

Reclaiming No-Man's Land: A Case Study in the Utilization of Expressway Land-Scraps

by
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B.A. Hampshire College
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Submitted to the Department of Architecture in partial fulfillment of the
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ABSTRACT

The motive behind this thesis is to attempt a solution to a particular, seemingly intractable urban architectural problem, and in the process generate technical innovations, architectural forms and methodological approaches which potentially can have more general application.

The chosen site is a tangled intersection of expressways in the center of Boston. A plan is developed for the construction of a complex of new social spaces literally enveloping the expressway, incorporating the spaces above and below ramps and highway spans.

There are two particular insights which infuse this project as a whole: The first is an understanding that the numerous negative characteristics imparted by urban traffic to their surroundings highways can be overcome through innovation. The second is that such spaces also have quite positive and unique properties which can be culled out and enhanced. Within the thesis, specific proposals are advanced for the mitigation of problems such as fumes, noise and vibrations; at the same time, there is a concerted effort to utilize the highway itself—the roof it provides, the erratic lighting, and other features—in such a way that it is integrated into the new structures and contributes both aesthetically and practically to their functions.

Thesis Supervisor: William Porter
Title: Professor of Architecture and Planning

PREFACE

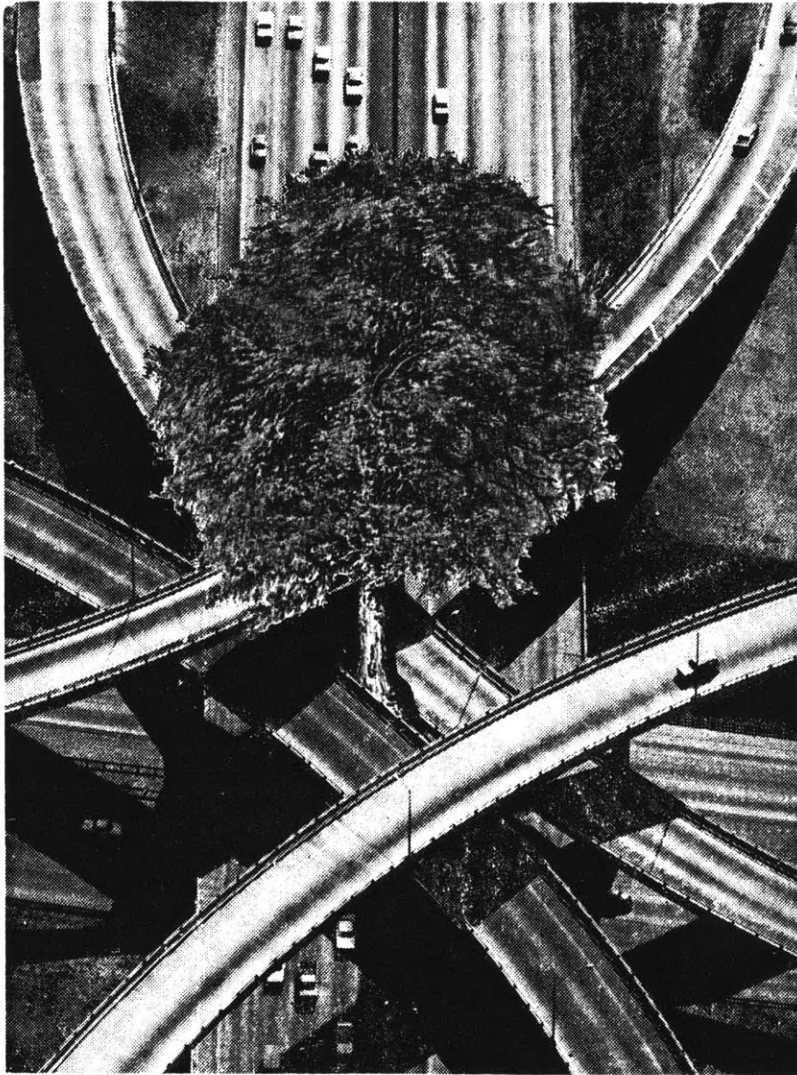


figure 1

This thesis is dedicated to my father.

This thesis is the outgrowth and culmination of a decade in which I have increasingly immersed myself in the field of architecture. It expresses concepts and values which I have come to embrace as my own and which I view as indispensable instruments for generating environments which are genuinely responsive to human needs.

At the same time, I am acutely aware that these same ideas are not simply my own, but rather have their genesis within the broad currents of collective discovery and debate that make up architecture as a creative activity.

In particular, I would like to acknowledge the debt I owe to three individuals whose insights have profoundly influenced me, guiding the process by which my own understandings and opinions have developed.

They are Gottfried Böhm, Charles Moore and my advisor, William Porter, all of whom I have had the privilege of working with over the past two years, either in Italy or here at M.I.T. I want to thank them for inspiring me with the faith that bold and major interventions are possible on the basis of careful considerations of context and effect.

In addition, special thanks go to my readers, Waclaw Zalewski, whose technical creativity was indispensable at numerous points in the development of this thesis, and Imre Halasz, for his invaluable advice.

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I. OVERVIEW

A longstanding urban problem is the utilization of land surround expressways. Super-highways slash across previously coherent communities like badly healed scars, permanently severing sections of the city from each other. This betrays the lack of foresight that has historically characterized such construction.

Surrounding these expressways are irregular and disjointed pieces of land whose unifying characteristics are those imparted by the expressways themselves: That is, they are often dark both by day and by night; permeated by the smells, sounds and headlights of modern traffic, they remain consigned to unplanned parking and feeble patches of grass. In short, they are ugly, unpleasant, unwanted—wasted.

This continues in part because it is considered inevitable. I would like to challenge that assumption by entertaining two complementary theses.

The first is that the presence of highways does not preclude the extensive use of the immediately adjacent spaces for a multitude of social functions. This includes the spaces above and directly below the highway spans.



figure 2 Downtown Boston

CITY OF BOSTON
TOPOGRAPHIC AND PLANIMETRIC SURVEY

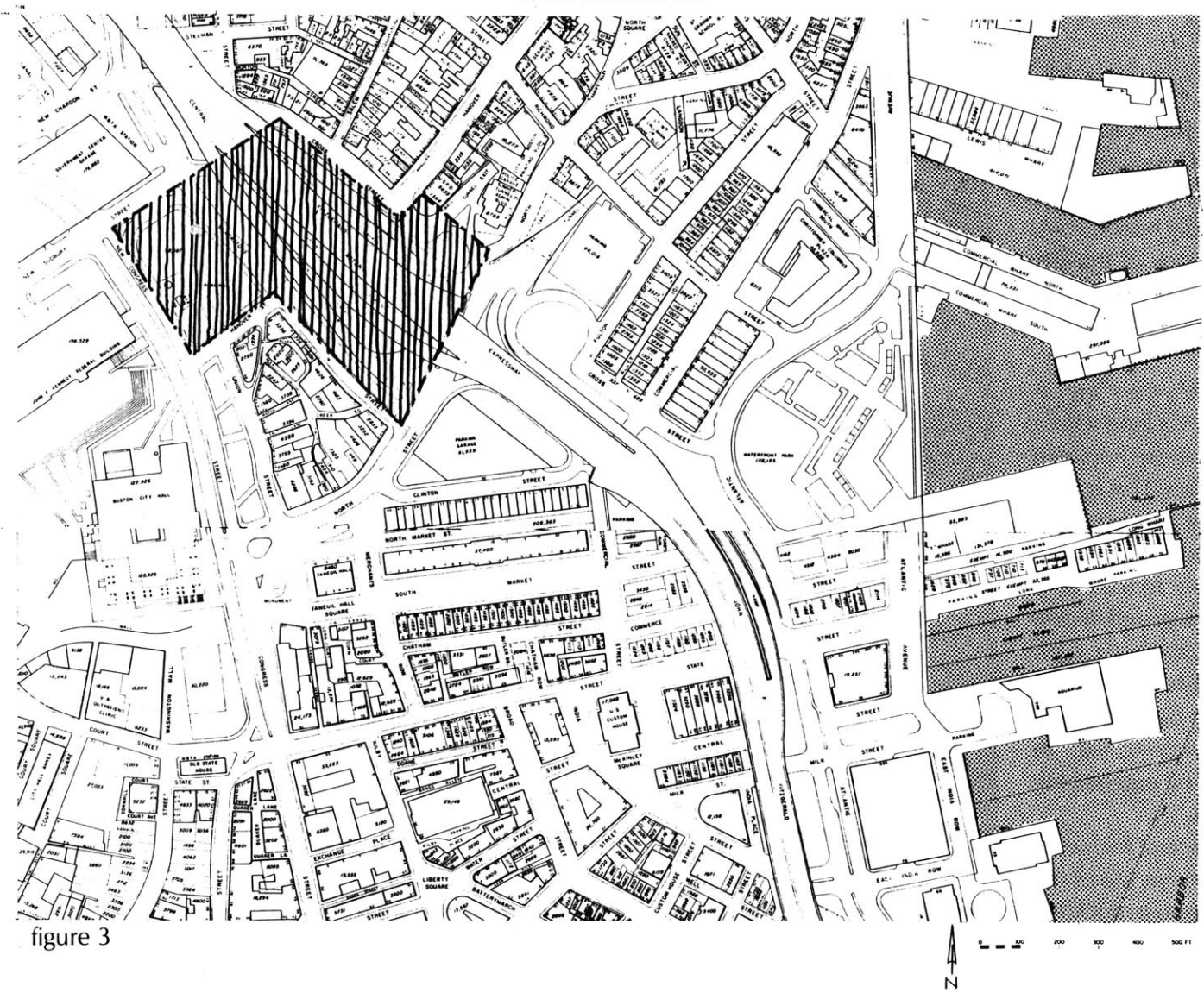


figure 3

Admittedly, several of the noxious features now characterizing such areas actually are inherent in major concentrations of urban traffic. Nonetheless, I maintain that such obstacles are not insurmountable and can be successfully tackled using innovative design.

