Design for Diversity

A Mixed-use Design Project for Ruggles Street Station

by

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Submitted to the Department of Architecture in Partial Fulfillment of the Requirements of the Degree Master of Architecture at Massachusetts Institute of Technology, June 1984

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Abstract

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The subject of this thesis is the design of a mixed-use project for Parcel 18 in the Roxbury district of Boston. The site is adjacent to the proposed Ruggles Street Station, an intermodal transportation facility, which will accomodate rail and bus passenger services.

The design problem is the integration of a variety of housing types, retail space, offices, and a hotel into a synergetic whole. The primary ordering systems, circulation, use location, and structure, are organized to promote an intimate overlap and intermixture of diverse activities. Within the intermixture of uses, an implied goal is to maintain the continuity and integrity of each pattern of activity.

The organization of the thesis parallels the design process with the intent of illustrating a theoretical approach to urban design in an area in need of revitalization. The challenge in mixed-use design lies in the creation of an environment where human experiences can be rich and meaningful. Human interaction, rather than land, is the focus of attention in this design exploration.

Thesis Supervisor: N. John Habraken
Title: Professor of Architecture

Thanks to...

My parents, Josephine and John E. Washington Sr. I love you both. Thank you for everything.

Karen, my sister. You have been an inspiration. I love you.

John Habraken, my thesis advisor. The patience and guidance you have given me could only come from a friend, thank-you.

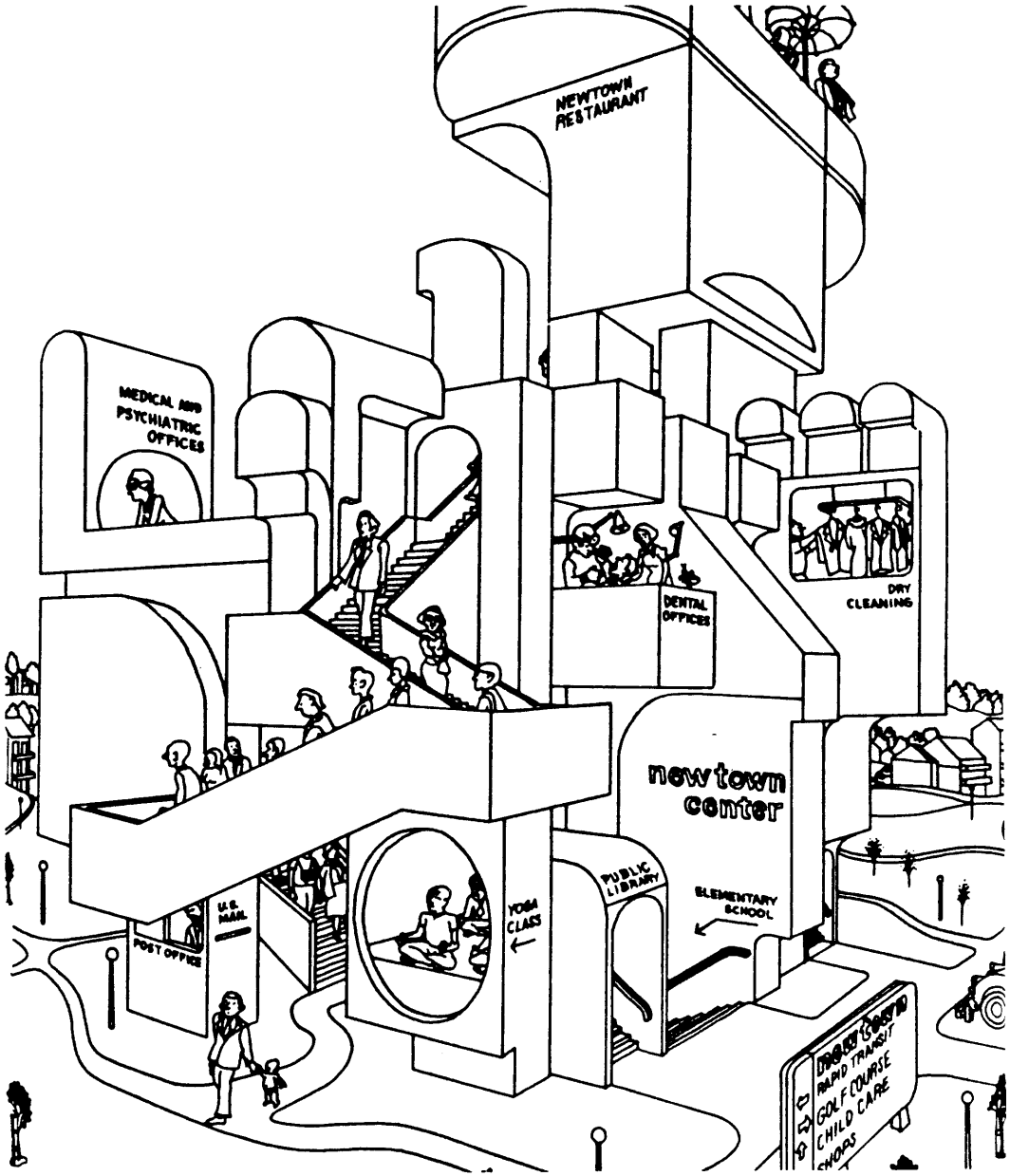
The memory of my grandparents, greatgrandparents and all spirits past, present and future (you know who you are) that sacrificed so that I could achieve. Thank you all.

The memory of my classmate and comrade 'E'dward L. Horton

Lanette, I couldn't have done this were it not for you.

Letitia, You are the Sunshine of my life thats why I'll always be around.

Contents



Source: Mixed Land-use,
Dimitri Procos

1 Introduction

Personal Motives

"Those who choose cities are saying: Yes I accept the grief and the dirt and the pain, but those are the dues I pay for admission to the feast. And at the feast, I choose to my own taste."

--Angela Bofill
Angel of the Night

The background for this thesis developed as a result of my interest in both city planning and architecture. As one who has always been fascinated with the city and its development, I have chosen to explore a building type on a scale that reflects some of the qualities inherent in urbanism. Urban living has the potential to offer a diverse range of activities as well as increased educational and cultural activities within a relatively small area. Most importantly, the possibility of choice in one's contacts and associations is not limited. What gives form and shape to the urban environment?

There have been many ways of perceiving the urban environment. It has been seen as a social system, an economic system, a political system, and as a physical system as well. The major focus in this thesis deals with the physical system as a subset of the social system. An implied notion is that there are a number of organizing elements in the built environment that provide users with cues for appropriate behaviour. Therefore, the structure of a particular environmental setting may inhibit or facilitate certain activities. The design exploration then becomes a means-seeking process to uncover the intrinsic physical structure of the urban environment by investigating those organizing elements in relationship to people.

The reason for choosing a design case within the context of the working-class neighborhood of Roxbury is that development of this type is capable of accomodating people who have borne the brunt of unnecessary land-use separation. It is within this context that an opportunity exists to project a design solution that could possibly enhance the Roxbury area. A mixed-use development would not only provide accessible jobs and much-needed housing, but it would also have the ability to attract a desired income group of commercial and residential tenants to an area where such amenities are lacking.

The benefits of mixed-use development can be measured not only in economic terms, but in social terms as well. Most important to this thesis is the social benefits that are possible. We shall look at the ramifications of these benefits at a later point. But first, it must be mentioned that this project occurs at an interesting point in Boston's history; a point where many of the residents of Boston's neighborhoods are eagerly seeking development within their areas.

The integration of a wide range of activities not only implies a wider range of choices for the individual, but allows for some degree of selectivity within each choice between privacy/sociability, single/group expression, and active/passive activities. Furthermore, mixed environments provide a setting that can foster individual growth and human development.[1]

Much of urban development in America has resulted in the simplification of the urban environment into a fragmented entity consisting of internally homogenous environments. As a result. land-use separation strains complex social relationships and the urban scene loses some of its attractiveness. Land-use separation diminishes diversity and the possibilities for complex human activities.

The technical term "land use" has become synonomous with planning control and implementation.

Land-use control through zoning becomes a powerful tool capable of excluding certain urban functions based on real or perceived

incompatibilities with the status quo. Much of the land-use controls in effect today are in some way the result of the Industrial Revolution, either as a mitigating measure for the deleterious effects of industrialization or as the tools of the forces who were responsible for leadership in that era.

Historically, land-use separation was introduced as an economic device to separate populations into consumers and producers.[2] During the nineteenth century, there was a growing consciousness in the bourgeoisie that their class was destined to consume what the lower class produced. Out of this consciousness grew the need to segregate the working class. As a result, the spatial quality of the city grew to reflect these priorities. The factories were located farther away from the city center, with its consumeristic atmosphere, while the workers were concentrated into separate residential districts. At times, the factories were located within the residential districts of the workers. This dichotomy between the environments of the working-class poor and the more affluent classes set the spatial organization of the American city. Land-use control was never intended to meet the needs of the working-class poor.

Mixed environments have been the norm in many European and non-Western cultures for centuries. By comparison, American planning practices have made use-intermixture an exception. Many mixed environments have adapted well to the twentieth century. This realization, coupled with current developments in American society, has led to a reevaluation of land-use separation policies. The emerging forces reshaping attitudes toward use separation are: 1) the change from a production-oriented economy to a service-oriented economy, 2) the increasing cost of energy supplies, 3) changing urban demographics, and 4) a genuine interest in returning to the integration of home, work leisure, and shopping.

The change in today's economy from production to service is a result of the Technical Revolution that we are now experienc-

ing. People are relying more heavily on the inventions that are revolutionizing our lives, from the way in which we communicate to the way in which we spend our leisure and work time. In the future it may be possible to remain at home rather than leave the home for work. For instance, a home-based computer terminal may allow workers to "punch the clock" in the home. In light of such advances, an intermixture of activities in close proximity to the home could insure a range of sociable contacts that such advances would ordinarily deny. Furthermore, such close-grained associations between home, work, and recreation will make people more tolerant of an intimate overlap of activities.

Technology has also permitted a closer spatial relationship to exist between historically incompatible land-uses because we have been able to clean-up the more dirty and harmful aspects of the work environment. Thus, we are experiencing a breakdown of the need for land-use separation that the Industrial Revolution brought about. This idea has helped to form another basis for the exploration of mixed-use development.

Mixed-use development can also be seen as an energy conserver. Use intermixture can reduce the frequency and the distance of trips that an urban dweller takes by automobile. Land-use separation takes advantage of the automobile's utility. In a setting with a close-grain intermixture of activities, the individual may be able to take care of his daily needs on foot within the immediate range of the home.

Mixed-use development may be more responsive to the change in urban demographics. Many urban families are becoming smaller in size. A suburban home on a large-sized lot is becoming less in demand. Also, the current trend toward younger professional families remaining in the city points to the possibility that people have a desire to be closer to the amenities, such as work and leisure opportunities, that city life has to offer.

In conclusion, today's prototypical designs of mixed-use de-

velopment have made the sharing of land an economic issue devoid of human consideration. Land has been seen as the focus of attention rather than people. There are numerous examples of mixed-use developments that originated as a real estate investment strategy. For example, the construction of an apartment tower above the Museum of Modern Art and the construction of the Madison Square Garden over the Penn Centrail railroad station in New York City are cases in point of maximizing land values. In both cases the unsatisfactory cash flow forced the management to look at alternatives to increase land value. These mixed-use developments are just two examples of land-use intermixtures where savings were derived from the double or multiple use of land.

MIXED-USE DEFINED

The term mixed-use development as used in this thesis refers to the inclusion into a building or unitary complex of buildings of more than one land use. Building or a complex of buildings is a group of facilities which have been planned as a single unit. The word "use" denotes land-use which is used in the conventional planning sense referring to residential, commercial, and the like.[3] The reader's indulgence will have to be begged for the freedom with which I am using the term "mixed-use." The usage of the term reflects the unrecognized complexity of the field.

The Design Problem

The design problem is the integration of the various program elements into a synergetic whole. The design and placement of the infrastructure (i.e., the horizontal and vertical circulation systems, structural elements, and uses) is intended to promote the overlap and intermixture of activities. Maintaining the continuity and integrity of each pattern of activity is a crucial goal in the design.

