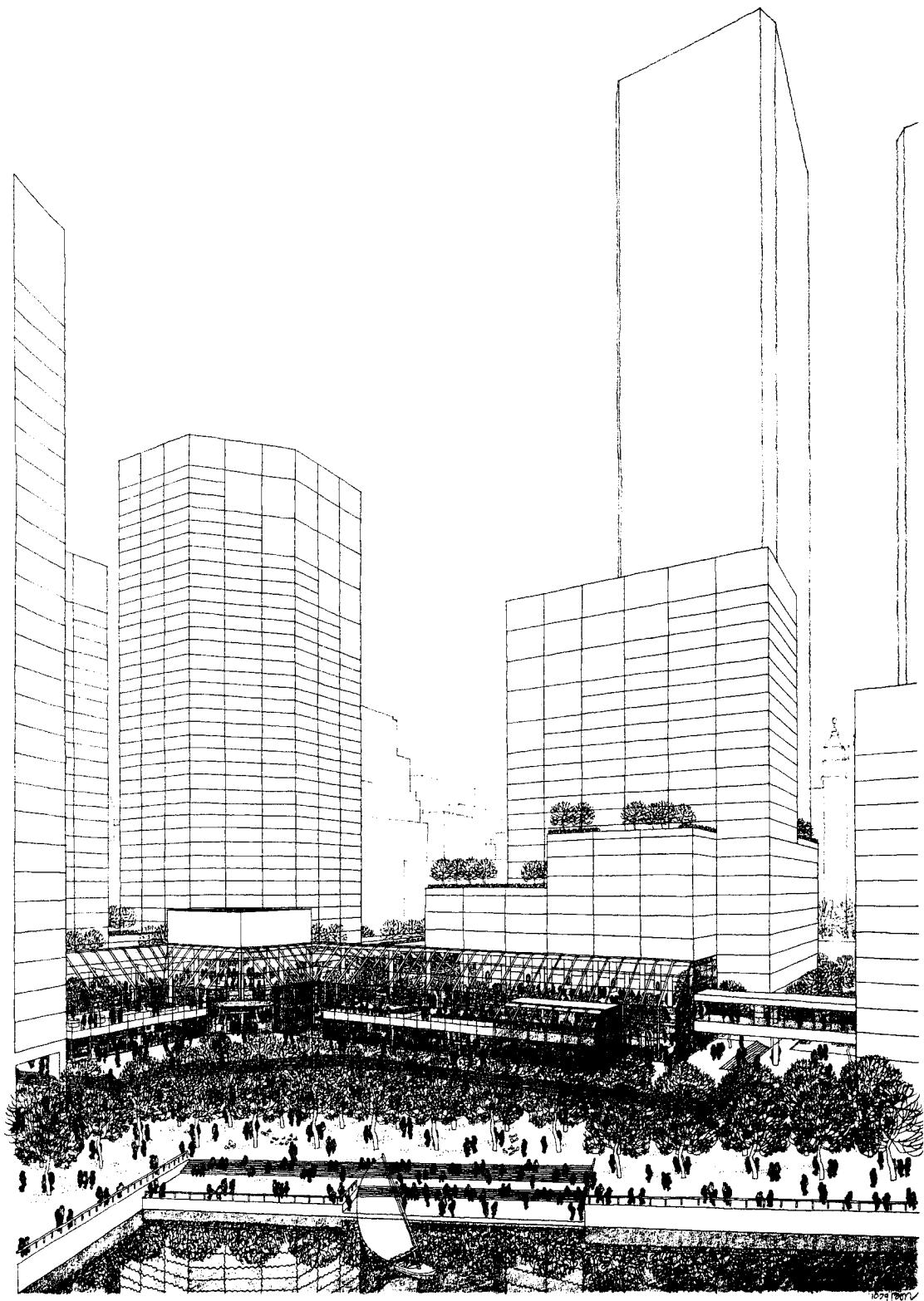
- Closeness to subways, the Path terminal and other mass transit
- The presence of large numbers of office employees, shoppers, and visitors in the immediate area, principally at the World Trade Center.
- Sufficient flexibility to provide a range of large or small development parcels adjacent to the World Trade Center
- The amenity of a waterfront location
- Immediately access to taxis, buses, and other vehicles via West Street/Westway.

The design concept for the commercial center provides for the integrated development of separate buildings. Office towers will be grouped around a generously proportioned plaza framing the north cove. Building bulk will be controlled. An upper level weather-protected walkway system will interconnect the buildings and, in turn, bridge across West Street/Westway to the World Trade Center Plaza (Figure 21).

Vehicular traffic will circulate at ground level using three peripheral streets--West, Liberty and Vesey. Separate vehicle access points are provided for ground level lobbies, parking and building service. Private drop-offs, frontage roads and service streets are provided where required. These facilities will provide access to parking and building service entrances and will ensure that vehicular traffic is handled without requiring curbside servicing. Limited parking will be permitted within each development parcel and provision will be made for taxi stands.

Figure 21

Commercial Center



Pedestrian circulation is provided at the ground level along landscaped sidewalks, and at level +32 where the overhead pedestrian system described earlier will link the office towers and connect to the World Trade Center. The projected pedestrian flows for this elevated walkway system are very large and volumes of over 30,000 persons per hour moving across the bridge to the World Trade Center are forecast for peak hour.