The second thesis underlying this project is that it is possible to incorporate relatively unique properties of the existing highway structures, and even their traffic, directly into new buildings in ways that are both aesthetic and practical. I have sought to discover positive characteristics of the highway, and then have proceeded to construct my complex so that such positive features are culled away from the negative and used to lend it a distinctive character.

The Hanover Street Site

I have chosen as the object of my exercise a particularly intricate intersection of expressways in the center of Boston (see figure # 7). This is a point where the expressway frays into numerous strands. It is an area roughly the size of two square city blocks, which is split into several levels by the highway itself, divided by ramps and a tunnel exit, and which affords only irregular, disconnected open stretches of ground on which to rest new structures.



figure 4

Looking south. Hanover Street site separates Government Center from residential North End.

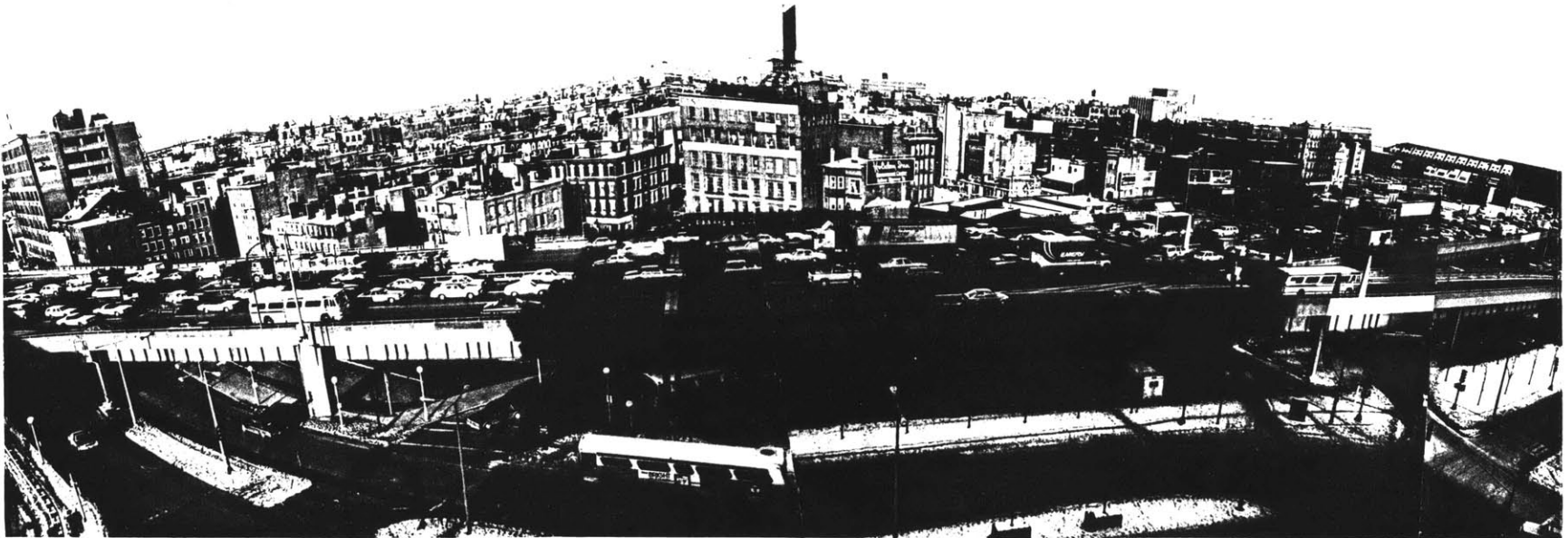


figure 5 North End and Fitzgerald Expressway, seen from Government Center Garage.



figure 6 Seen from its western edge is the Hanover Street site with the Expressway on the left and Lot 7, center.

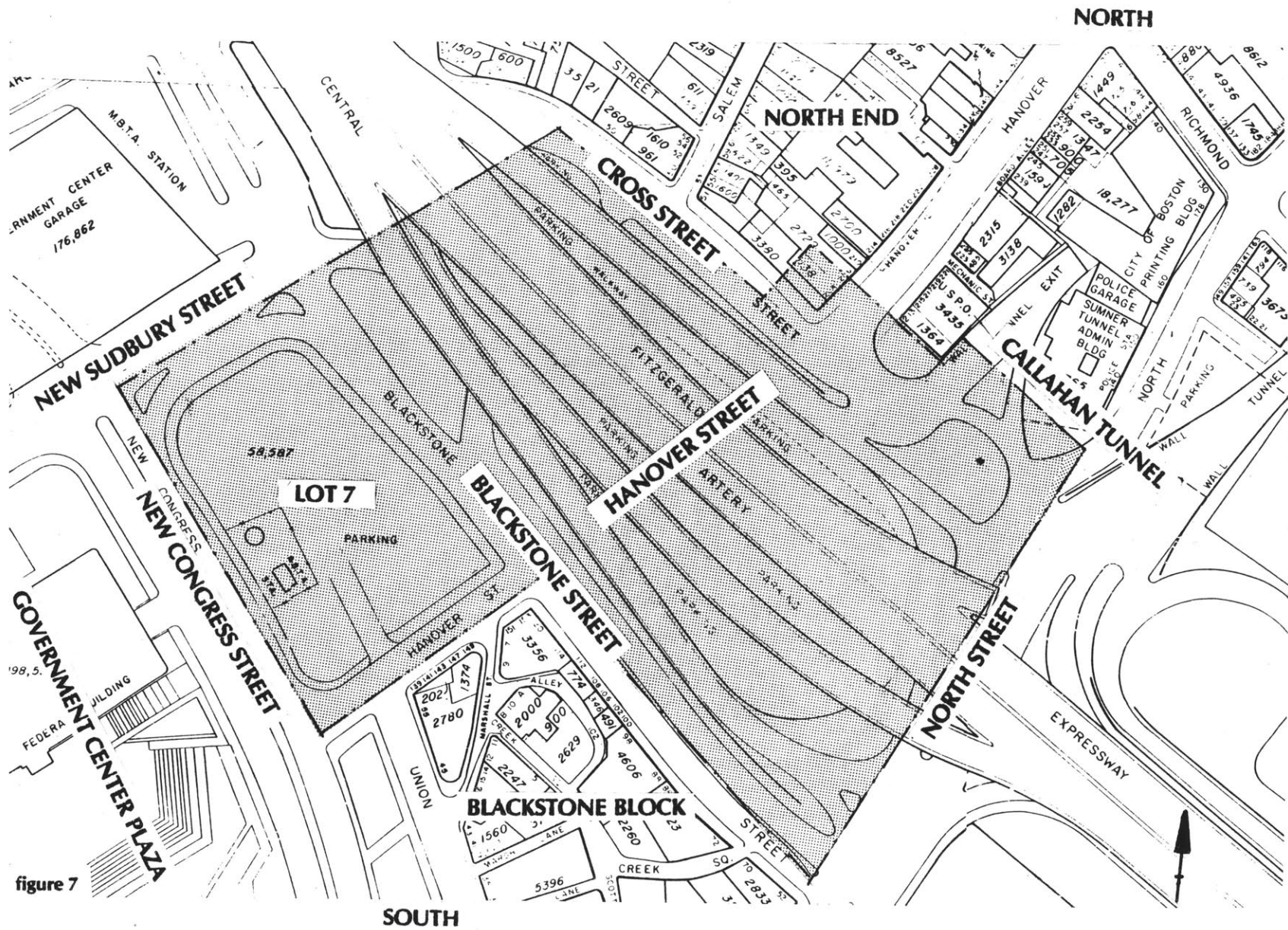


figure 7

As it now stands, the negative features of this site are readily apparent to even the casual observer. It has been said that highway traffic represents "a dream of random ordering, but lifted from [a regional] context to that of the city, a nightmare of noise and a spray of destructive energy." ¹ There is nothing there now to offset the noise and vibration, the fumes and erratic lighting. There is only one indirect pedestrian crosswalk; the area is garbage-strewn, at times unsafe, abandoned to parking by day and desolation by night.