The scope of the thesis involves the overall organization of the program elements on 5 1/2 acres of land. Within the overall framework, I concentrated my energies on an in-depth study or test of a major area of the project which is the equivalent of the design of two city blocks.

Structure of Exploration

In documenting prototypical designs of mixed-use development

projects, I found the process to be very time consuming and unfruitful. First, the term "mixed-use" was not a term that appeared as an entry heading in periodicals. Secondly, I found very few examples to substantiate my view of the social concerns involved in the design of mixed-use projects. Many of the examples had a clear separation between the circulation systems of the various uses and the spaces that were served. The circulation systems were substantially separate, implying that interaction among the users would be minimal. In addition, the form of the buildings did not suggest that an intermixture of uses was occurring at any level within its confines. I believe that the first three considerations of my learning objectives summarizes the problems that I experienced with present day examples of mixed-use design.

LEARNING OBJECTIVES

1) to recognize the effects of scale and the multiplicity of goals implied by use intermixture, 2) to recognize the effect of building organization and form in facilitating the socio-spatial intermixture of activities, 3) to use structure and/circulation as the basis of overall organization, 4) to acquire the knowledge and skills to develop a large and complex project, 5) to explore the relationship between values and physical form, and 6) to use industrial technology for the materialization of ideas. These learning objectives summarizes not only what I had hoped to gain from the design exploration, but also some of the things that I found inherently wrong with present day mixed-use developments.

Notes

[1] Rudolph L Barton, Urban Design Strategy for Use Intermixture. (Cambridge: Harvard University Thesis, 1981), p. 93.

[2] Dimitri Procos, Mixed Land-Use: From Revival to Innovation. (Toronto: Elsevier Press, 1969), p. 5.

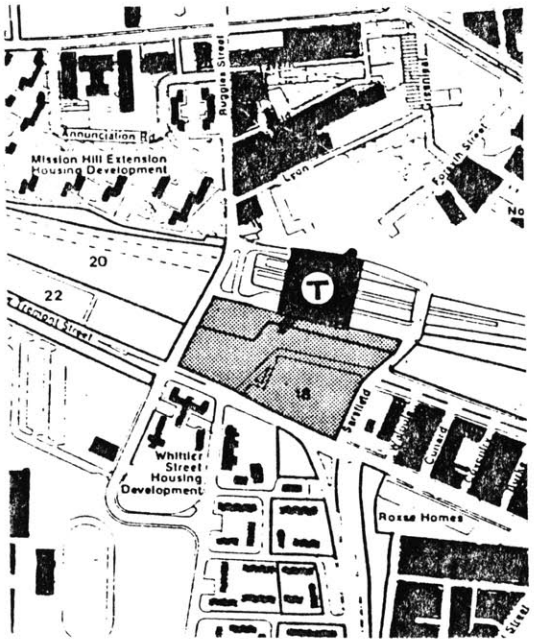
[3] Ibid., p. 534.

I

Design Preparation

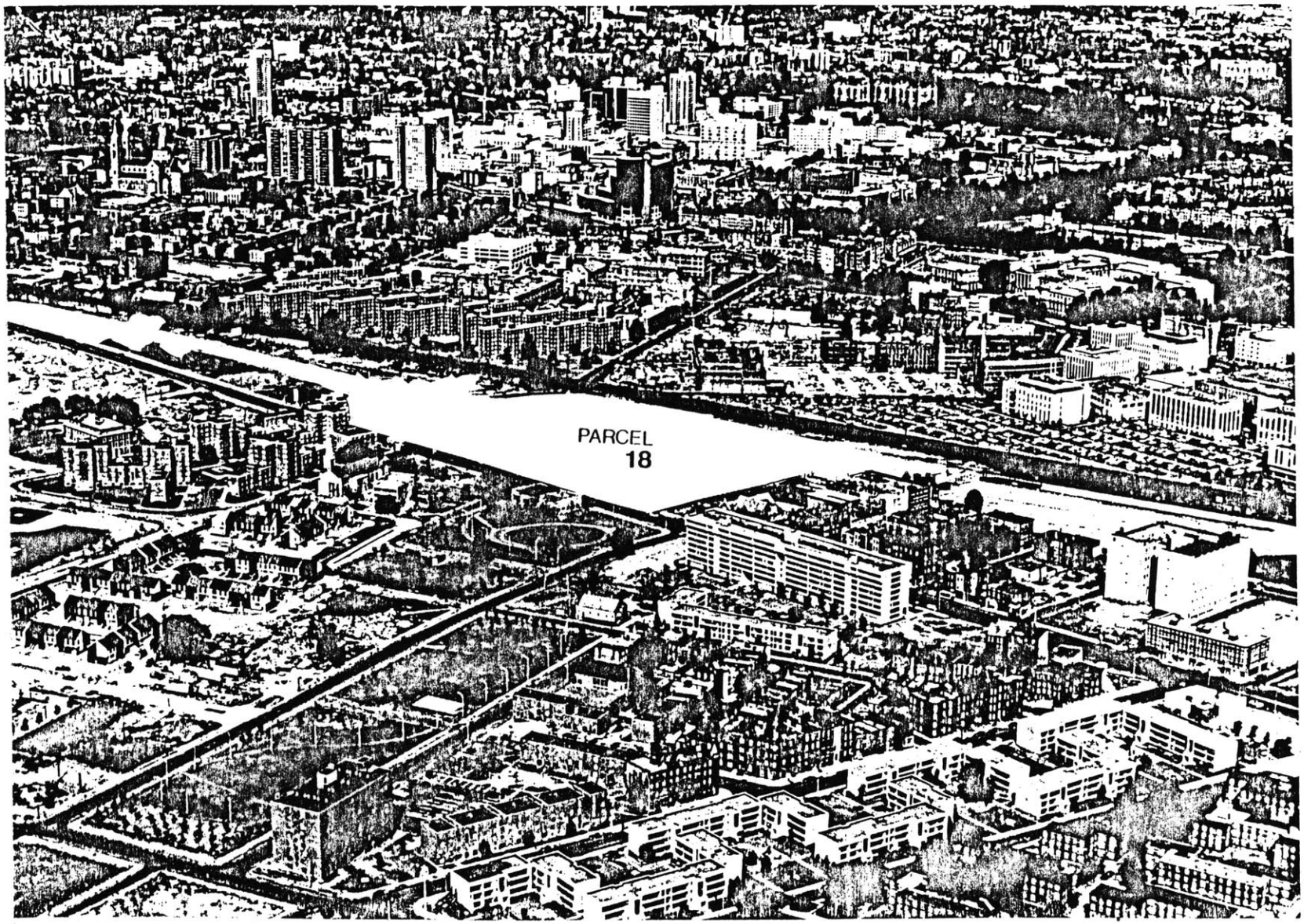
2 Site and Context

Site Description

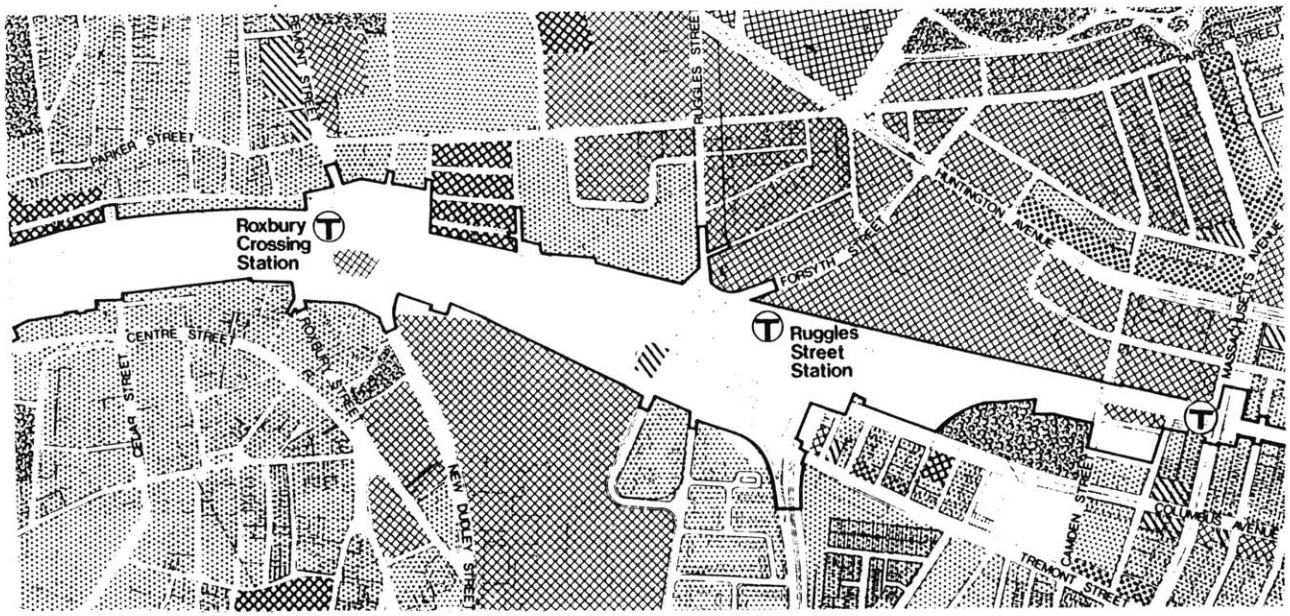


The site, commonly referred to as Parcel 18, is located in the Roxbury district in Boston on 5 1/2 acres of land originally cleared for an expressway. Roxbury, home to a largely black and low-income community, presents an unique challenge in introducing use intermixture.

Were it not for a decision to halt the construction of the expressway, the districts of Forest Hills, Jamaica Plain, and the South End including Roxbury would almost certainly now be sitting next to an eight-lane expressway. Instead, these districts presently abut a narrow strip of 108 acres of land cleared in 1966 in preparation for the Southwest Corridor. A strategy was adopted to relocate the Massachusetts Bay Transportation Authority (MBTA) Orange Line, presently operating on an elevated structure along Washington Street, to the proposed highway right-of-way. The new rail corridor will accommodate Amtrak and commuter rail services, as well as the relocated Orange Line rapid transit service. At the Northwest boundary of the site, a major inter-



"View of project area with cleared land for the Southwest Corridor Project."
Source: Boston Southwest Corridor Project



LAND-USE MAP

Legend

- Residential
- Open Space
- Commercial
- Mixed Use
- Institutional
- Industrial
- Vacant

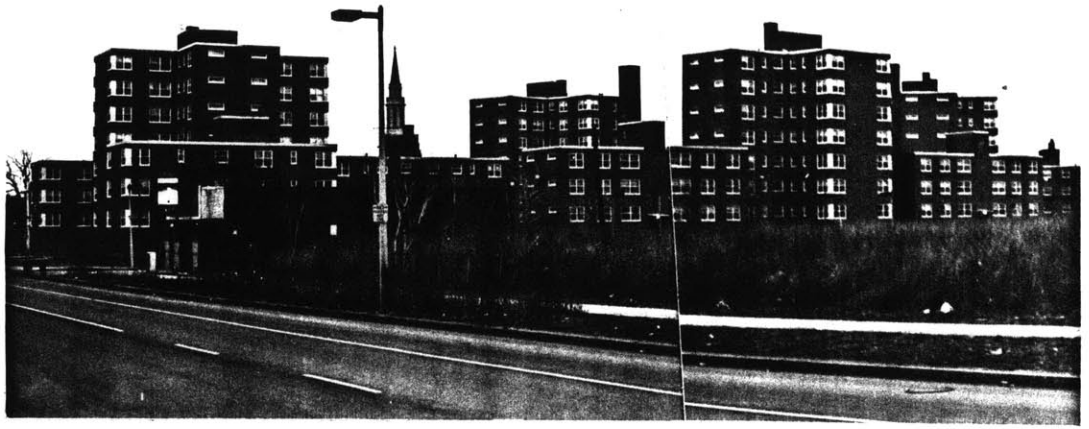
modal transportation facility will accomodate the rail lines, local buses, and automobile drop-off patrons. The train station known as Ruggles Street Station has already been designed and, for the purposes of this thesis, will be considered as existing.