Creating the overhead walkway system will require coordination among the developers, (who would provide lobbies and connections within their buildings) and the Authority which would be responsible for bridging streets to interconnect buildings.

The most important amenity of the pedestrian system will be a Winter Garden which would line the edge of the plaza and form the year round climate controlled "mixing chamber" for the pedestrians using the buildings, the elevated pedestrian circulation system and the North Cove Plaza (Figure 22).

The Winter Garden will have continuously changing landscape treatments. Retail, personal service and restaurant establishments serving the commercial center will be accessible through the space created by the Winter Garden.

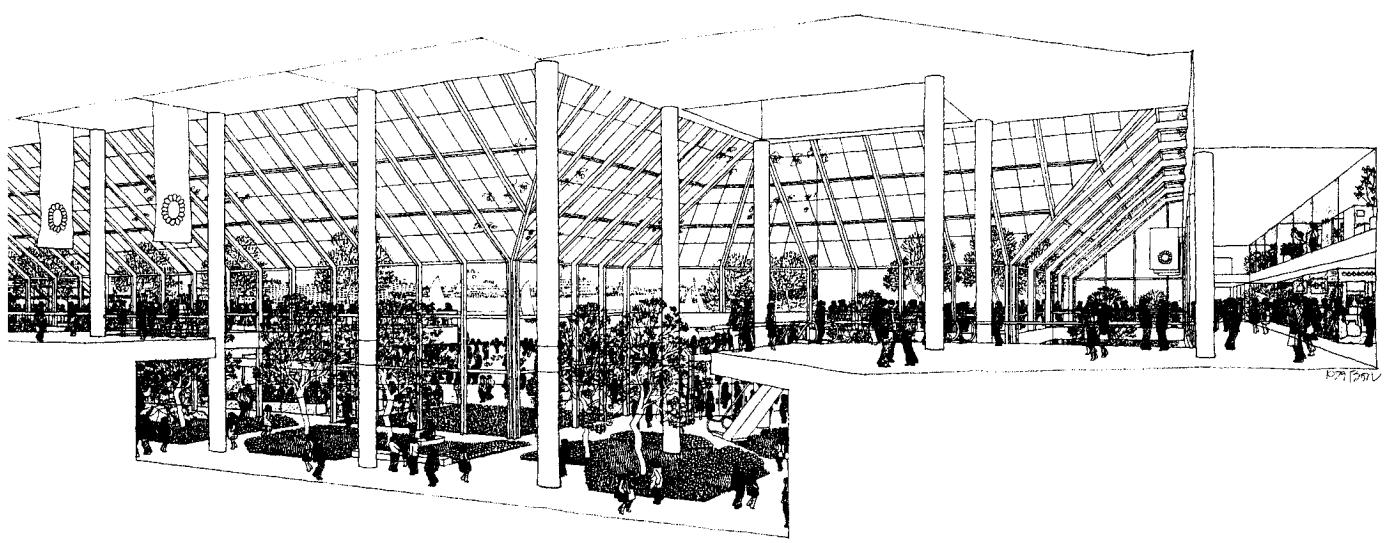
The North Cove Plaza will be the most important and heavily used public open space in the project. It will be an elegant urban space designed to the highest standards and framed by buildings and providing a setting for a wide range of activities. Formal planting and trees will provide contrast with the predominantly "hard" landscape treatment required to meet the heavy usage expected.

The commercial center will have a wide enough range of development parcels to offer a spectrum of development possibilities. There is sufficient flexibility within the design concept to allow parcels to be modified for specific building configurations. The vehicular and pedestrian circulation systems are shown in Figures 23 through 26.

Creating a new commercial center immediately adjacent to the World Trade Center presents an unusual challenge. Since the World Trade Center has taken on symbolic value, the new commercial center should not diminish the twin towers by rising too high. Therefore, a maximum building height for the commercial center should not exceed half