However, from a different perspective, this same stretch has a number of intriguing features which recommend it to both builder and architect:

Unique Properties of Expressway Land-Scraps

An ironic by-product of the fact that major urban highways have created socially "untouchable" land is that we have here a rarity: parcels of urban land not yet claimed and over-claimed.

Consider the site we are going to develop: It is immediately adjacent to the desirable residential area of the North End and only one block from the heart of the city's government, the Government Center Plaza. Over

a quarter of a million people work or live within easy walking distance and yet, because of the architectural restraints inherent in new building on this site, until now it has remained almost completely abandoned to the single function of automobile transportation.

The existence of the expressway challenges us with potential uses for its structure, no doubt unimagined by its original creators. As just one example, it provides an unusual, already-constructed roof over whatever activities we ultimately insert.

In addition, if the expressway is seen apart from its more overbearing features such as fumes and noise, one discovers unappreciated aesthetic qualities. I even find it to be a beautiful space: The strength of its columns invokes Hertzberger's repetitive "march of soldiers." ² And headlights, while disconcerting in some contexts, can be utilized to provide an unusual, visually stimulating environment.

Program

I would like to present a plan for the transformation of the site through the creation of a complex of buildings utilizing the spaces above and below this artery as well as the surface of an adjacent block

known as "Lot 7." The most simple way to describe this complex is to enumerate its various component parts in terms of the functions assigned to each one. This range of functions is in keeping with my decision to propose a diversified sub-community for this site, rather than to erect something essentially homogenous—a decision made for reasons I will discuss elsewhere.

The five components of this complex are:

- 1) an hotel
- 2) a department store
- 3) a cultural center, itself housing some diverse functions
- 4) an office building
- 5) a block of residential housing.

Aside from their different social functions, these components are also distinct from each other in less obvious ways which are of particular importance from an architectural point of view: Because each has its own unique relationship to the expressway, each concentrates special design problems. An appreciation of this can be achieved by examining figure # 8, where these components are portrayed in relationship to each other and to the highway, and in relationship to the various spatial planes created by an expressway suspended above ground level.

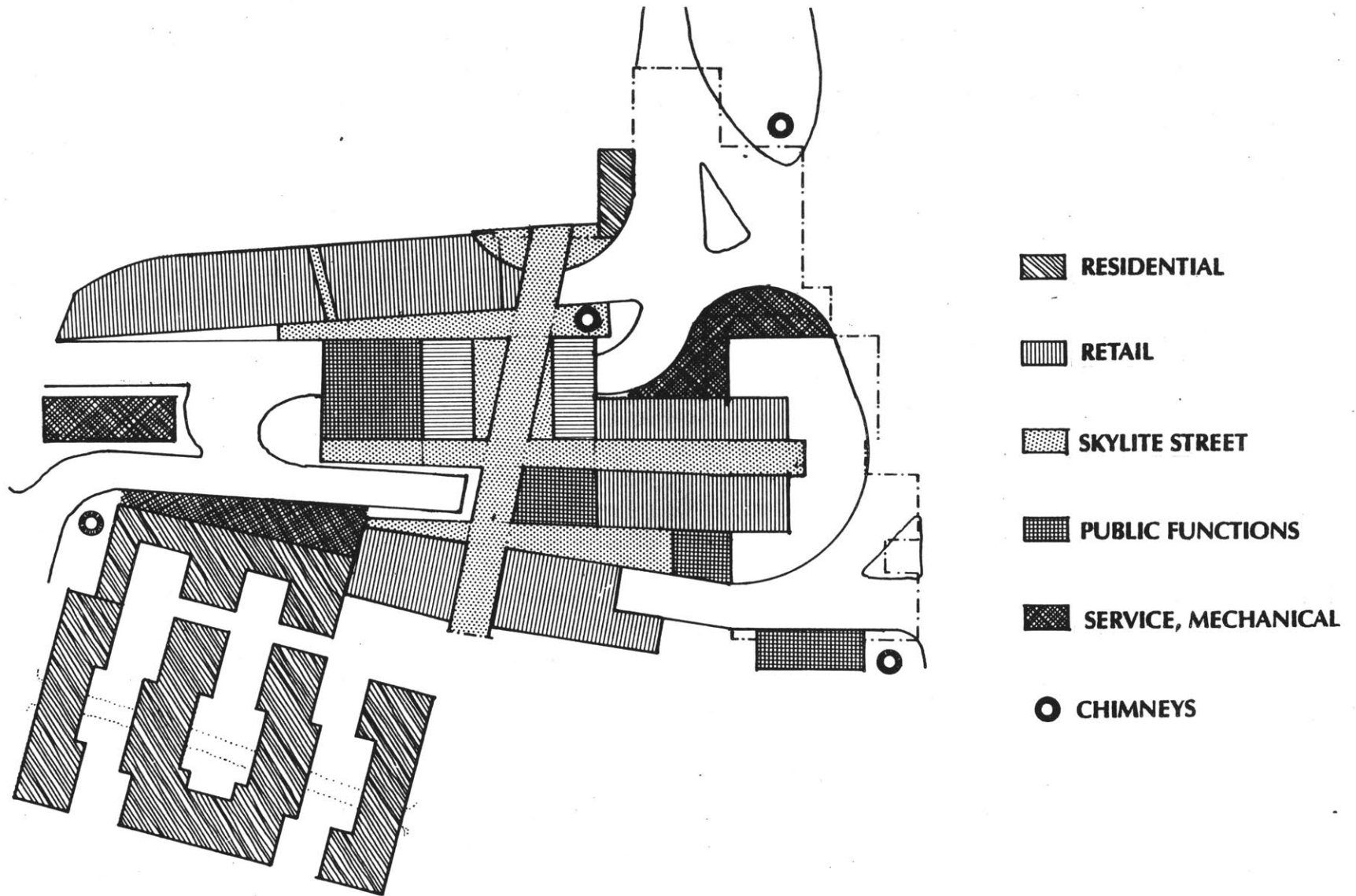


figure 8 Interrelations of functional components within the Hanover Street Complex New Ground Level.

 RESIDENTIAL

 RETAIL

 HOTEL

 SKYLITE STREETS

 PUBLIC FUNCTIONS

 OFFICES

 CHIMNEYS

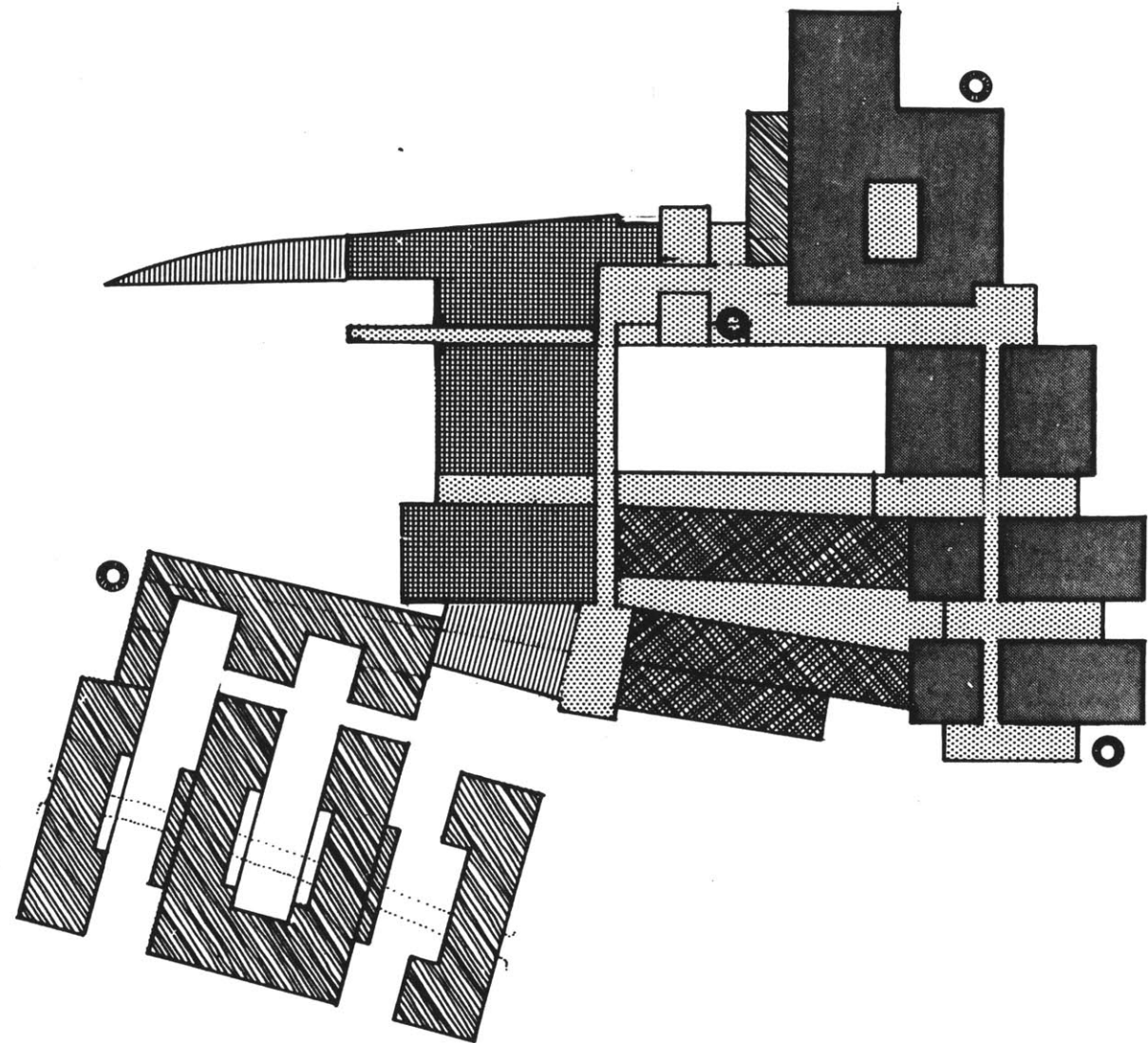


figure 9 The newly created second plane, 15' above present elevation of expressway.