Parcel 18 represents unusual mixed-use potential due to its excellent access to the regional transportation network, its size, the diverse surrounding land uses, and its close proximity to the many residential neighborhoods such as Mission Hill, The Fenway, Claremont, United Neighbors, and Madison Park. A number of large scale housing projects such as Bromley Heath, Mission Hill Extension, Whittier Street, Madison Park Townhouses, and Academy homes surround the site. In addition, there are several institutions in the immediate vicinity of Parcel 18. These include educational institutions such as Wentworth Institute, the central campus of Northeastern University, and the 5000 student campus of Madison Park High School/Occupational Resource Center. Throughout the rest of the area are several churches, a parochial school, two community health care centers, and the Museum of Fine Arts.

Above: Existing urban fabric in disrepair along Tremont Street

Saint Cyprian's Church in right foreground, site in backround with view of Mission Hill Extension beyond.

Right: Madison Park Townhouses



Above: Whittier Street Housing Project opposite Parcel 18 on Tremont Street.

Left: Adaptive re-use. This former industrial building now houses studio/living spaces for artists.

Industrial land use is dispersed throughout the area and concentrated on sites along the corridor. Most of the industrial sites are either vacant or underutilized.

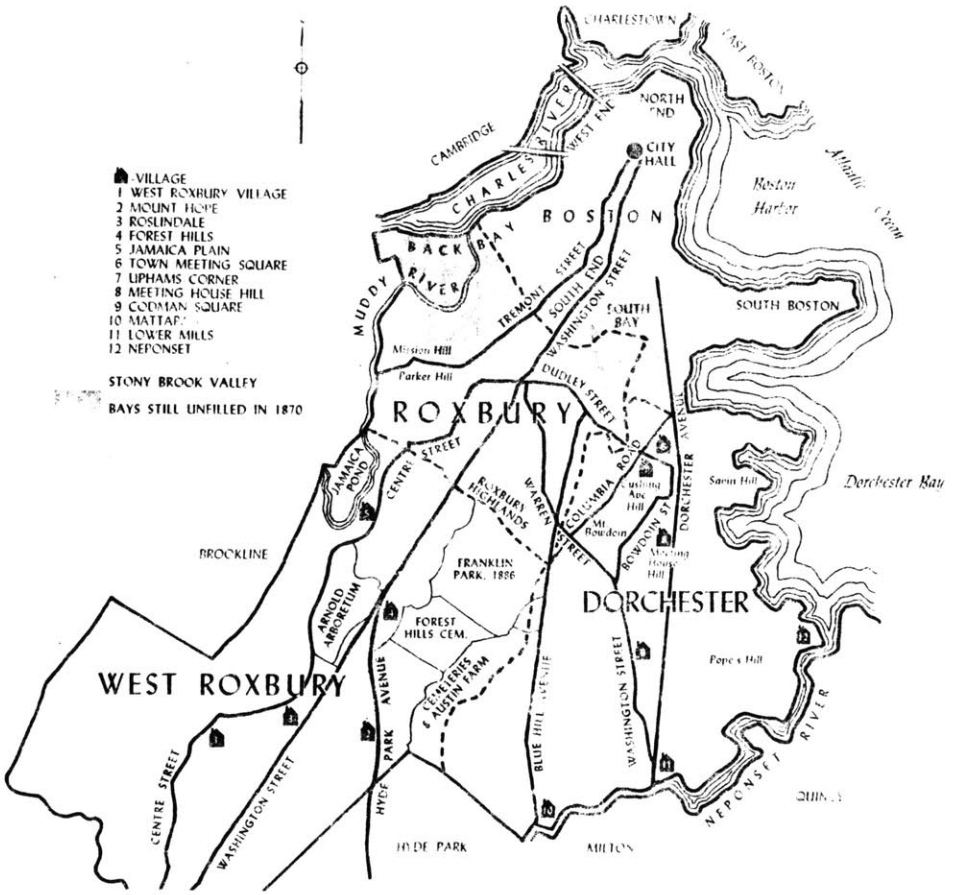
Commercial activity occurs primarily to the northeast of Parcel 18 along Tremont Street. Most of the commercial use is in the form of ground floor retail space and/or storefronts in residential structures.

Site History

The Stony Brook Valley area of lower Roxbury, founded in 1689, has had a long history of di-

verse land-use. While other areas of Boston have had to recently develop diversified land use, lower Roxbury and, in particular, the Stony Brook Valley has always accepted this feature as a way of life.

The valley of Stony Brook streches in one continuous line from the South End to Forest Hills and Mount Hope. The low elevation of most of the land made the entire area subject to periodic flooding by storm tides of the Atlantic Ocean and less frequently by floods of the Stony Brook River. The once troublesome Stony Brook River is now totally encased in a culvert which runs parallel to Washington Street and joins the Muddy River in the Back Bay Fens Park.



The three towns. 1870

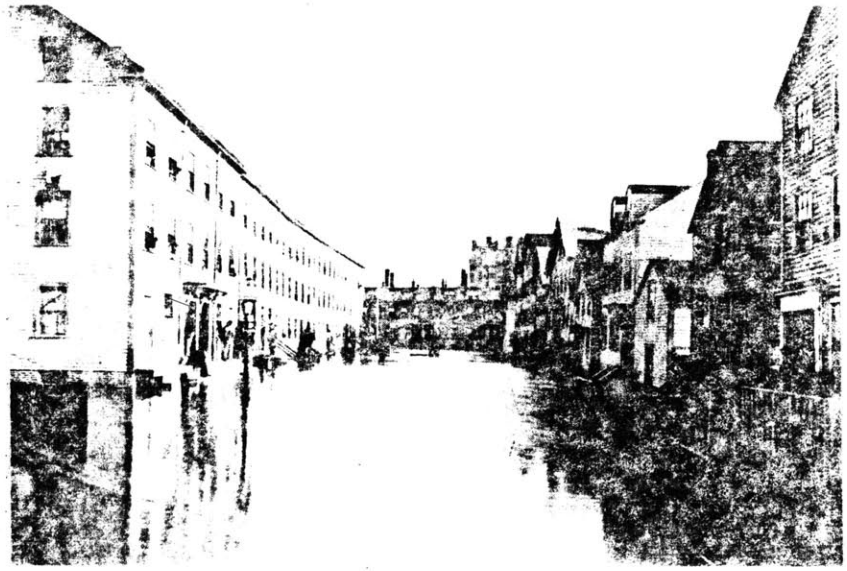
Unlike modern suburbs, Roxbury of the 1870's, did not have segregation of residences by classes. While the highlands were largely residential, the lowlands were a mix of industrial, commercial, and residential. Until 1873, there was continuous building of the city's housing stock and many classes were juxtaposed in lower Roxbury.

The town of Roxbury was developed from the patterns of the ole peripheal towns of the earlier walking city. In twenty years, from 1850 to 1870, Roxbury enjoyed a great industrial and building boom, but much of today's lower Roxbury was at this time the unfilled marshes of the Back Bay and South Bay. Along the edges of these marshes lived the poor of Roxbury, the Irish drawn by the cheapness of the land, the nearness to the manufacturing plants, and by the fact that it was within walking distance to Boston. The rest of the lowlands were shared by a variety of users. The largest concentration of the three town areas grew up here supported by the water and power from the Stony Brook River. Foundries, textile mills, piano works, clock companies, lumber and stone yards, and all types of commercial establishments appeared between Dudley Street and the Boston line.

From the years 1830 to 1840, a large number of rowhouses occupied by mill workers was constructed near the factories. By 1870 this area was the working class district, even the pauper and slum section of the city. These were not the the packed slums of Boston's North End with their large tenenments and dense populations, but rather a drab section of two and three story wooden houses and barracks such as could be found in any New England mill town.

When the lower middle-class moved with force into lower Roxbury their numbers alone brought about a complete occupancy of the land. Their settlement in the area created land-use patterns similar to the mixed environments typical of many of the industrial cities developed

during this period. The upper-class factory owners and merchants, the middle-class factory workers, and the lower-middle all lived within close proximity. of eachother. During the years a840 to 1870 the area along Tremont Street grew in the mixed form of the old peripheal towns. The more prosperous lived in tiny wooden single and double houses of the classic-revival style and in brick tenement buildings that were put up along the busy Tremont street thoroughfare. On the side streets, factory owners had erected two-and-a-half and three story wooden barracks for their employees on the flats near Ruggles Street.



Working class barracks circa 1850; picture taken during the great Stony Brook flood of 1886.

Today a number of public institutions and large-scale housing projects are located near the vicinity of Ruggles Street. Although strong tension exists between the institutions and local communities who resent encroachment on their territories, these institutions and communities have a continuing interest in the decisions related to the relocation of the Orange line and even more concern about the use of certain lands adjacent to the line.

3 Program Requirements

The program requirements were taken from Parcel 18 Area Development prepared by Charles Hilgenhurst Associates for the MBTA/Southwest Corridor Project, 1981. It is assumed that development will occur through a combination of private and public investment. It is also assumed that there is an adequate market to develop the program and that the program mix grew out of community participation.

COMPONENT	SQUARE FOOTAGE
Retail Space	177,000
Office Space	150,000
Hotel and Related Facilities	240,000 (300 rooms and 60,000 conference facilities)
Residential Units*	375,000 (250 units @ average of 1500- mix of 0-3 bedrooms.)
Other Miscellaneous Components	60,000

*Residential component added to original program.

Total Gross Building Area	1,002,000
FAR	3.04
Parking	500 spaces

4 Use Intermixture

Design Criteria

The following list of design criteria forms the basis of my investigation into the relationship of physical form and building organization in facilitating a closer grain intermixture of activities. The criteria was taken from An Urban Design Strategy for Use Intermixture by L. Rudolph Barton which establishes "interrelational design criteria for maximum use intermixture." The findings are generalized so that they can be applied to a wider variety of cases as indicated by the program for Parcel 18. The generalizations of the criteria are then placed into a matrix of use versus use according to their applicability. The matrix as shown on page indicates the complexity of a design exploration where the establishment of interrelationships of uses are the major focus. Although there are only written patterns for the interrelationships of housing, the matrix gives one the entire scope of use interrelationships in mixed-use design.

1. Provision for individuals and/or families of varied, ages, incomes, and social backrounds.
2. Organization for promotion of social integration.
3. Shared paths for promotion of social integration.
4. Clear delineation of territorial and spatial heirarchy.
5. Direct ground floor access. Limit on number of units accessible from each entry and from interior circulation paths.

6. Uses clustered in support of one another.

7. Separation of parking and other major servicing

Use vs. Use Matrix

Housing	Commercial	Office	Institu-tional	Transp	
1,2,3, 4,5	3,4,5, 6,7	3,4,7	1,2,3, 4,9	3,4,7	Housing
	3	3,4	3,4,5, 6	3,4,6	Commercial
		2,3	3,4,6	3,4,6	Office
			1,2,3, 5,6	3,4	Institu-tional
				3	Transp

Design Patterns

Following Christopher Alexander's A Pattern Language, the following patterns first describe the design principle to the problem, then gives a discussion of considerations leading to a set of recommendations to the problem's solution. The design patterns are meant to be a tool for programming a mixed-use project, particularly in regard to the socio-spatial intermixture of activities. The patterns are essentially fragments of design solutions employed by other designers. These design solutions were judged as exemplary.