Figure 22

Winter Garden

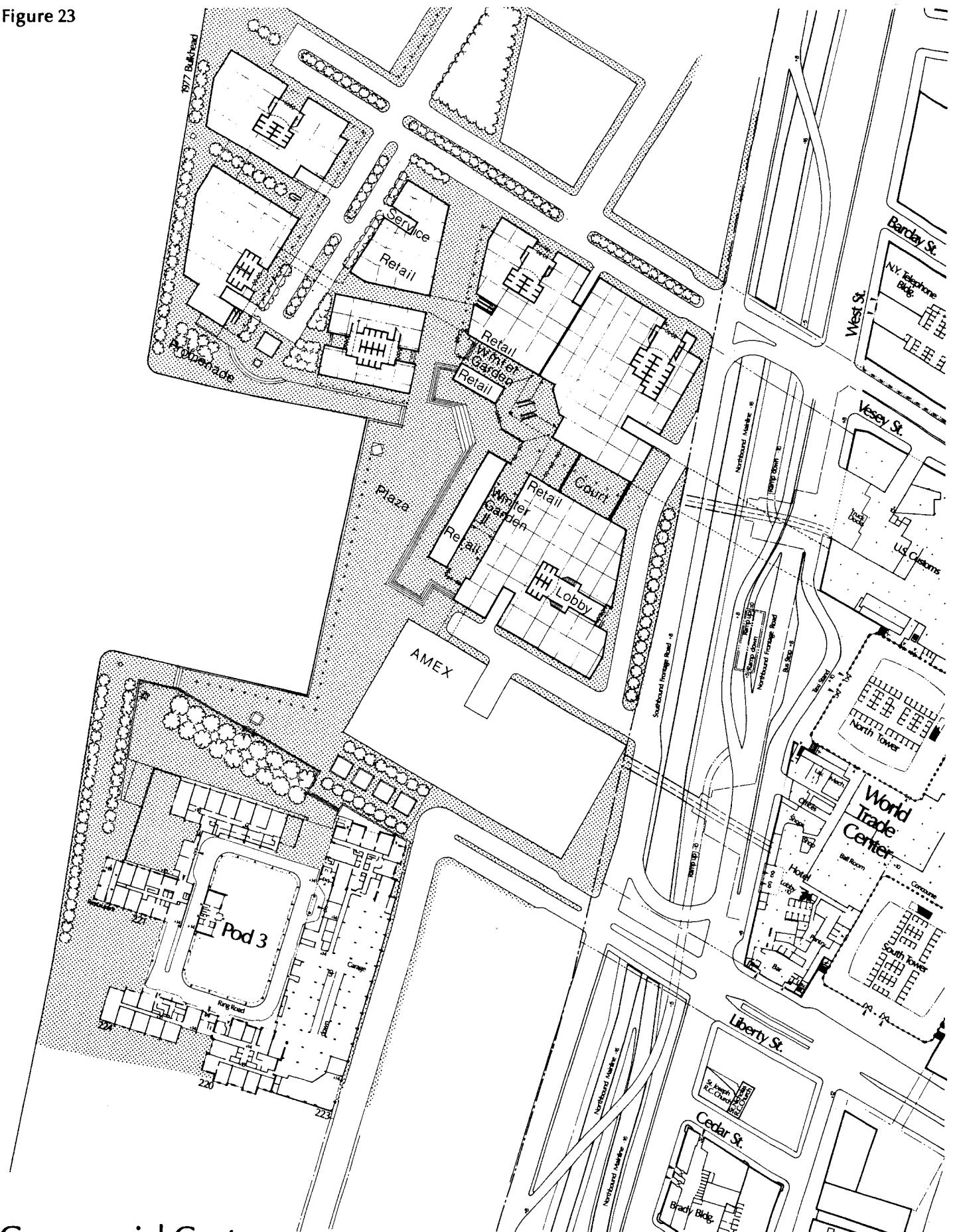


the height of the World Trade Center. At this height, buildings would be in scale with the tallest existing building adjacent to the Trade Center--The Bankers Trust Building.

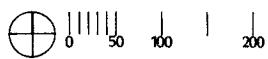
A second element of the design relates to the junction between the new buildings and the pedestrian environment. Office buildings should be consciously designed with a base configuration that is small scale and related to pedestrian activities. Towers rising from empty plazas should be avoided. Instead, towers should sit on a podium that is referenced to the sidewalk line. A system of uniform setbacks, as mentioned earlier, will be developed to avoid the overwhelming presence of tall towers, when viewed from the sidewalk. The test of building design will be its impact at the pedestrian scale.

Another scale must also be recognized at Battery Park City for future building design: That of the skyline when viewed from the harbor. The massing of building forms at the commercial center should include lower structures near the river and higher structures at West Street. This massing will step up building heights toward the Trade Center, thereby respecting the traditional pyramidal shape of the Lower Manhattan skyline.