The Hotel

This structure, situated above, below and between two ramps feeding traffic off the expressway, comes into being by unifying the three-dimensional space surrounding those inclines. It does this by allowing itself to be pierced by those two roadways, while it captures and incorporates some of their features, such as their nighttime lighting. There is a particular challenge here, in that not only does the height of these ramps above the ground vary for the entire length of the building, but (seen from above) their relationship to each other is not parallel, but rather fluctuates over that same distance.

The Department Store

This unit is housed under the roof provided by the expressway and one of its ramps. Taking advantage of the fact that department stores usually are self-contained and relatively undemanding in terms of their need for access to natural daylight, I have evolved a design for such a building in exactly that place where the highway overshadows the ground. This poses the problem of keeping out noise while finding ways to secure sufficient natural lighting for the accesses and entrances.

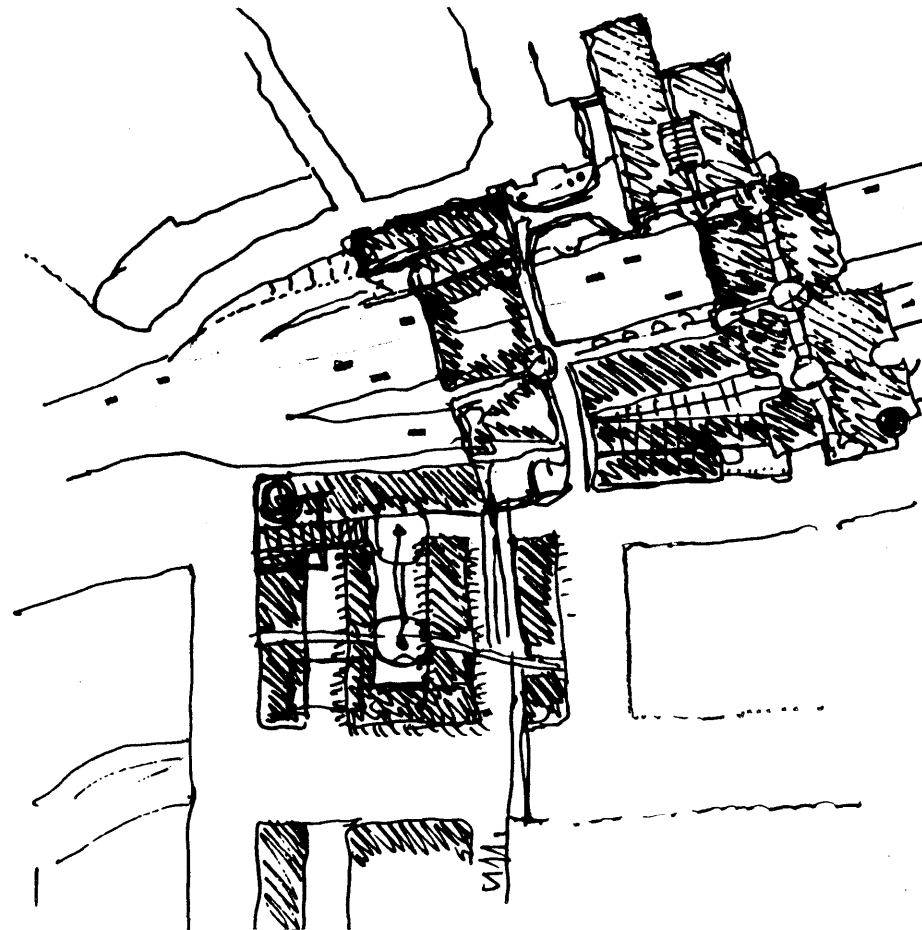


figure 10 Site Plan

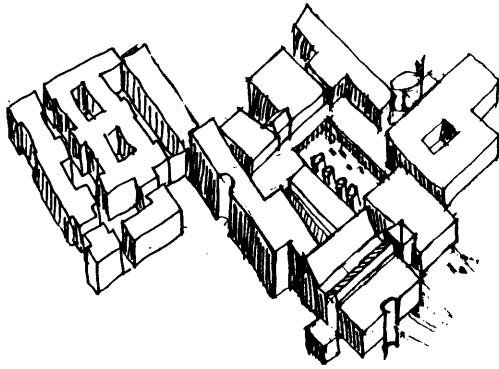


figure 11

The Cultural Center

This structure is entirely above the expressway and is intended to house a museum and a theater. In addition, there is a relatively large space provided which suggests a nightclub or discotheque.

Here there are particular acoustical problems, especially in relation to the theater, which by nature is intolerant of any appreciable external noise.

The Office Building

This structure rises completely over the expressway, resting on support columns. Here the challenge of adaptability is most acutely felt, since future expansion of the expressway might require the removal of some underpinnings and the transference of their loads. In the process of developing a plan for this building, I hit upon a strategy employing a mutable cage system. Within it, diagonal braces are used to distribute loads. If, in the future, specific columns below need to be eliminated or removed, the system allows new diagonals to be inserted so that the building can flexibly adjust.

Residential Housing

I have chosen to propose a block of residential housing for a lot adjacent to the expressway which would be integrated with the Hanover Street Complex. There are numerous conceptual reasons for making this suggestion:

It would balance the overall complex functionally.

It would ensure that the adjacent areas remain low-rise and therefore compatible with the needs of both the Hanover Street Complex and the adjacent Government Center.

And, it would ensure the preservation of the Blackstone Street Block, precious for historical and other reasons. Locating new residential housing on the Government Center side of the expressway is an assertive move which would contribute to defining the nature of the complex as a whole. For that very reason, it raises the need for design solutions that shelter these residences from the close proximity of the intense collection of office buildings to their south and the expressway to their north.

The Fitzgerald Expressway

Finally, the expressway itself must be considered an active component of the complex, since it enters into consideration at each point. The spaces adjacent to this central artery are to be utilized without disrupting the valuable social function it performs. This requires attention to the problems of avoiding impeding traffic during construction, of planning an end-product that does not impair the safety of either automobile or pedestrian traffic, and of developing a design that recognizes that expressways undergo transformations and expansions over time.