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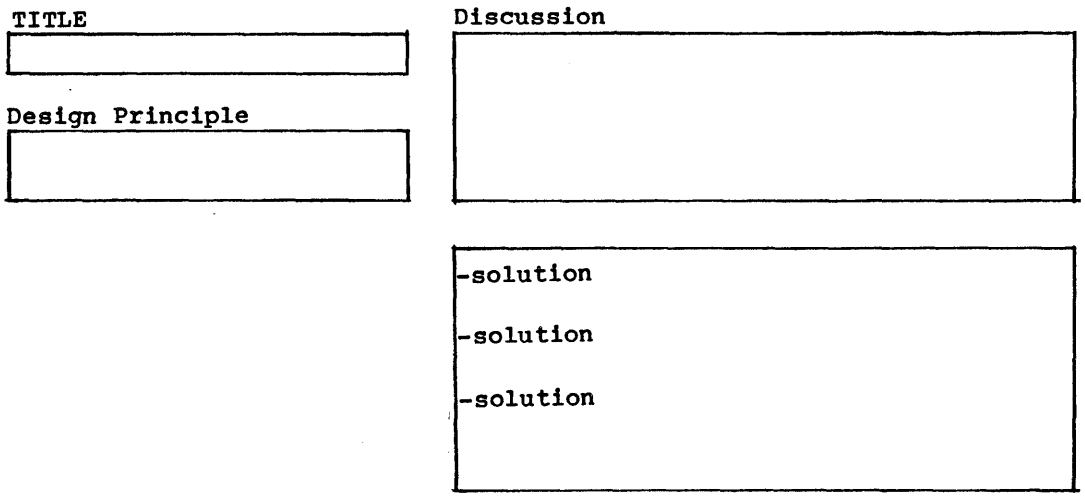


HIERARCHY OF TERRITORY AND OPEN SPACE IN HOUSING

The clear delineation of territorial and spatial hierarchies help to create shared living environments where residents have a choice regarding the level of interaction with neighbors.

The interaction between residents in housing developments occur outside the privacy of the dwelling unit. A hierarchical arrangement of territory and space from private to public helps to establish domains in which residents can interact. These domains provide an ordered sequence of meeting grounds from the intimate and small-scaled to the open and large-scale. These domains insure residents a choice regarding the desired level of interaction with neighbors thereby making it possible to give an encounter an added dimension of meaning according to the particular domain that one chooses to linger in. In high density housing, the delineation of territory becomes increasingly more difficult for the individual or group to accomplish especially when the development consists of rental housing. Clear delineation of territorial and spatial hierarchies help in reducing conflicts between residents.

- define areas of activity along hierarchy through their juxtaposition with interior living areas of dwelling units.
-create a sequence of spatial hierarchy from private to public by making at least one smaller space which looks into a larger space; continue the sequence by placing the larger of the two spaces adjacent to an even larger space with a view into that space.
-place symbolic barriers between spaces to help reinforce and differentiate each space by introducing gateways, light standards, plantings, and changes of surfacing, levels, light, direction, and enclosure.

SHARED PATHS IN HOUSING

Shared pedestrian paths leading to housing clusters encourage neighbor contact and help foster a sense of community.

Neighbor contact tends to be greater when dwelling units share a common pedestrian path. If the household mix is established according to tenants need to be near people similar in age and lifestyle, they will probably welcome opportunities for casual neighboring. Such contacts will most easily take place if a group of neighbors share a common pedestrian path which is frequently used by residents. A sense of community arises from meeting and knowing neighbors and being able to distinguish residents from strangers. It is essential that a delicate balance be struck between the need for community and the need for privacy.

-locate paths between housing clusters and locations of shared facilities (parking, laundry room, storage facilities, etc.) and points of access to the outside public.
-avoid intersection of paths with other non-housing circulation (paths).
- provide places for sitting and stopping along the way.
-locate common areas tangent to paths rather than to run paths directly through common areas.

DWELLING ORGANIZATION

The overall arrangement of the housing block will greatly influence the level of sociability occuring within its confines.

The housing element is a concrete manifestation of a social institution containing yet smaller groups within it. The way in which the smaller groups are arranged within the larger structure must be seen as the reference point in organizing the housing element. People need to feel that they have some direct control over the public land between them. This idea occurs when a group of living units form clusters around public land "owned" by all of the living units. Cluster arrangements encourages friendly interactions.

- arrange living units to form clusters around some common land or circulation.
-in housing with up to 4 or 5 story limit, build a hill of houses connected with a great central open stair connected to semi-private ground.
- in housing greater than 4 or 5 stories, provide some direct visual connection to the street or semi-private land or open space in at least two directions so that residents will be encouraged to leave their apartments for public life.
-provide common space for families and individuals where shared functions can occur or a place where groups that make up the extended family can meet and sit together. This is particularly crucial in housing the elderly because their housing area needs are often limited. Consequently, a place to entertain relatives in a comfortable and spacious area is critical.

HOUSEHOLD MIX

A balanced mix of housing for individuals and families of varied ages, incomes, and social backgrounds should be included in the scheme.

Household mix is essential in generating possibilities for encouraging and sustaining human contact. In housing where the household mix is varied, each person can find at least one passing contact with people from various stages of life. Integrated housing, as we are well aware of, is an anathema in Western society. This is especially the case with the elderly who are often isolated in special institutions such as elderly housing or homes for the aged.

The housing mix should be considered in respect to tenants need to be near people similar in age and lifestyle. Consideration given to both needs will help in formulating the right balance for the housing mix.

- use the Roxbury area as a standard in determining the percentage of each household type.
- use the same percentages to guide the housing mix in the residential element of the project.
- apply the mix to clusters of living units small enough to have some internal political and human impact--perhaps, a cluster of 15-20 units.
- encourage a housing mix that is horizontally integrated (side by side) rather than vertically.

ACCESS TO DWELLINGS

The form of access appears to have crucial implications for sociability and feelings of loneliness.

Access refers to the area--outdoor or indoor--traversed between the entrance to a group of dwellings and the front door of the dwelling itself. Dwelling access is a crucial connection between public and private spaces. It is where interests converge and may cause conflict. It also is a place where casual socializing can occur. Ideally, the preferred form of access is a private entry at grade, leading through a semi-private transition space such as a yard, porch, or patio. In such situations, people feel more at home on their own territory than in public access. Therefore, one is better able to make initial casual contact.[4] In multi-family high-density housing it is virtually impossible to provide each dwelling unit with private on-grade entries. Access to dwelling units via shared indoor spaces becomes unavoidable although they too can be important places for casual socializing if treated appropriately. Such places tend to be viewed as more conducive to casual socializing when the number of units using the entry is limited. These limitations have the effect of creating territory that is more intimate and less public.

- limit the number of units accessible from each entry
- limit the number of units accessible from interior circulation paths such as stairwells, elevator foyers, and corridors.
-avoid long corridors which give an impersonal and institutional feeling.
- provide ground floor access for 3+bedroom units.

- provide semi-private transition spaces at access points between the privacy of the home and the publicness of the accessway either in the form of a canopy over a front door or a recessed space off corridors.

5 Site Development

Goals

I. CIRCULATION

-To reinforce street activity along existing major movement systems.

-Creation of movement systems to connect primary activity centers and cores.

II. IMAGE

-To define project area and create a sense of place.

III. MASSING

-Maintain human scale along major pedestrian routes.

IV. LAND USE

-To unite physically separated and functionally distinct surrounding areas.

Objectives

I. CIRCULATION:

-To encourage a cross-corridor connection as a primary pedestrian movement system free of vehicular conflicts.

-To clarify auto access, circulation, parking and pedestrian circulation and provide direct accessibility and convenient parking for transportation center and site.

II. IMAGE:

-To maintain consistent massing and land uses along existing streets.

-To differentiate program elements in form, scale and character.

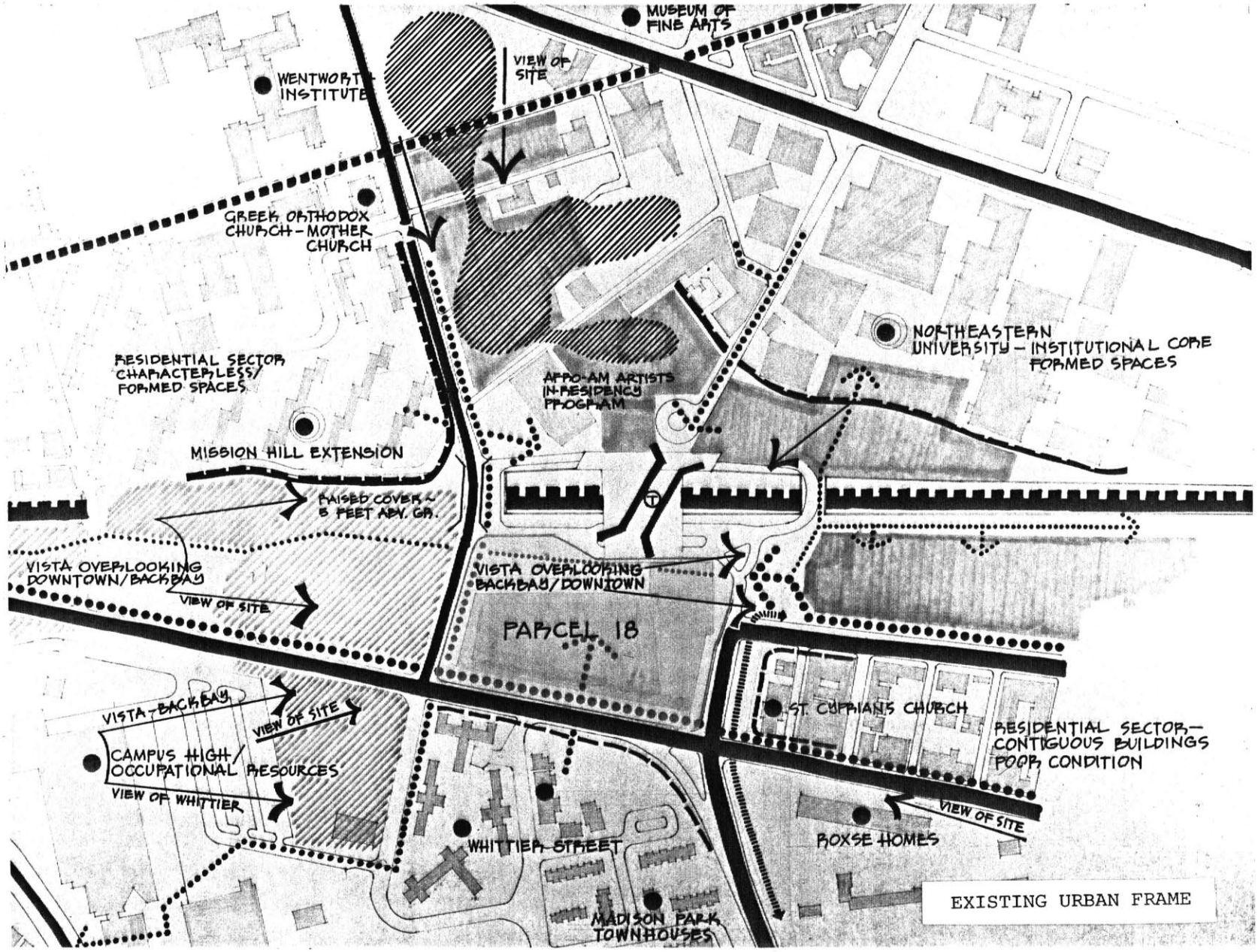
III. MASSING:

-To limit the extent of high rise development; ideally no buildings over five stories high.