Figure 23



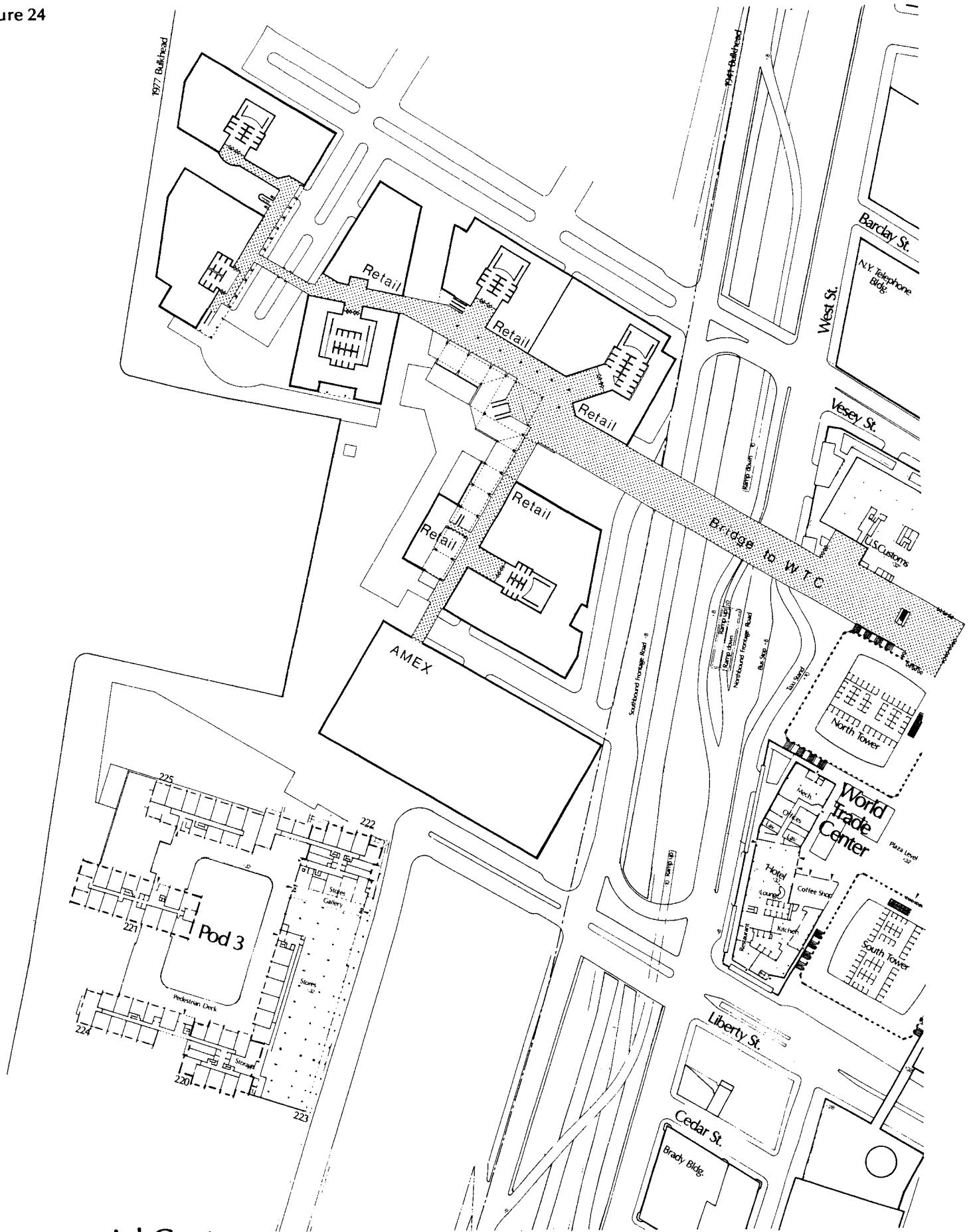
Commercial Center Street Level



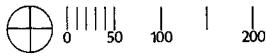
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Figure 24