• • •

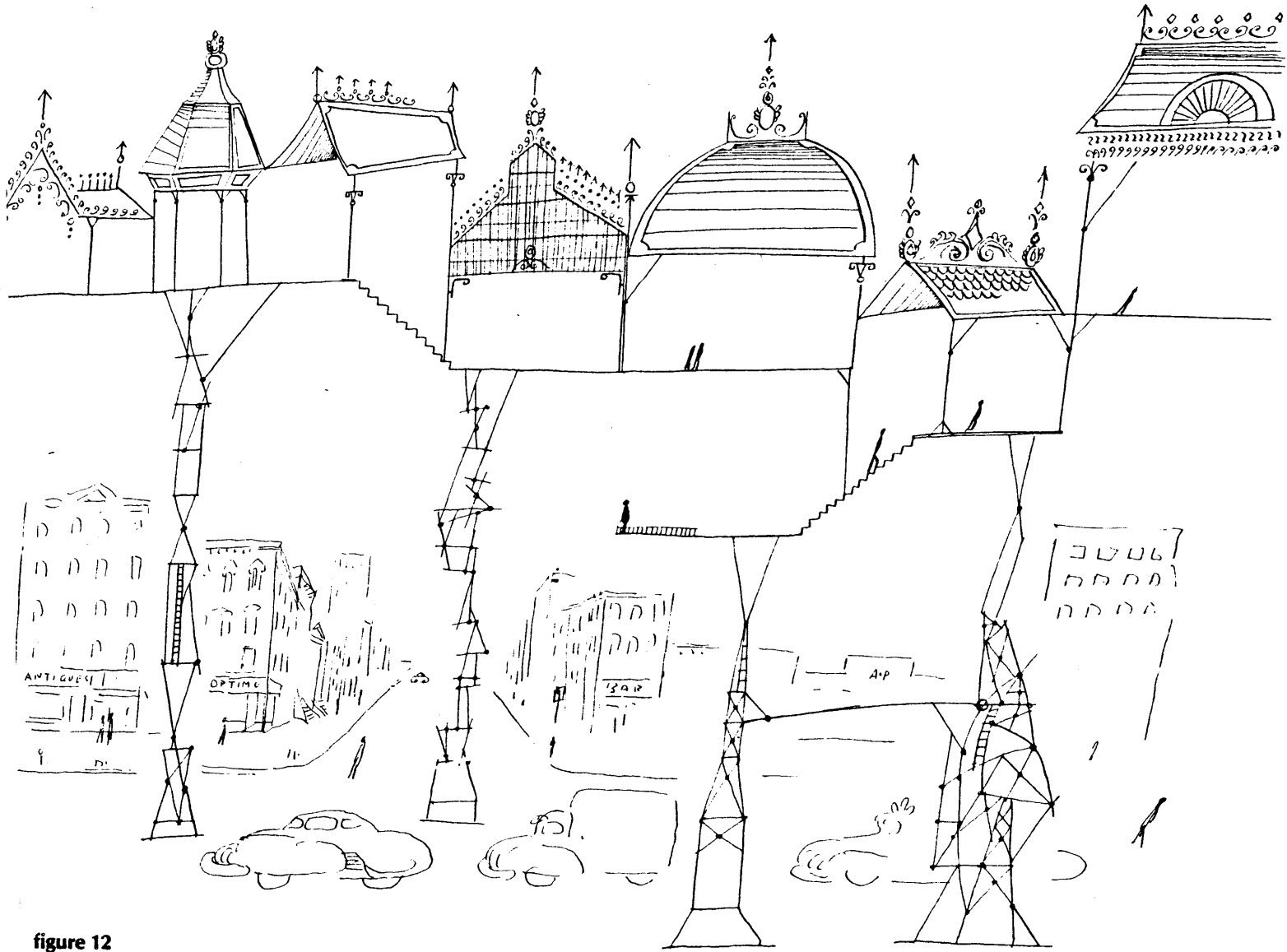


figure 12

The body of the thesis which follows is broken up into separate sections in which I examine each of the components of the complex in its own right, followed by a concluding piece which will examine them as a totality, in their interaction with each other and with the environment of the Hanover Street site.

Within this structure, I have written a record of the process of problem-solving. Each impasse in my attempt to create something useful on this site appeared as a reaffirmation of Hegel's famous conclusion that "Freedom is the recognition of necessity." Each tackling of a quite real obstacle posed by the site gave rise not simply to "solutions" in the narrow sense, but to new possibilities and advantages for the complex as a whole and for the surrounding environment. The motion from problem to solution, and beyond that to a new problem, also compelled me at later points to recast earlier decisions. Rather than write this thesis as a statement of a static end-product, I have allowed it to portray the evolution of my concept. As a result, it contains some internal contradiction between initial inclination and final decision, while overall it represents a directed process of working toward a practical and unified plan.

• • •



figure 13 Blackstone Street and Expressway

I would like to go into a discussion of common threads which run through the project and then to sketch in general terms some of the concepts and values which have guided decision-making as the design proposal evolved.

Problem of Re-Use

The studies of Alison and Peter Smithson pose a particular problem and state their conclusions on it starkly. They write:

“... Space requirements of effective interchange [within highway systems] are enormous [and] need to be able to change. *This is impossible if roads and interchanges are locked up with building complexes.*”³

Since what I am planning here is exactly such a building complex, entwined with an existing highway in the most intimate way, it is clear that we need to address the pessimism expressed above on this question of adaptability and re-use.

The same attitude toward design which leads me to seek new uses for a pre-existing highway structure also leads me to strongly advocate that *new* structures must be *consciously planned* with an eye toward their

adaptability to future, currently unanticipated, social demands. Buildings are called into existence to serve networks of social relations as they *now* exist. However, in rejection of shortsightedness, the architect should represent the social interests of the future within the present, and meet contemporary demands using systems that are capable of mutation in both scale and function.

Applying this general proposition to this specific project, I propose to construct the complex as a whole with two major considerations in mind: First, (as the Smithsons pointed out) the highway itself may undergo major changes, and traffic patterns may change or even be depressed below ground level as some future point; second, the social demands on these buildings will conceivably change within their lifetime.

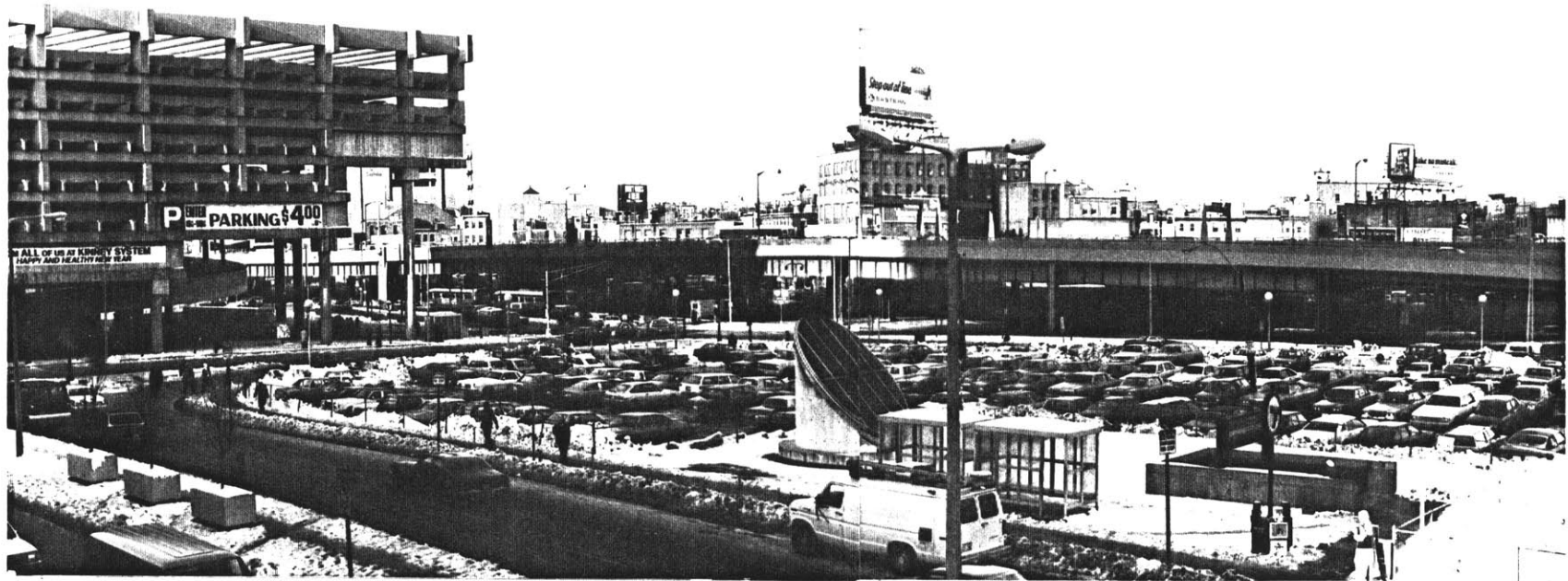


figure 14 Hanover Street Site seen from Government Center Plaza



Confronting the Severing of Surrounding Communities

A paradox of the modern urban motorway is that in the process of fulfilling its unifying function on a regional plane, linking previous separated units on that level of analysis, it simultaneously functions as a barrier within the communities it transverses. Highways sever and isolate by creating "a no-man's land between the scale of region and the

locality." ⁴

On this point, architectural design can contribute a micro-solution to a macro-problem of urban planning.

Consider our site. The expressway as it now stands constitutes an almost impermeable membrane between two distinct communities: the government office complex to the south and the thriving residential community of the North End. And it does



so, as I have already described, by creating a derelict stretch between them that is unpleasant and even dangerous to pedestrians.

With this in mind, the complex I will be proposing is intentionally not a closed pattern of finite spaces and rigidly self-contained buildings. The intention is to plan construction that will provide new links between the now-existing patterns of association on either side of the expressway. And I propose to find

ways of doing this without recklessly obliterating the barrier entirely and thereby endangering the delicate coherences which are especially important for the residential area to the north.

This is the contextual framework for two of the major design decisions that define my project as a whole:

First, I have radically recreated Hanover Street as a viable thoroughfare between

north and south—while I have chosen to give it an exclusively pedestrian character.

And second, I have proposed to create this new complex of buildings as a sub-community in its own right, with a diversity of social functions, so that it will constitute a transition strip between a business center and a residential community and not represent a victory of one over the other.



figure 15 Blackstone Block

Preservation Within Development

This discussion raises broader issues of continuity and change in cities, including the problems of gentrification and the usurpation of urban residential areas by office expansion. Because of its historical nature and its currently marginal character, the Hanover Street area now houses numerous fragile and quite valuable forms of social exchange which would have difficulty thriving in those

parts of the urban environment where every square inch is utilized to its maximum. Specifically, Blackstone Street has for decades been the location of an open-air fruit and vegetable market. Because the expressway reduced this spot to marginal land, the Haymarket has been able to survive.