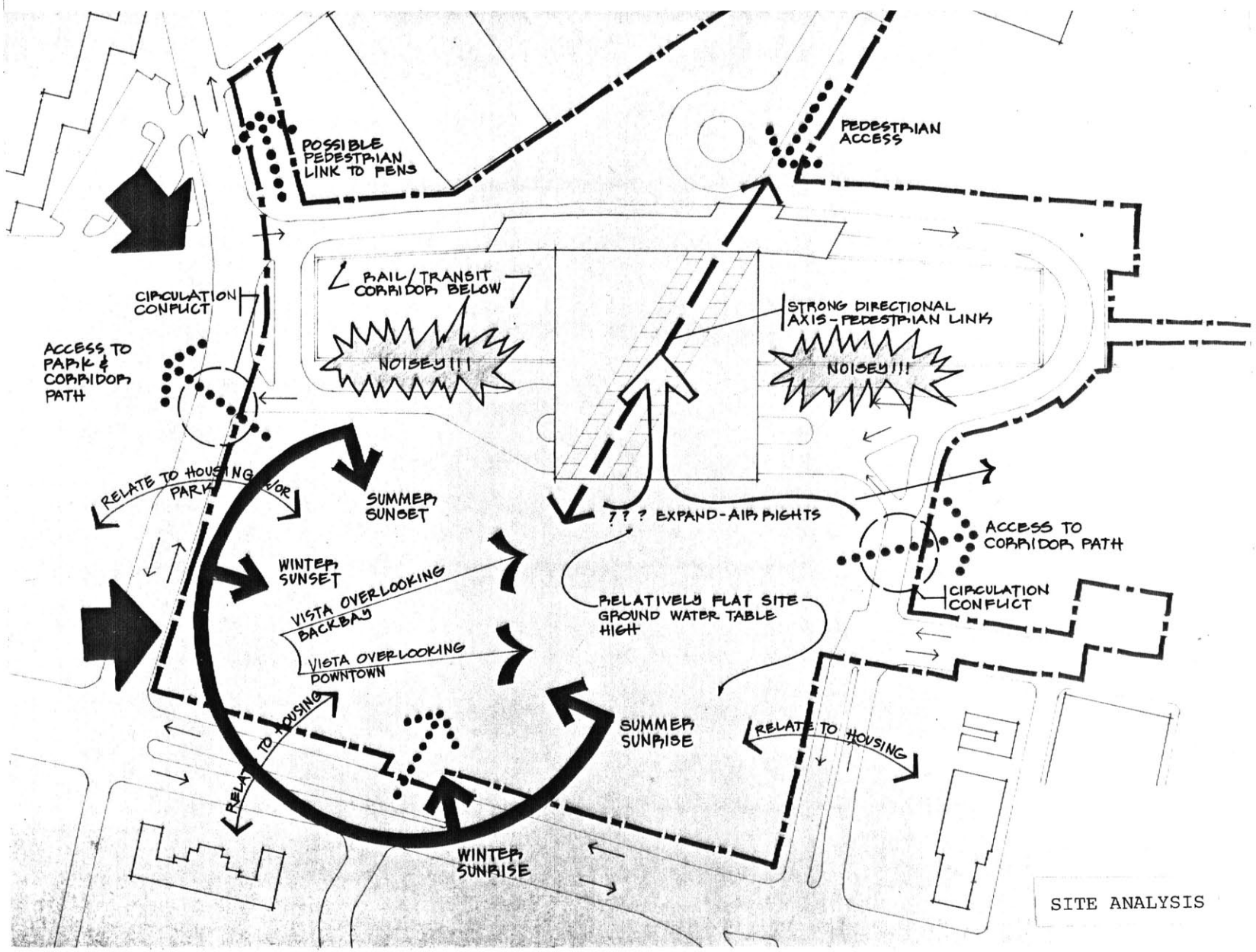
IV. LAND USE:

-To encourage appropriate future development in adjacent areas by maximizing the socio-spatial intermixture of activities at seam from which adjacent areas can draw new stregnth.

-To encourage diversity of activity along movement system that will complement adjacent public spaces and provide for shared experiences.



EXISTING URBAN FRAME


POSSIBLE PEDESTRIAN LINK TO PENN
PEDESTRIAN ACCESS
RAIL/TRANSIT CORRIDOR BELOW
NOISEY!!!
CIRCULATION CONFLICT
ACCESS TO PARK & CORRIDOR PATH
STRONG DIRECTIONAL AXIS - PEDESTRIAN LINK
NOISEY!!!
RELATE TO HOUSING
PARK
OR
SUMMER SUNSET
??? EXPAND-AIR RIGHTS
ACCESS TO CORRIDOR PATH
WINTER SUNSET
VISTA OVERLOOKING BACKBAY
VISTA OVERLOOKING DOWNTOWN
RELATIVELY FLAT SITE GROUND WATER TABLE HIGH
CIRCULATION CONFLICT
RELATE TO HOUSING
SUMMER SUNRISE
RELATE TO HOUSING
WINTER SUNRISE
SITE ANALYSIS

View of site showing BackBay to right and Northeastern University to left.

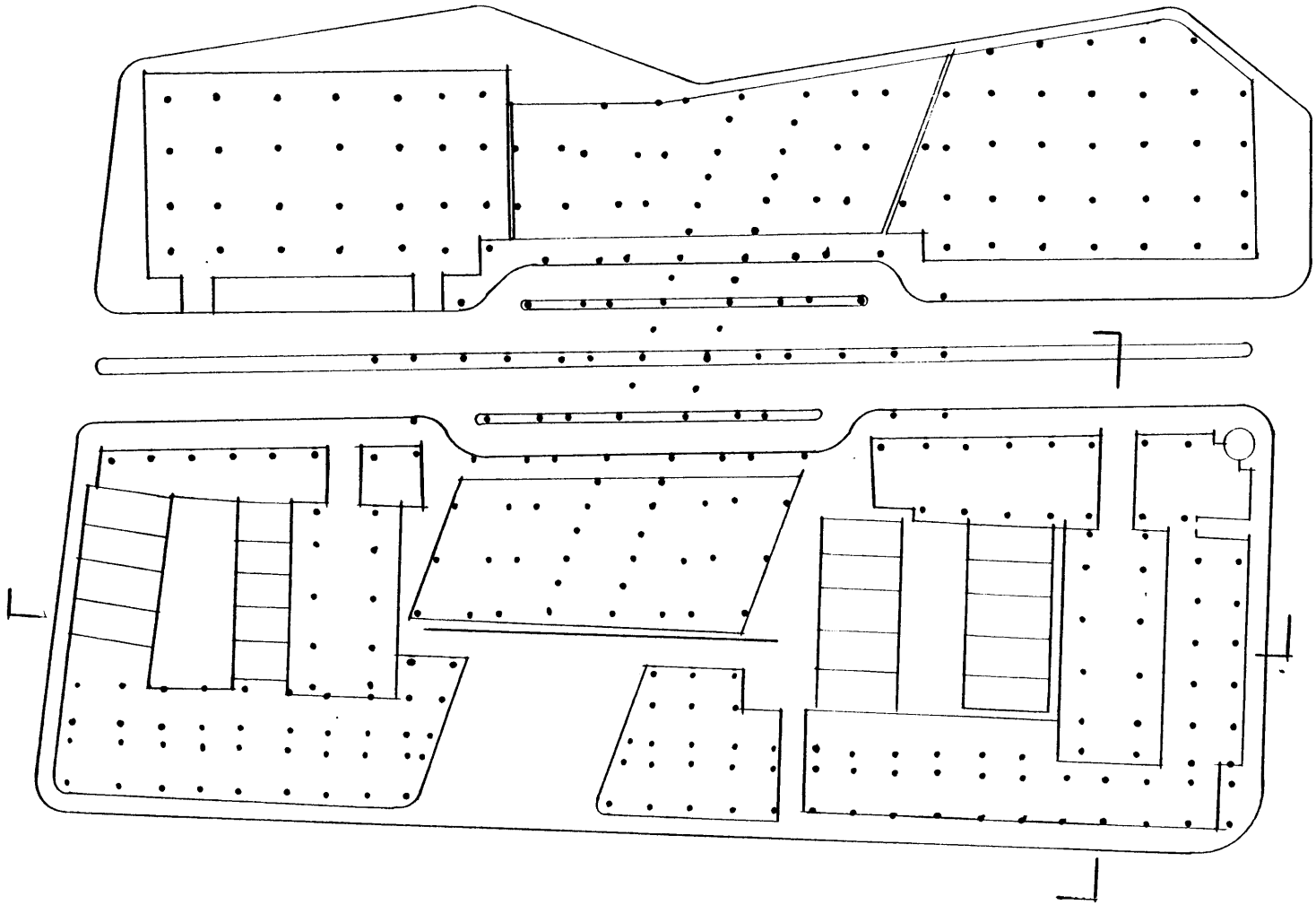
View of site looking east showing former Ruggles Street corner.

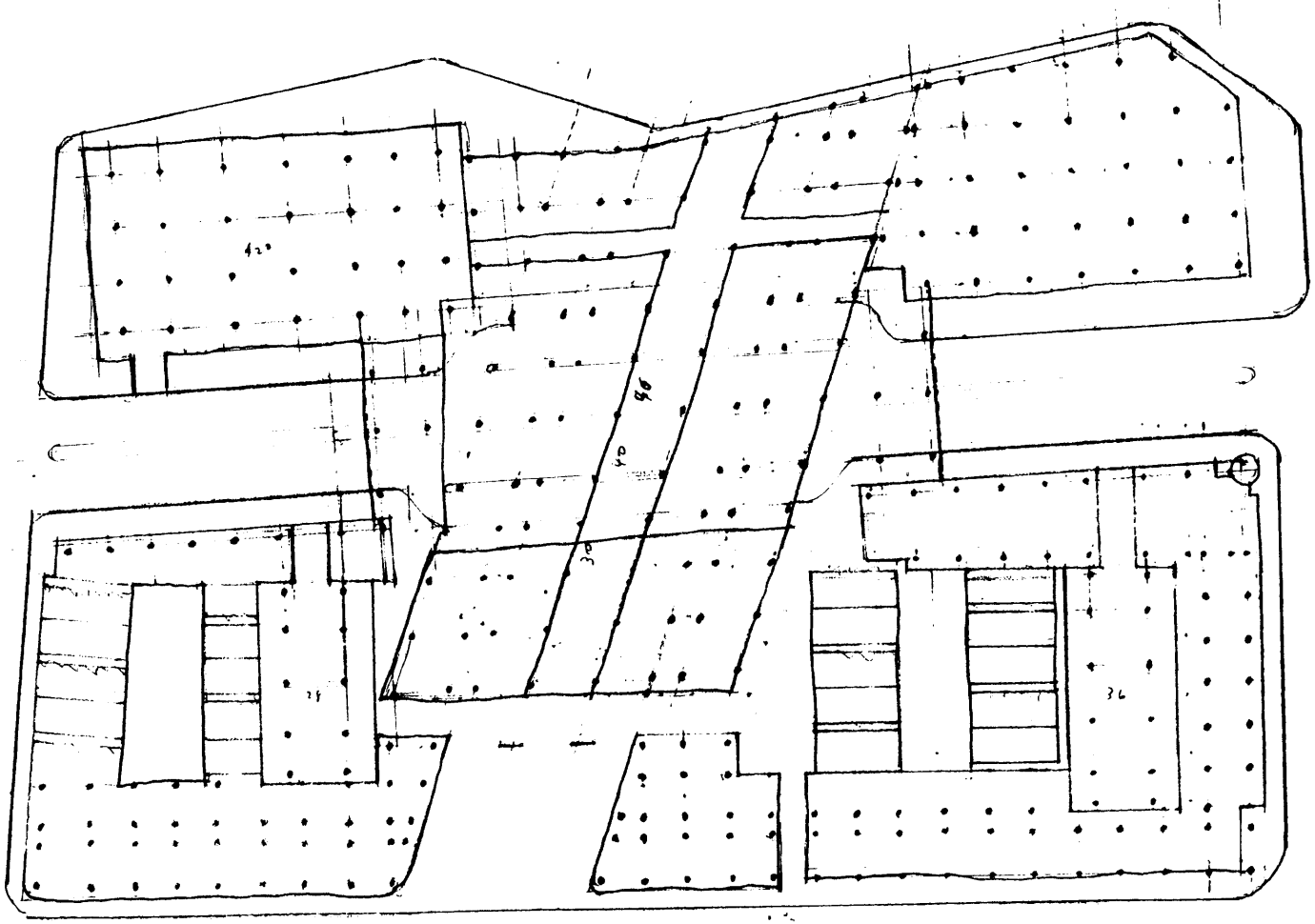
View from site looking west to the Mission Hill Housing Projects.