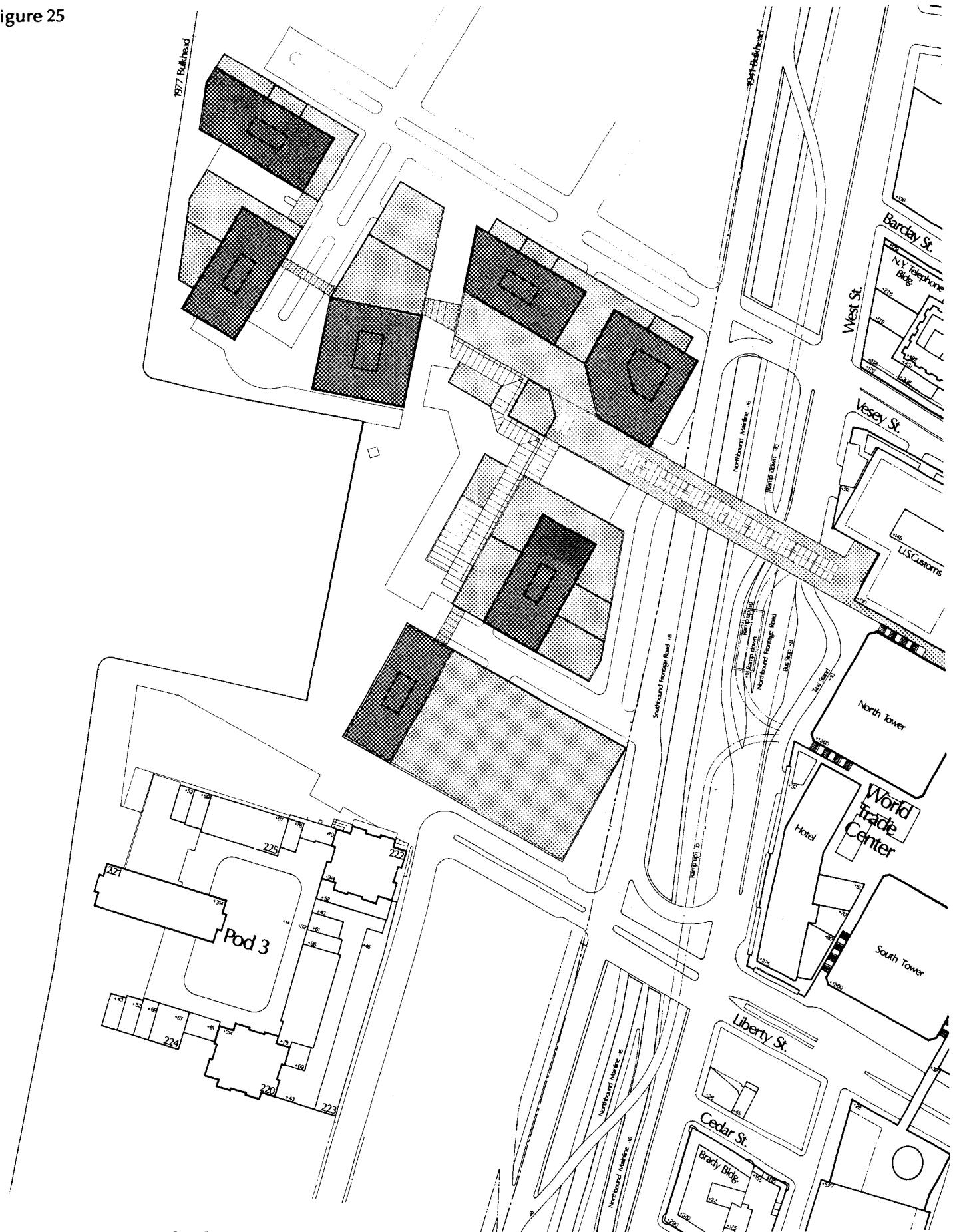
Commercial Center +32 Level



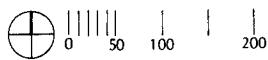
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Figure 25



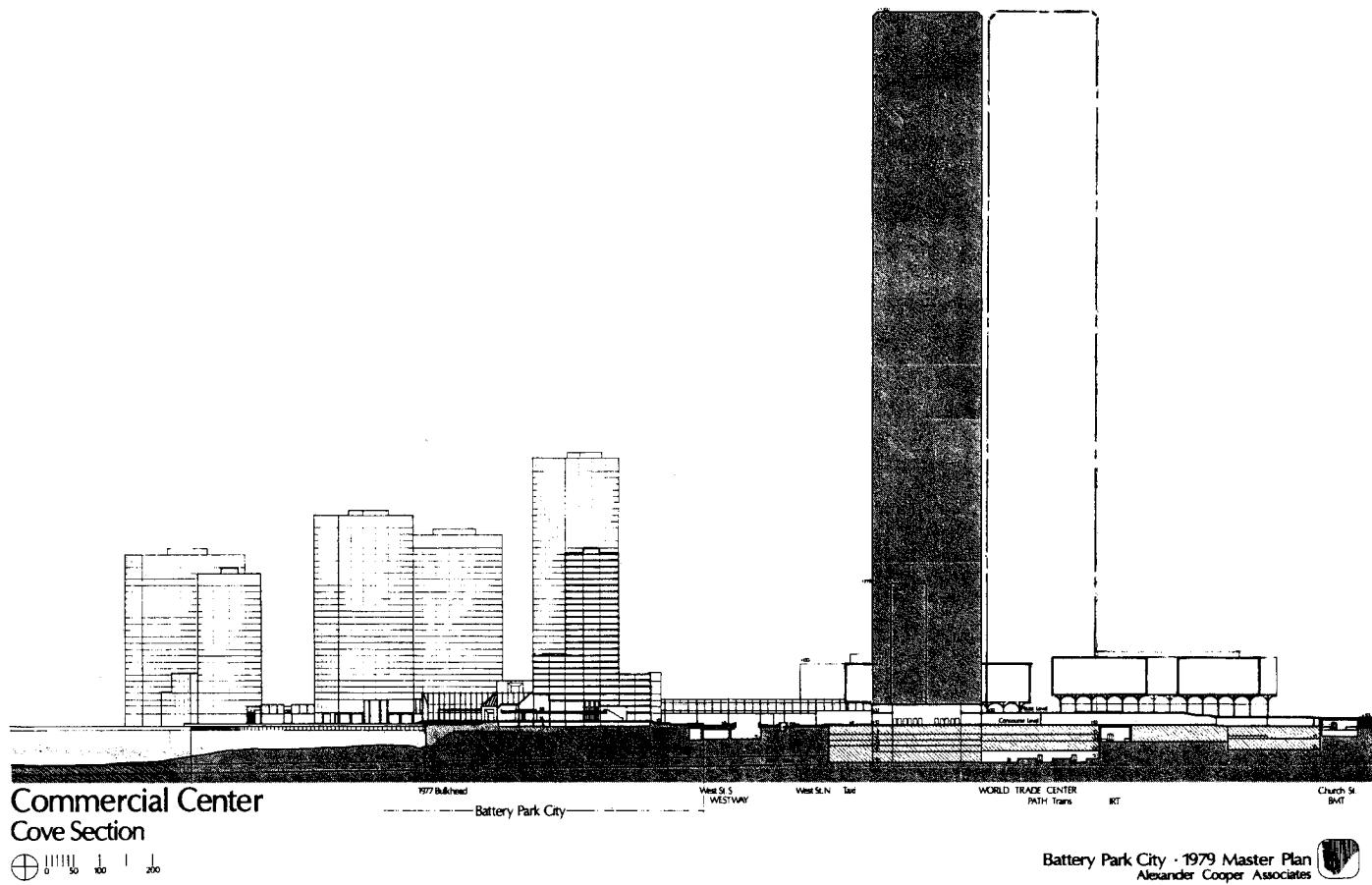
Commercial Center Roof Plan



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Figure 26



Chapter 6

Implementing the Plan



CHAPTER SIX: IMPLEMENTING THE 1979 MASTER PLAN

This report will serve as a framework for discussions among the Authority, the State and the City; it will also help to structure the dialogue with the development community that will construct large parts of Battery Park City. The revised plan will, and should, be subject to the scrutiny of those most concerned before it is finalized. The concepts presented are open to modifications that could improve its amenities or accelerate the development of the property.