Stacked on pushcarts, pyramids of glossy peppers, lemons, and 'Florida's finest' seem to rise to meet Boston's waterfront

skyline. In this now famous open-air market, the hawking tradition is older than the Revolution. Along Blackstone Street, the fruit, vegetables and meat marketed at wholesale prices provide bargains a-plenty, even for the Beacon Hill bluebloods who come to the 'people's supermarket' on Saturday mornings. They join the jostle of the hoi polloi, searching perhaps for a few choice avocados, crabs or camemberts. Peddlers sing out their low prices with an accent



figure 16 Typical traffic thru site

and enthusiasm that is unquestionably and delectably Italian.⁵

Simply making this "no-man's land" available to urban use raises the danger that it might be swallowed up by current, well-known, not necessarily positive land-use impulses. And it raises the danger that the North End might be gutted by uncontrolled intrusion from the business district to the south. These are problems which concern

me, and which I have taken into consideration at numerous points in the architectural designs which follow.

Here is my conceptual framework for decisions which will be made:

Neither preservation nor change are inherently positive in their own right, nor are they even possible in a pure form. They exist in relationship to each other; the choices which confront us are those of achieving

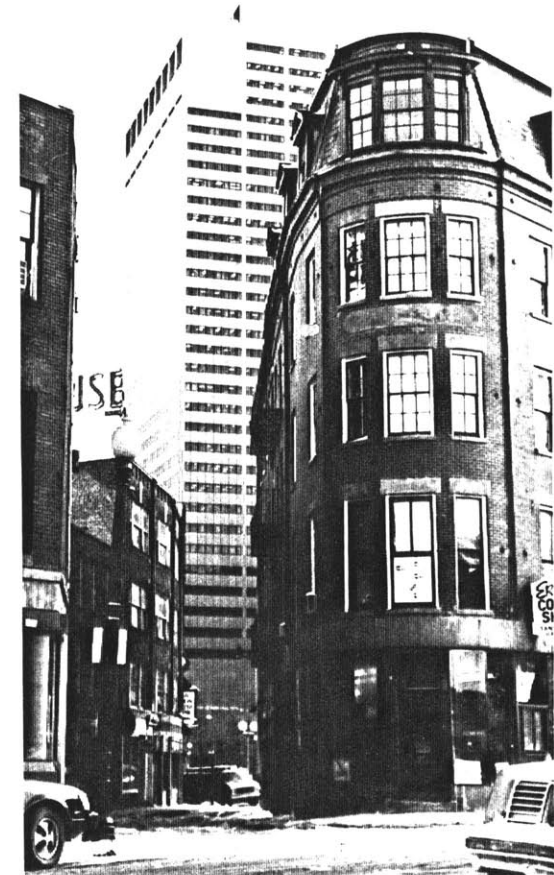


figure 17 Diversity characteristic of surrounding environment

responsible balances on the basis of our values and a sensitive investigation of the concrete project we are dealing with.



II. NEW HANOVER STREET

The numerous challenges posed by the Hanover Street Complex vary in their difficulty and their bearing on the success of the plan as a whole. There are two problems that are particularly intricate and whose solutions are crucial. They form the starting point:

—First, unless Hanover Street is recreated and planned so that it can develop into a lively, natural and safe thoroughfare of controlled traffic and commerce, the transformation of this site will not succeed.

—Second, the three ramps that drop off the elevated highway at this point pose the most difficult problem at Hanover Street. By their nature they create wedgelike spaces beneath them that stretch for the length of the site on both sides of the expressway. These are hardly inviting for new construction and social use.

These two problems overlap in relation to the structure and especially the clearance of the new Hanover Street. If we simply extended Hanover Street underneath the expressway, the clearance underneath each of the three ramps would be 10', 5' and 5', respectively. In other words, it would be physically impossible for even casual pedestrian traffic, let alone the necessary emergency vehicles a major commercial thoroughfare requires. This is the reason that today's informal pedestrian pathway underneath the

Fitzgerald Expressway uses an extremely indirect route to achieve minimal clearance.

This pair of problems leads directly to the first major decisions in the development of the site:

—Hanover Street is to be excavated 10 feet below ground level at the lowest point, and a new ground level is to be established that will not only serve for the bulk of the pedestrian walkway but also for the buildings that directly feed into it.

—We will construct a commercial hotel designed to envelope the two southern ramps. It will provide 24-hour social life and security for the site, and will be able to unify and utilize the spaces around these ramps with a single structure roughly 70 feet in height from its new excavated lobby/ground level.

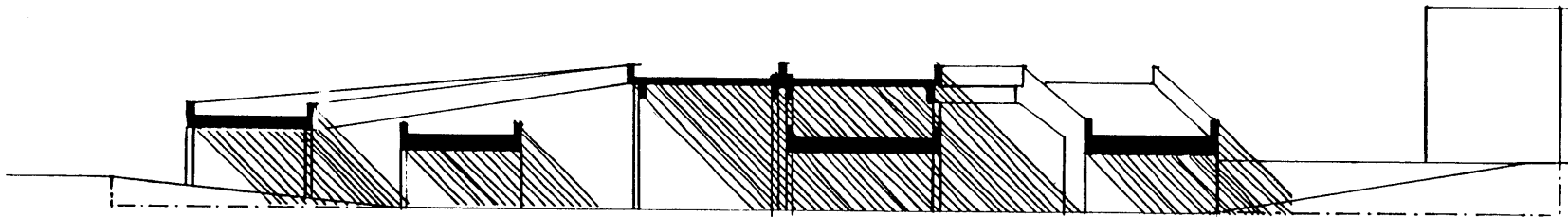


figure 18 Cross section of site at New Hanover Street, illustrating gradients of light under expressway