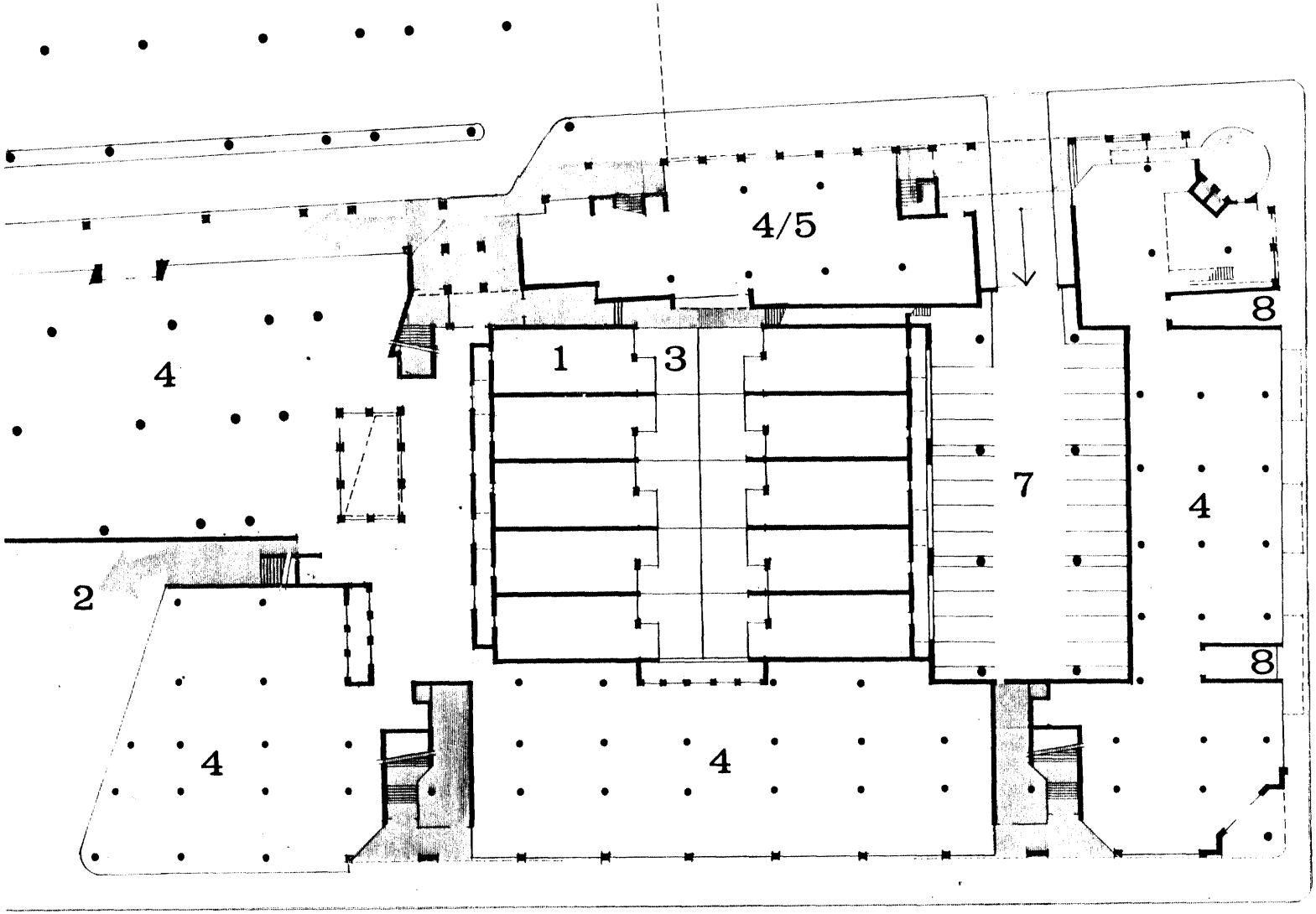
View of site from Southwest corner of Tremont Street.

II

Building Development

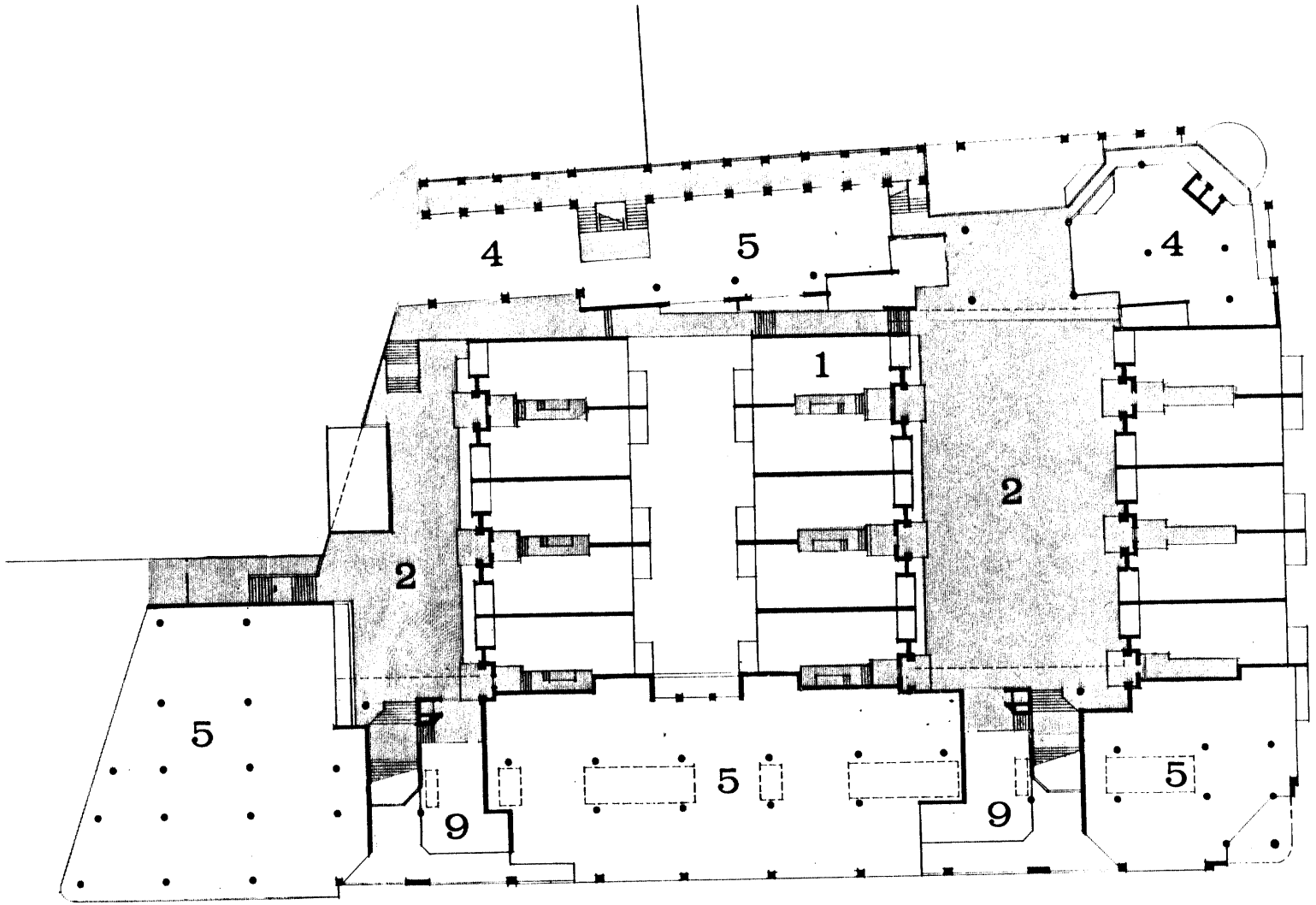




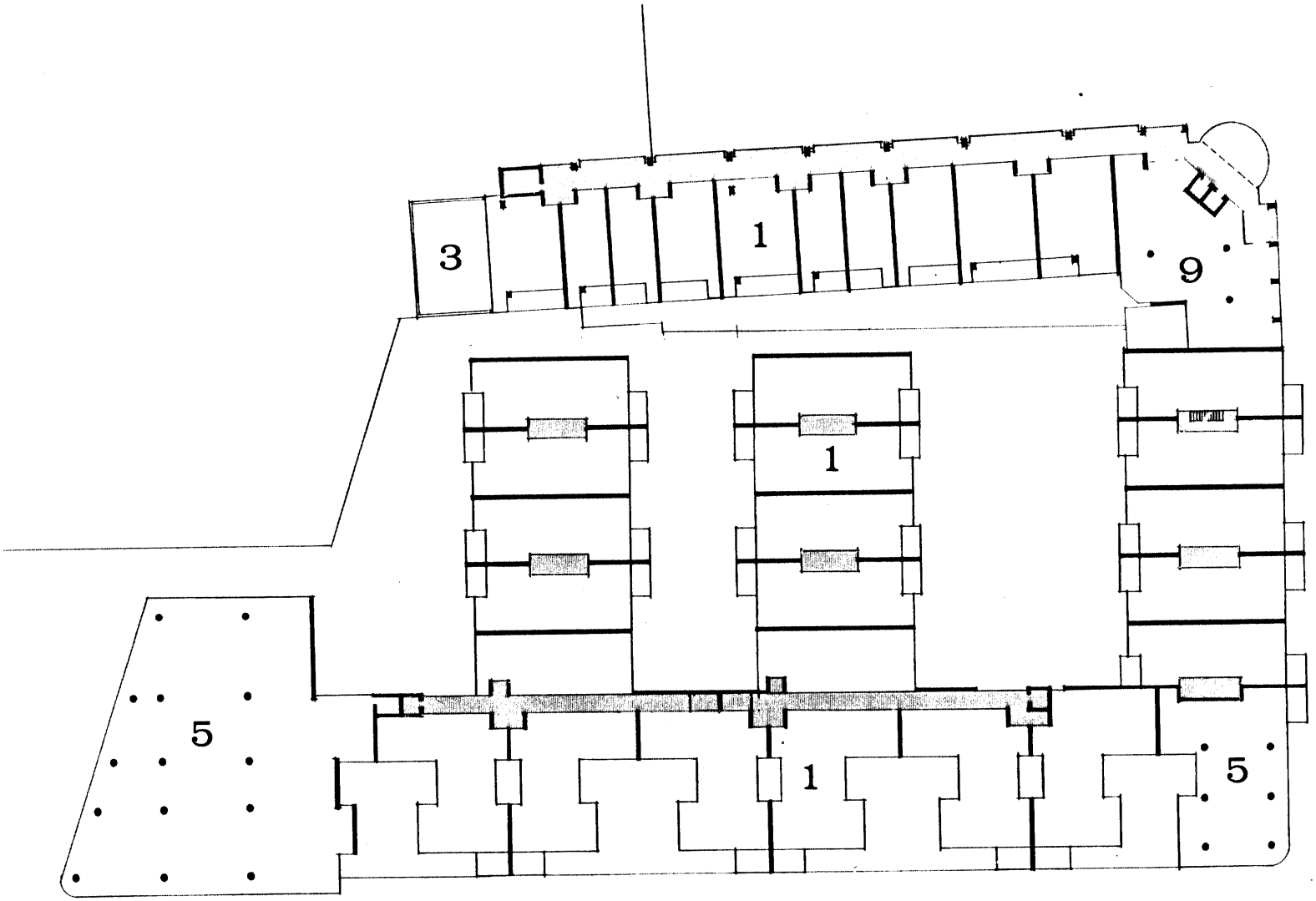


1 Residential Unit
2 Courtyard/Plaza
3 Private Outdoor Space
4 Retail
5 Office
6 Hotel
7 Parking
8 Service
9 Community Facility