It is felt that the framework proposed here capitalizes on the assets of the natural location, provides a responsible public investment program, and creates a superior living, working and leisure time environment for New York City. The plan shows how Battery Park City can be achieved logically and compatibly.

6.1 A Strategy For New Development Controls

Appropriate means of implementing the plan are an important aspect of the review discussions. The consultants have made a number of suggestions about implementation in the course of describing the plan. Primary among them are uncomplicated techniques such as street mapping and zoning classifications for the majority of the site. These are traditional methods available in New York City that should prove more reliable than the Special Zoning District that controls the existing Battery Park City Plan.

In the commercial center a different approach is warranted. Here the integrated nature of development suggests a method of controls that is broader than lot-by-lot regulations on building height, bulk and setbacks. Flexible controls are needed for two reasons: to achieve the design quality of the recommended site plan and to allow a ready response to changing market requirements.

Design quality will require the sensitive handling of the relationship between individual building heights and building setbacks from the major perimeter streets, in order to protect adjacent properties.

Market requirements can be expected to change substantially over the ten to fifteen years during which the buildings of the commercial center will be constructed. Controls must be able to adapt to changes

in the necessary lot size, bulk of building, and amount of coverage that will be allowed for any particular size, bulk of building, and amount of coverage that will be allowed for any particular structure.

Experience has shown that the simplest mechanism for achieving both of these purposes is a "large-scale development plan". This approach has been used successfully by the City in several areas to achieve an integrated development. Such a plan offers a direct but flexible control mechanism for the commercial center.

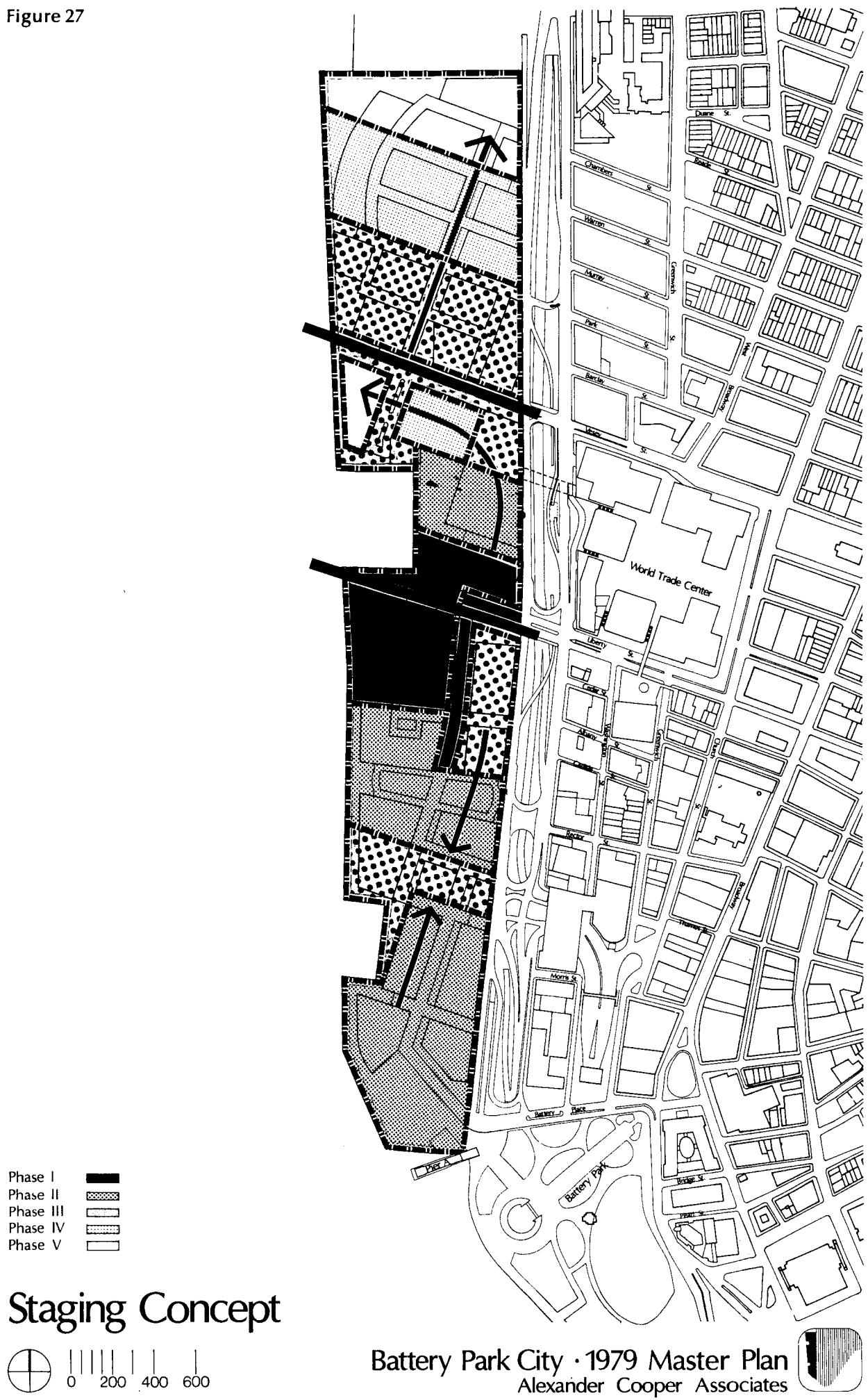
In brief, the commercial center would be set off from the rest of the project by an imaginary regulatory boundary. Within that boundary, the Authority would have the freedom to implement the site plan in an integrated fashion, rather than on a lot-by-lot basis. All building bulk would be pooled, in order to allow for a flexible distribution of bulk and open space around the commercial center. Individual parcel lines would become secondary to the desire to achieve various building sizes with differing coverage requirements.