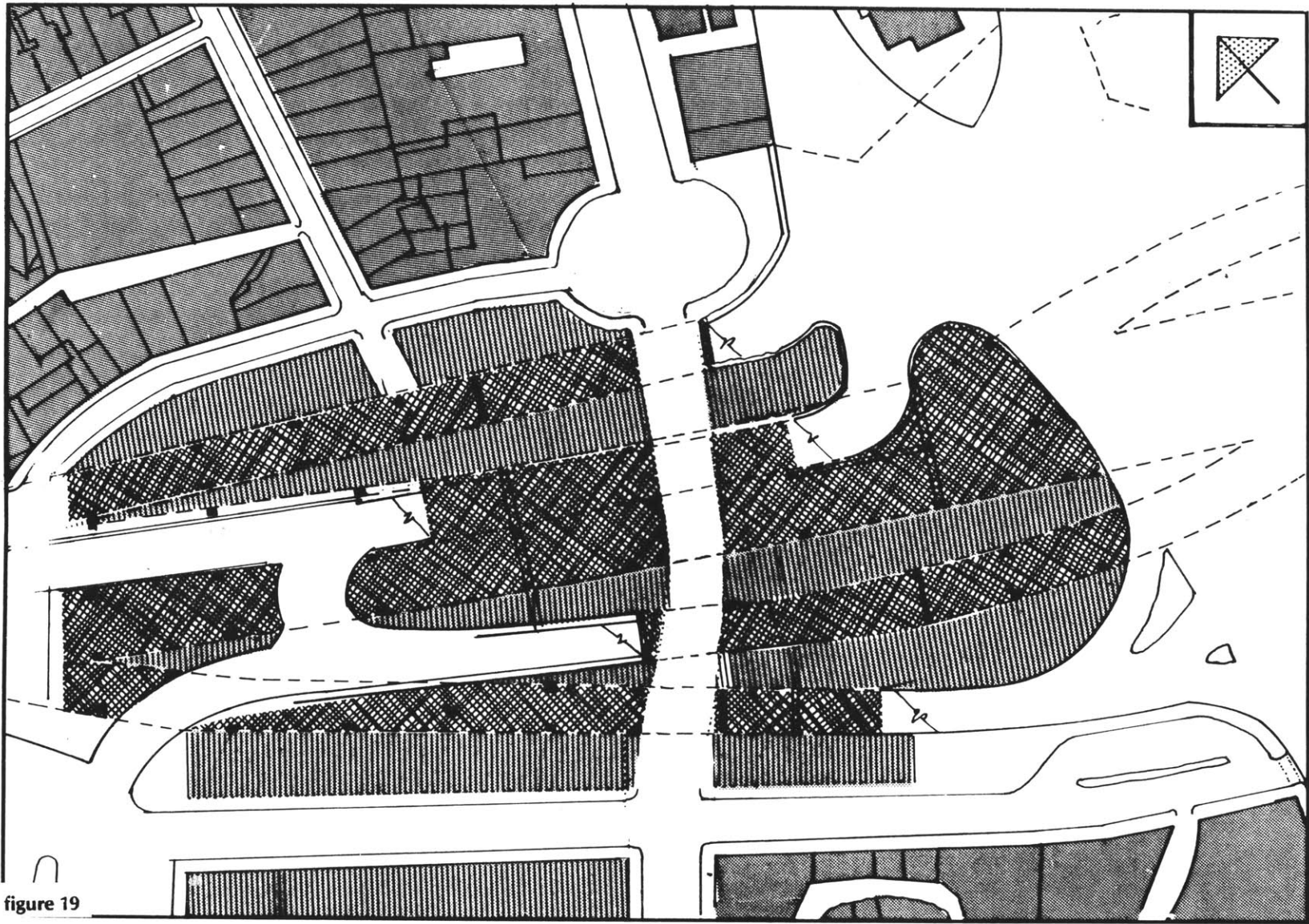


figure 19

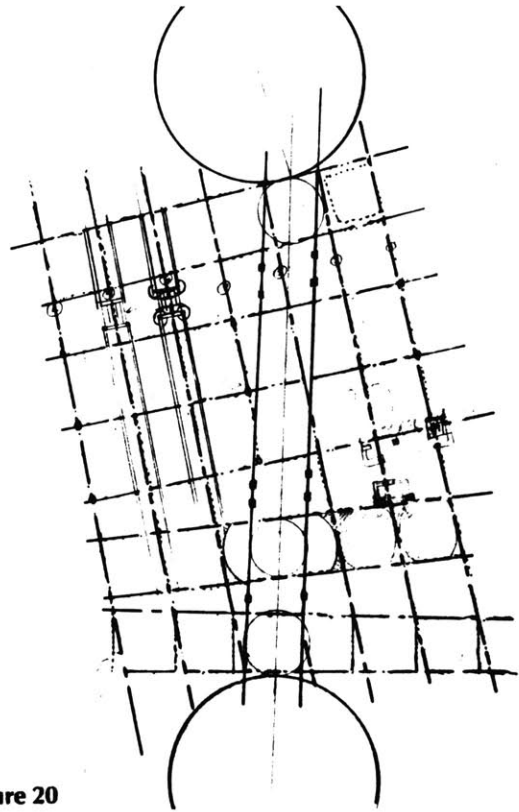


figure 20

New Hanover Street will be a pedestrian, commercial street serving both communities it joins and linking the various complex-components we are constructing to cluster around it. New Hanover Street includes two generous outdoor rooms (or plazas), to be built at both ends. These rooms will not only serve as transitional buffer spaces between the complex and the communities on either side, but will provide concentrations of open air and light as a contrast to the more-closed nature of that part of New Hanover Street directly under the highway span.

New Hanover Street will be the major access street for all the various components of the complex we are designing. The entrances of two complex-components (i.e., the department store and the hotel) will be directly onto the street. There will be three lobbies at the new ground level which, using elevators, will usher people to the activities that take place completely above the street, especially to the various activities within our cultural-center component. The residential block planned for "Lot 7" will have its main entrance onto the south-side plaza.

In this way, the collective energies of the various components will be funneled into New Hanover Street to grant it the necessary "critical mass" for success. And conversely, this funneling will serve the components

by providing them a sheltered and pleasant access alternative to the harsh streets in the immediate area, which are heavily loaded with both rush-hour autos and wholesale truck traffic.

The sights and sounds of New Hanover Street will be those of a modern shopping street, with restaurants and storefronts on both sides on its 350-foot length. However, in width and clearance I have preserved the dimensions characteristic of vehicular streets, both because its covered nature requires generous spacing to avoid a cramped feeling, and because this new street must be adaptable for use by automobiles should this become necessary at some future point.

New Hanover Street intersects spaces which now exist as vacant slits between the various ramps and the expressway. These are to be rehabilitated to serve two important functions: First, they will be tiered to provide a lateral connection between the excavated New Hanover Street trench and the old ground level. Second, they will be assigned their own social functions. Walking along New Hanover Street, you will see five such spurs. One will serve as housing for the lobby of the hotel. Another will house the ground floor of the department store. The third will serve as a commercial side-street in its own right, with an opening on

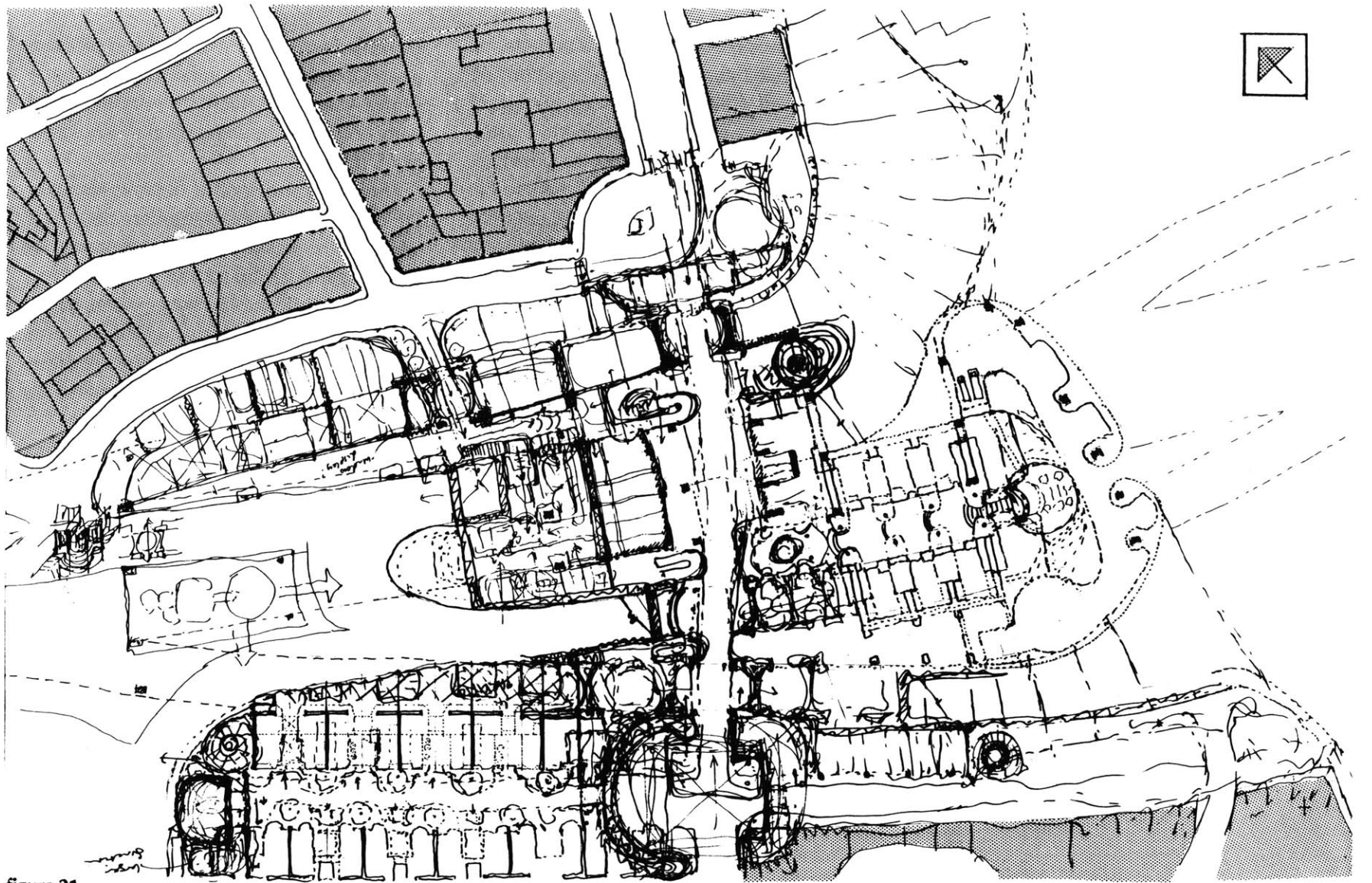


figure 21

its far end onto Salem Street. The remaining two will be the lobbies for vertical connections to upper levels, one of which will also house a fume-chimney (to be discussed later).

The relationship between these five lateral spaces has been designed as a single network feeding into New Hanover Street, similar to a watershed of streams feeding a major creek. This is true both because that passageway will be the central axis of all these activities and because, physically, each of these spurs will rise in elevation from the excavated new ground level of Hanover Street, to the old ground level of the surrounding streets.

Let us consider lighting for a moment. New Hanover Street is not a tunnel and will not feel like one—it will neither be dependent on monotonous artificial lighting nor covered by a single continuous roof. On the contrary, the overhead ramps and expressway alternate with major strips of open sky, so that the experience of walking from one end of New Hanover Street to the other will be a passage through a series of distinct thresholds, alternating dark and light. In this process, light will not only introduce welcome experiential variation over the course of the street, but it will also serve at each juncture as practical notification to

pedestrians that they are being presented with a choice of continuing along the street or exploring one of the lateral spurs just described.