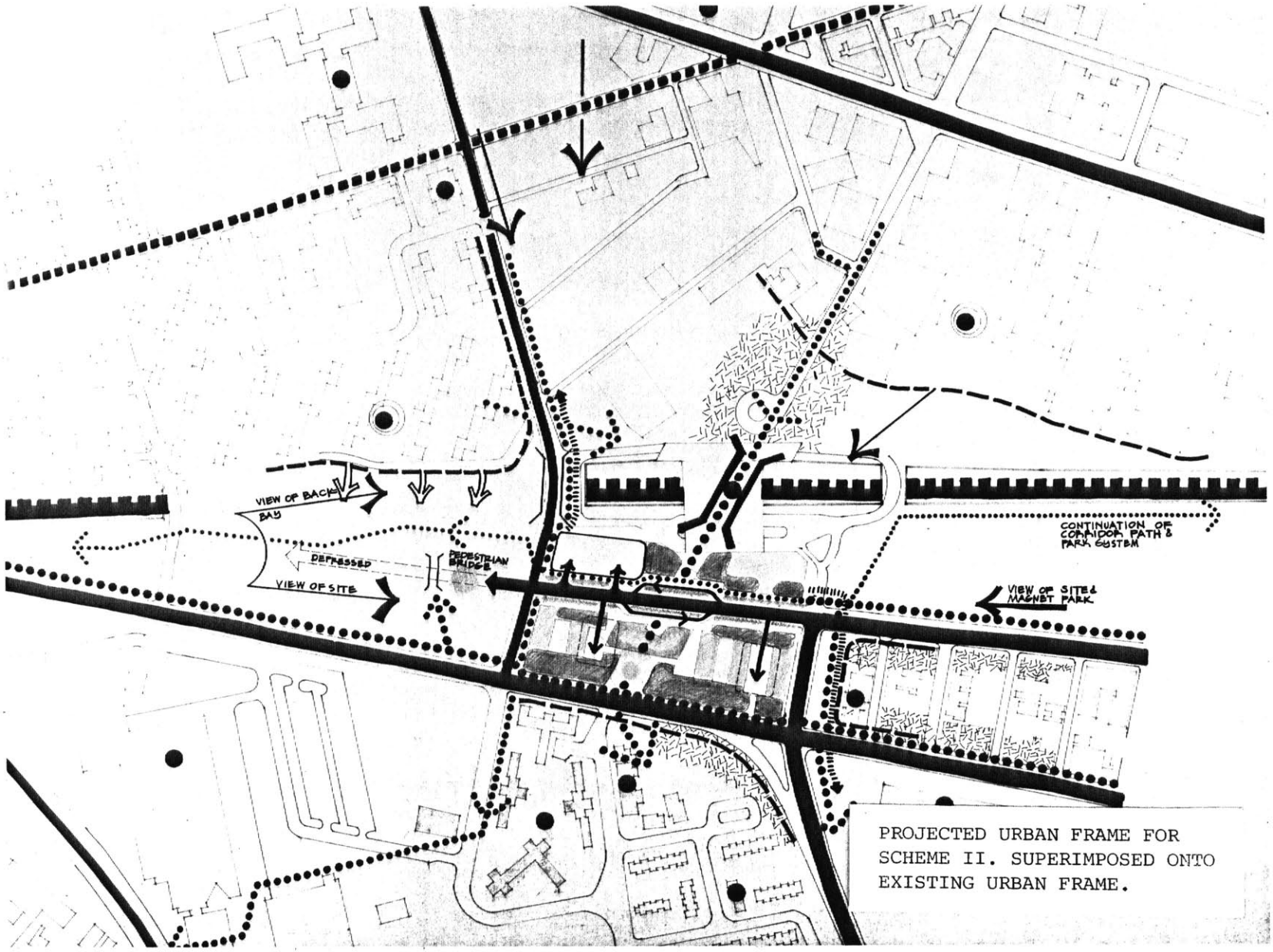
Ground Level G



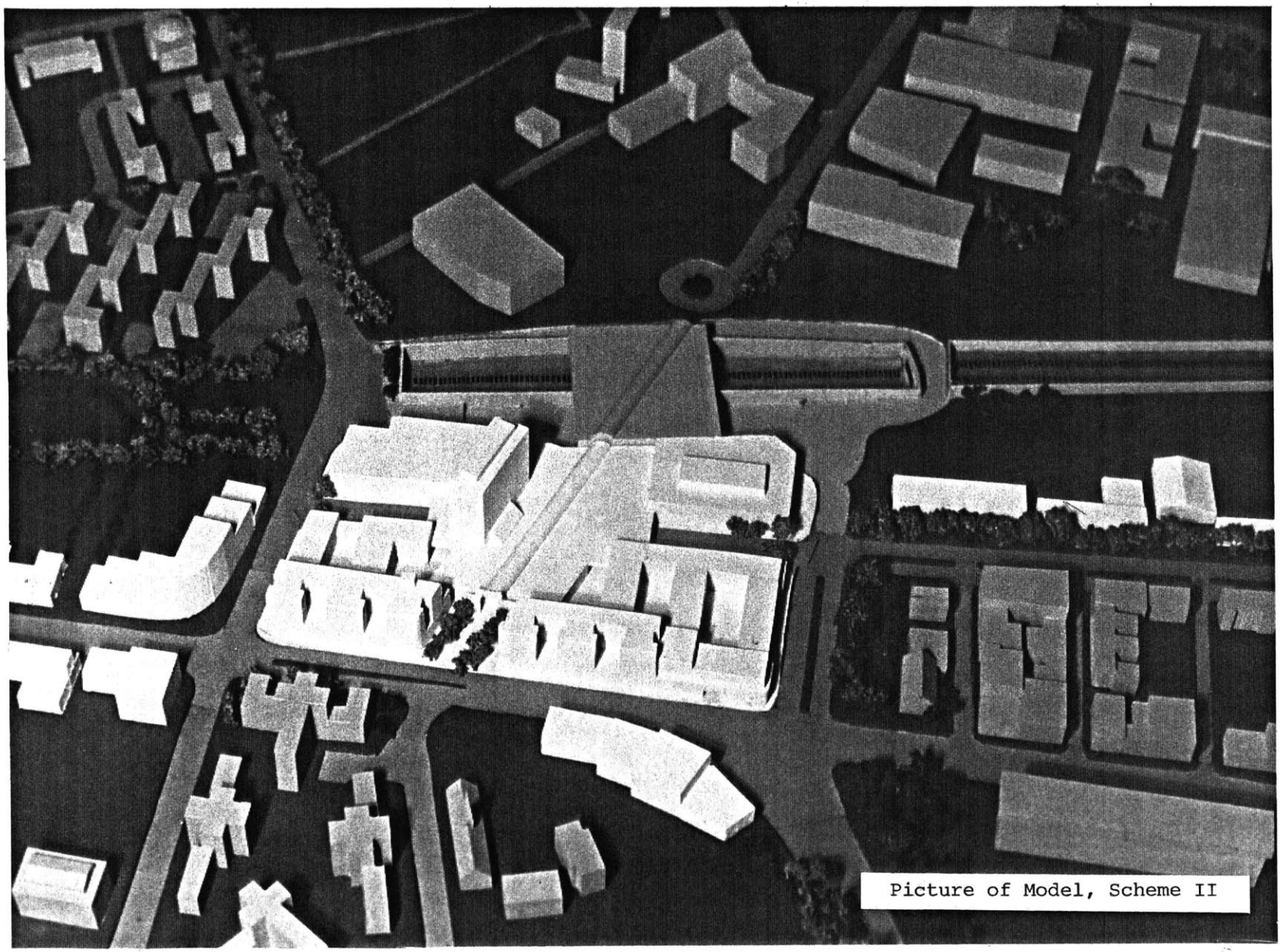
Level 2



Level 3



PROJECTED URBAN FRAME FOR SCHEME II. SUPERIMPOSED ONTO EXISTING URBAN FRAME.



Picture of Model, Scheme II

Conclusion

The effects of the multiplicity of goals implied by use intermixture has, to my knowledge, no typological model. The creation of a singular building that reflects and communicates the nature of its diverse functions was one of the primary motivating forces which encouraged me to explore the possibilities in mixed-use design. From a purely architectural point of view, without these two aspects of expression being considered, the building becomes only a sum of its separate parts--not a fully integrated totality. The purpose of communicating and reflecting the diverse urban functions of a mixed-use building is to heighten ones awareness that parts of our cities are alive and accomodating a variety of purely human goals and purposes; and, that these goals represented in a physical structure can bring about a renewed sense of purpose and place to the city and its diverse population.

The effect of building organization and form is an important factor in facilitating the socio-spatial intermixture of activities. For instance, in schemes I and III, a plaza with various uses surrounding it becomes a focal point for building users to come together and relate to one another. These plazas represent the "old town square" where many people converge. In scheme I, the plaza serves as a magnet or activity center to draw people to the extreme southern portion of the site, while open-

ing on to the street as a welcoming gesture to the residential communities south of the site.

Structure and circulation are the prime generators in facilitating use intermixture. These generators are the major infrastructure giving order to the built form and attracting to itself spaces for communication, encounter, and social interaction. The circulation system becomes the permanent part of the building from which the more flexible use spaces are arranged. Along with the circulation system, the other elements of permanence--columns, piers etc.--locate themselves to heighten the image quality and sense of place. In all three schemes, the major pedestrian spine in various form link the train station, the site, and the existing pedestrian movement system along Tremont Street.

The design exploration in this thesis raises architectural and planning issues that warrent a closer examination before they can be embraced in an actual urban situation. The concept of an intimate overlap of diverse activities in the promotion of human interaction and development, is one that has the potential to have a profound impact on the quality of life within the urban context. The product of the design exploration is in no way put forth as a panacea for the deeply entrenched social, economic, and political problems that inner city residents face. Certainly, a great many of these problems are outside the scope and potential of an architectural solution. However, the design exploration does indicate that urban design and planning can be more responsive to issues involving human interaction and development.