Clearly, there would have to be a restriction on overall bulk if congestion is to be avoided at the ground level. The consultants propose that the large-scale development plan be limited to a maximum density of F.A.R. 15. This density would be the ceiling on the bulk of the development when it is ultimately completed. Any one building may exceed this density level, but the aggregate bulk on all building parcels cannot.

6.2 Staged Development of the Project

Flexibility has been stressed throughout this report as being of the utmost importance in approaching the development of the site. The ability to respond to changes in the market is clearly important. However, constructing the infrastructure necessary to support private development proposals has operational and cost implications. Figure 27 shows, in diagram form, the most cost effective directions that the development process might follow. These recommendations are based upon the revised plan and represent a way of staging development to allow phased construction of roads, utilities, open space and parks.

Figure 27



The recommendations also make market judgments as to which of the parcels on the site might logically develop after the implementation of POD III and the AMEX building at Liberty Street.

6.3 Infrastructure Cost Estimates

A cost estimate for the development of the revised plan was prepared. The estimate was based upon current unit cost information* and a preliminary layout of sewer, water and storm drainage facilities.** Table VIII summarizes the costs (in 1979 dollars) for the main categories of infrastructure improvements. The estimate assumes sufficient improvements by the Authority to support a development program of 6 million square feet of office space and 16,000 apartment units.

6.4 Financial Implications for the Authority

Earlier this report notes that even if development were to proceed immediately on projects in Battery Park City, the Authority would not be able to meet its financial obligations throughout the 1980's.

The revised plan, the recommended staged development plan and the infrastructure cost estimates presented earlier in this chapter have all been used on the basis for the preparation of a series of long range cash flow analyses. These analyses have been carried out in order to eliminate the order of magnitude of additional financial support that the Authority will require to carry out the three proposals outlined here.***

Cash flow for both ten and fifteen year absorption rates were prepared and they indicate that funding is initially required from an outside source in 1981 to meet the first bond amortization payment of \$1.9 million. Such amortization fundings continue through 1983 and 1984, respectively, at which point all bond proceeds have been utilized except the \$14.3 million Project Debt Service Reserve Fund. Thereafter, additional funds from an outside source are required up to cumulative

* See Battery Park City 1979 Master Plan: Construction Costs, Donald Wolf and Company.

** See Battery Park City 1979 Master Plan: Traffic and Engineering Analysis, Vollmer Associates.

*** See Battery Park City 1979 Master Plan: Financial Analysis, Eastdil Realty, Inc.

Table VIII

INITIAL ESTIMATES-INFRASTRUCTURE COSTS*

(In Thousands Of Dollars)

Type of Improvement	Component Cost	Sub-Total Cost	Total Cost
1. SITE WIDE IMPROVEMENTS			
1.1 CIRCULATION		\$13,700	
Pedestrian Bridge	\$ 2,000		
Roads	9,000		
Traffic Signals	1,000		
POD III Access	1,700		
1.2 OPEN SPACE		\$31,000	
Esplanade	\$ 8,500		
Parks	16,000		
POD III	1,500		
Winter Garden	5,000		
1.3 UTILITIES		\$ 8,500	
Sanitary	\$ 2,500		
Storm	2,500		
Water Supply	3,500		
TOTAL COST			\$53,200
2. IMPROVEMENTS BY ZONE			
2.1 COMMERCIAL CENTER		\$17,600	
Circulation	\$ 2,600		
Open Space	7,000		
Utilities	1,000		
Bridges	2,000		
Winter Garden	5,000		
2.2 SOUTH RESIDENTIAL AREA (8,205 d/u)		\$23,100	
Circulation	\$ 4,000		
Open Space	11,900		
Utilities	4,000		
POD III	3,200		
2.3 NORTH RESIDENTIAL AREA (7,145 d/u)		\$12,500	
Circulation	\$ 4,000		
Open Space	5,500		
Utilities	3,000		
TOTAL COST			\$53,200

* All figures stated in 1979 dollars

Source: Alexander Cooper Associates and Wolf and Company.

amounts of \$46.6 million in 1986 under the ten year absorption projection and \$59.3 million in 1988 under the 15 year absorption model. Under both scenarios project cash flows become positive the year after the peak of outside funding is reached. The principal amounts of outside funds would be fully returned by 1990 and 1992, respectively. Thereafter the net positive cash flow from the project continues to increase providing additional security for the bond holders, and value to the underlying land.

The conclusion of these projections is that the successful full development of Battery Park City (as defined in this report) appears possible. Such development would provide for the repayment of BPCA bonds as required, provided that the additional capital is contributed, and repaid, over an approximately 11 to 13 year period.

6.5 Future Co-ordination

The underlying theme of this report has been that Battery Park City is not an island separate from Lower Manhattan. It is neither useful nor desirable for the State and the City to ignore the potential that this unique site offers. Rather, there appears to be strong public policy reasons to support moving ahead with the project.

It is clear that in order for this to happen, a number of modifications to the surrounding area would be desirable in order to take maximum advantage of the 1979 Master Plan proposals. The following is a partial list of important issues that need to be addressed. For example:

- Review and modify detail designs of intersections in the present Westway plan that affects Battery Park City 1979 Master Plan.
- Commence negotiations to establish the location for an elevated pedestrian bridge linking the World Trade Center and the proposed commercial center in Battery Park City.
- Investigate the potential for integration of Battery Park City street system proposals with Washington Market Urban Renewal Project.
- Undertake an analysis of alternative approaches for meeting the energy requirements of the revised plan.
- Develop a set of agreed upon bulk and density controls that meet the plan's criteria for flexibility and development efficiency as well as the City's policy objectives.

- Move towards the early adoption and mapping of certain key streets in Battery Park City
- Investigate with the City the potential for closing all or parts of Rector Street to vehicles and reserving it as a major pedestrian linkage to the waterfront.
- Re-examine the Greenwich Street Zoning District to take account of the proposed changes in the 1979 Master Plan.

This short list of future co-ordination actions serves to illustrate the wide range of public and private interests that are affected by the future of Battery Park City. All parties have a legitimate interest in the success of the project and none will be served by the continued presence of such a large area of derelict waterfront land in Lower Manhattan.

Figure 28



New York Harbor

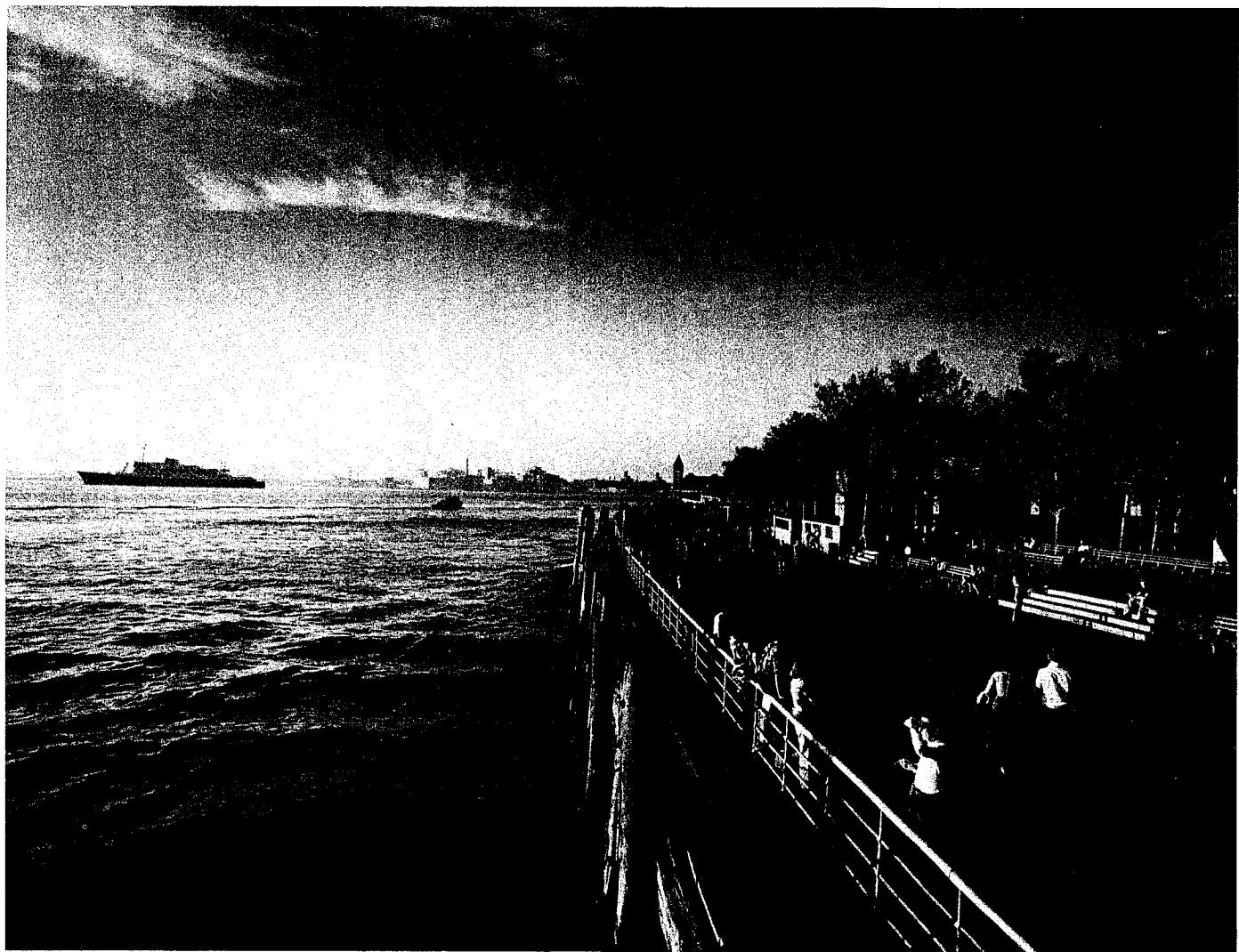


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