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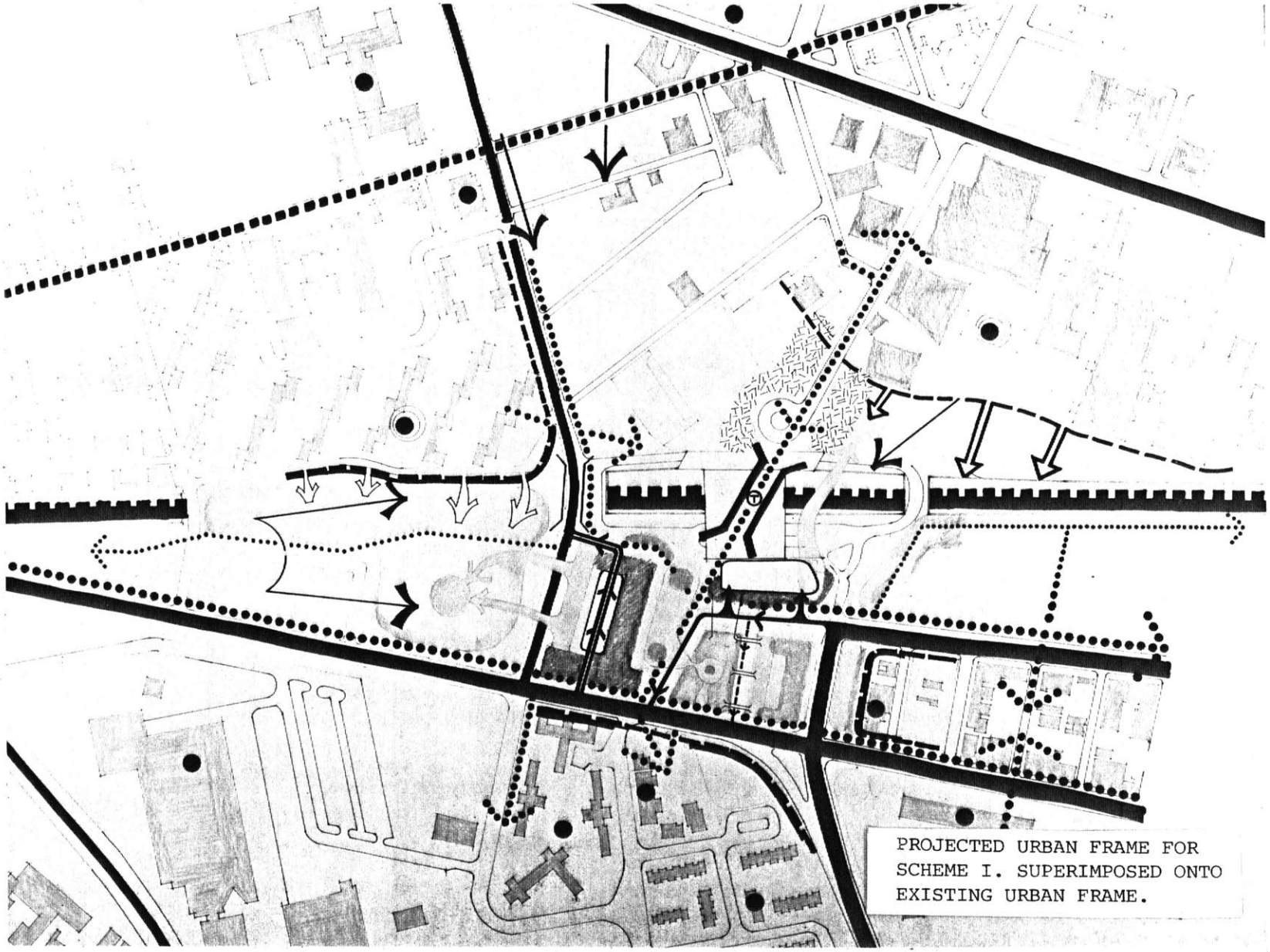
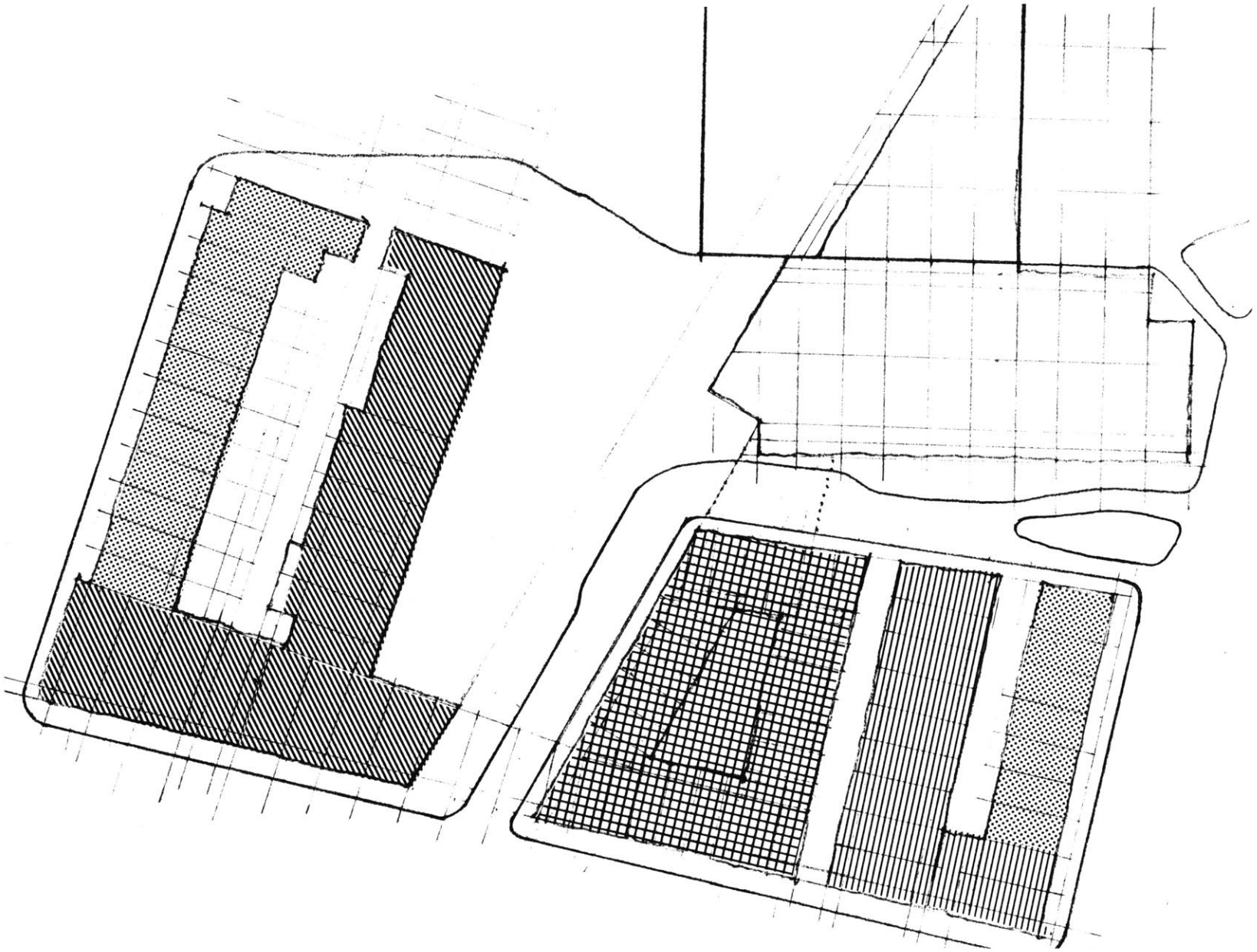
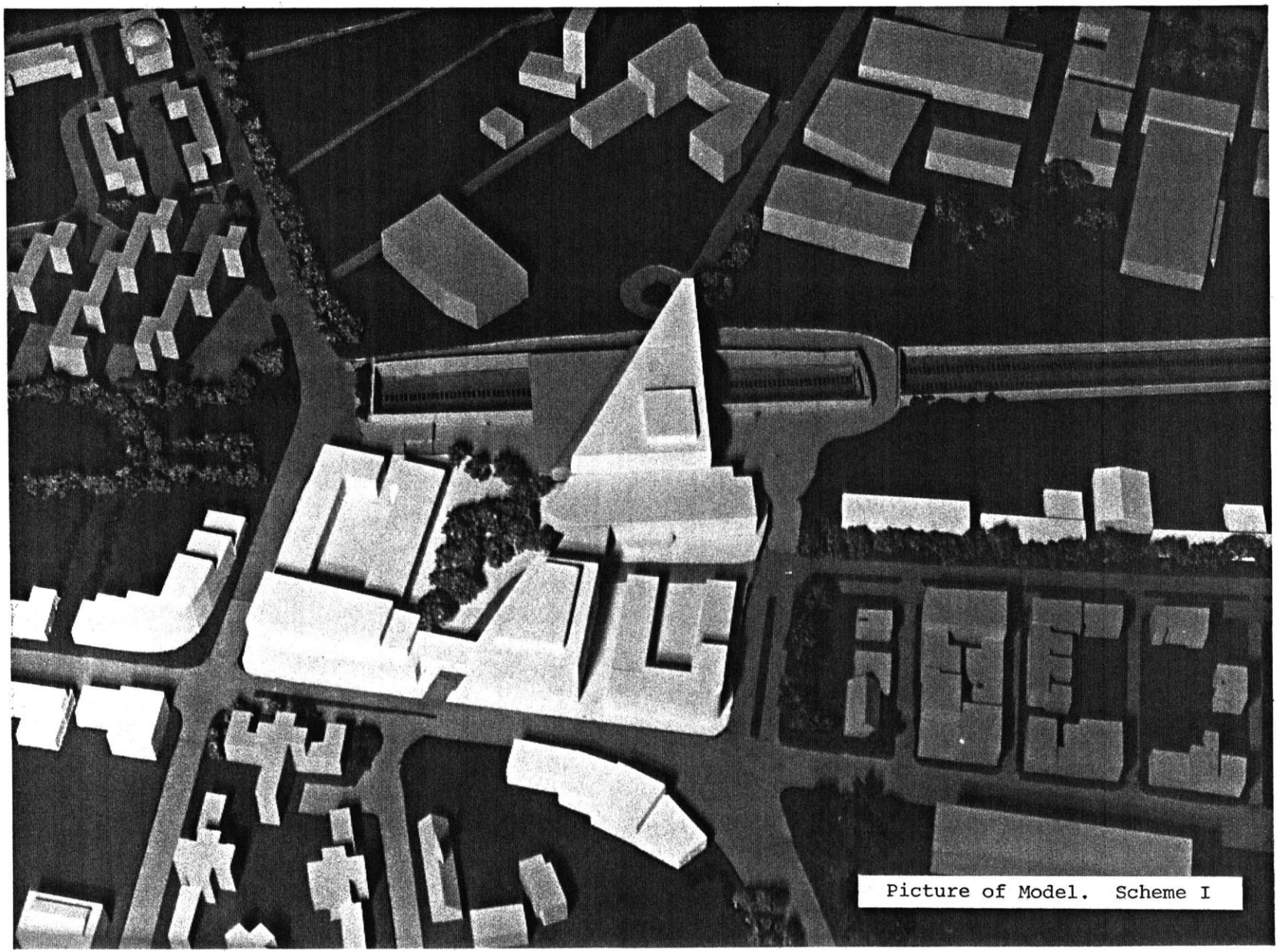
Appendix

Alternate Design Schemes

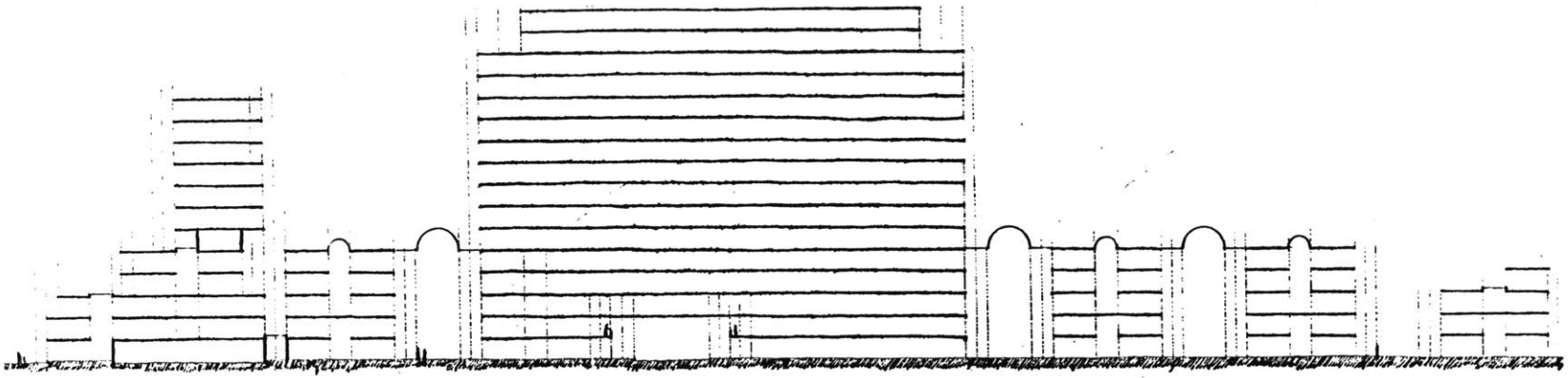


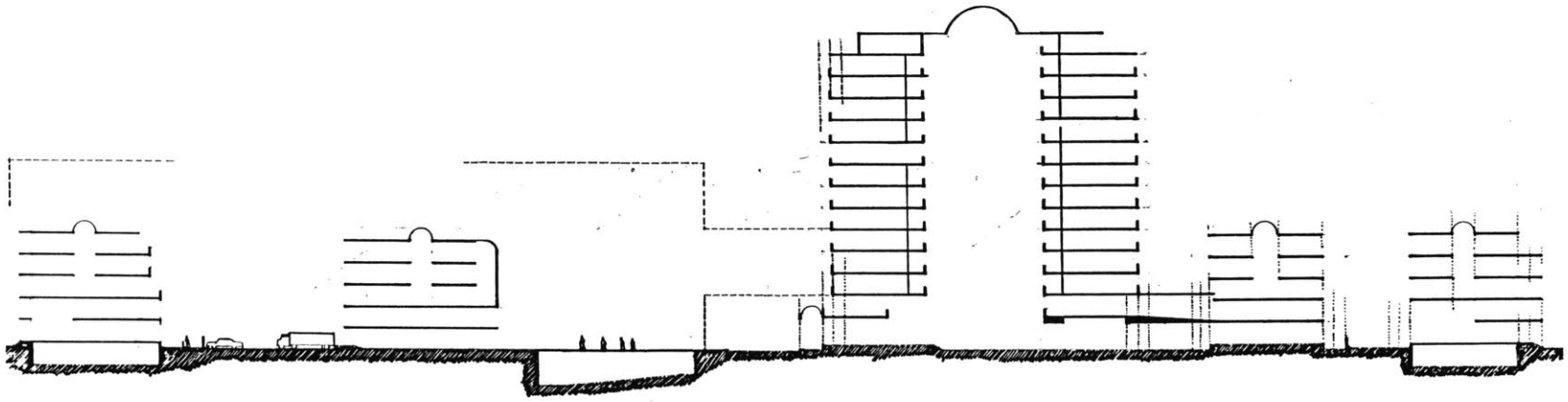
PROJECTED URBAN FRAME FOR SCHEME I. SUPERIMPOSED ONTO EXISTING URBAN FRAME.





Picture of Model. Scheme I





Picture of Model. Scheme III