THREE TECHNICAL ASPECTS TO THE RECREATION OF HANOVER STREET

—It might be tempting to project New Hanover Street as a straight arrow cutting a neat new path under the Fitzgerald Expressway. However, this is neither practical nor necessary.

There are three major columns clustered under the six lanes of the expressway, which now stand squarely in the way of an extrapolation of the existing south-side Hanover Street. In addition, Ramp “B,” which will be problematically low wherever it crosses New Hanover Street, becomes lower as one moves from east to west.

As a result, I am proposing a compromise with the existing highway structure by moving New Hanover Street gently to the east, using a gradual curve. This will avoid all the expensive problems of even deeper excavation (under Ramp “B”) and of a frontal assault on these columns.

Actually, these columns are worth preserving because of appearance as well as function. Clusters of such columns are scat-

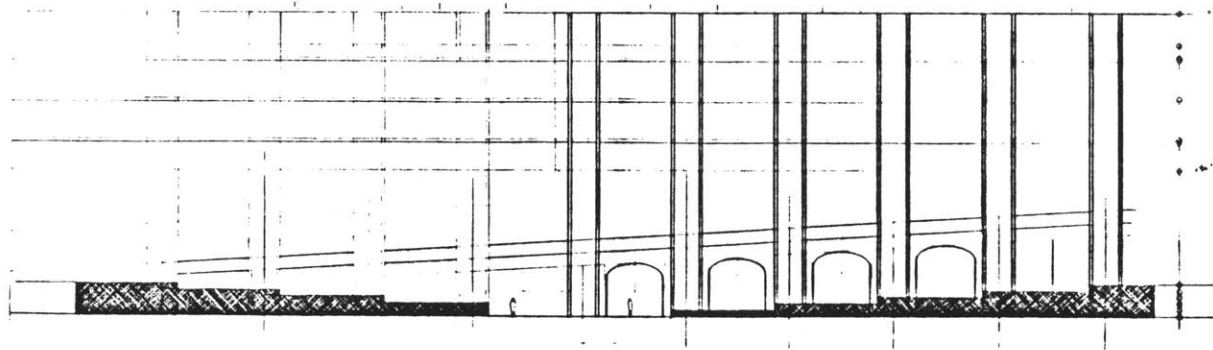


figure 22 Proposed openings under ramps

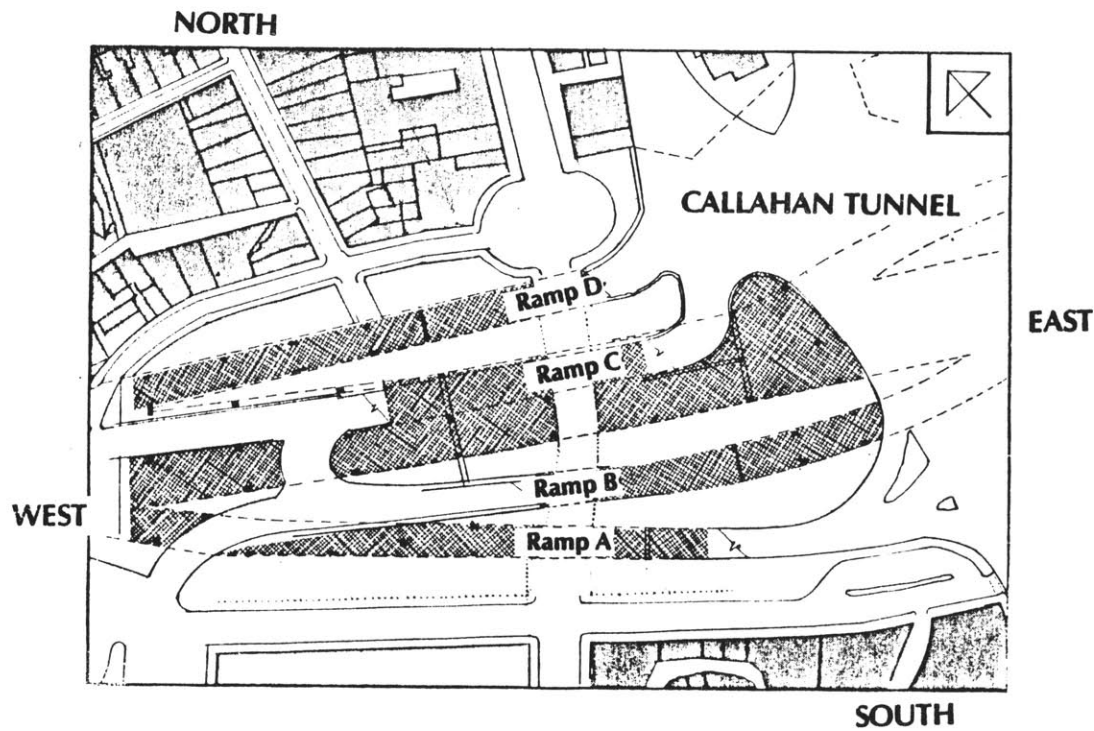


figure 23 Traffic
 Ramp A•Off-ramp from eastbound lanes
 Ramp B•On-ramp to eastbound lanes
 Ramp C•Tunnel's access to Ramp B
 Ramp D•On-ramp for westbound traffic

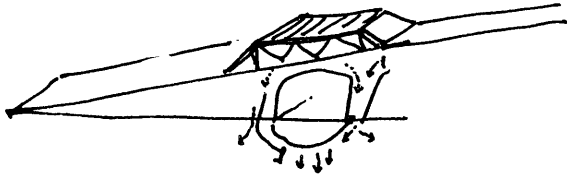


figure 24

tered throughout the site, reminding observers of where they are. They represent a celebration of the unusual and provide rhythmic vertical strength within a vista dominated by massive horizontals.

There is another advantage to not having New Hanover Street dart singlemindedly from Blackstone to Cross. An insistent "light at the end of a tunnel" draws people out of a passage. By curving the road slightly we will be able to mute the impact of the plazas at either end, enabling pedestrians to become involved with the quite significant light/dark contrasts where they are. In this way the curve will serve as an invitation to linger, underscoring the commercial rather than the connecting nature of the complex as a whole.

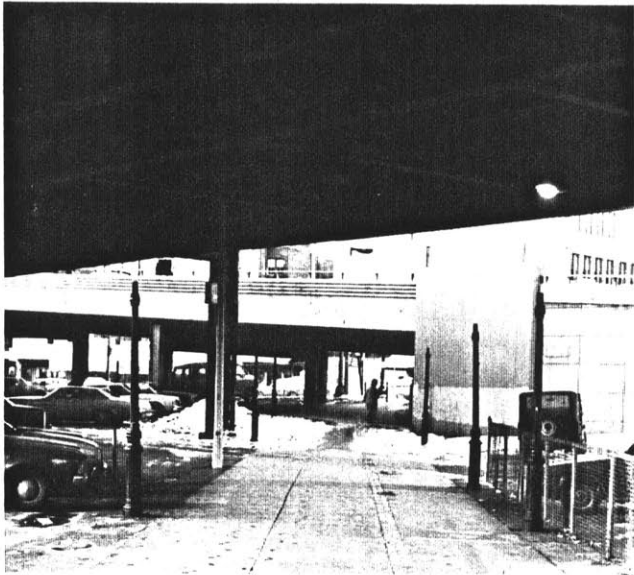
—At several points the path of New Hanover Street cuts through what are now concrete bearing-walls sealing off spaces under the various ramps. Needless to say, these ramps were not built with an eye toward future construction. Using these spaces therefore requires not only the insertion of steel supports in place of earthen ramps, but also the application of techniques that ensure that the ramps remain functional throughout the process. As is illustrated in figure #24, this one problem can be approached by utilizing temporary steel bridging-spans which will

maintain a usable surface for traffic while the ramp below is rehabilitated to be compatible with New Hanover Street and to accommodate future shops.

—The Callahan Tunnel from East Boston now unloads heavy traffic onto Cross Street, the northern border of the Hanover Street site. This constitutes a major obstacle to north-south pedestrian traffic, and therefore works directly at cross-purposes with our plans for creating facilitated linkage via New Hanover Street.

The best solution to this problem is to reroute the traffic.

Traffic rising from the tunnel up Ramp "D" merges into westbound traffic on the Fitzgerald Expressway. Since it does not interfere with this project, it can continue its present course. However, eastbound traffic, and that traffic which is intended for immediate local dispersal, will no longer use Cross Street. This street will be sealed off to tunnel traffic, transformed into a more muted residential artery of the North End, and will serve the northern plaza we are creating at one end of New Hanover Street. Tunnel traffic that is destined for the eastbound lanes of the expressway and for local dispersal will now pass through the complex by a new route, which will include a Ramp "C" to be constructed over New Hanover Street pro-



figures 25, 26 Under the expressway today



figure 27 Looking south from the site of proposed southern plaza



figure 28 Looking north from the site of proposed northern plaza

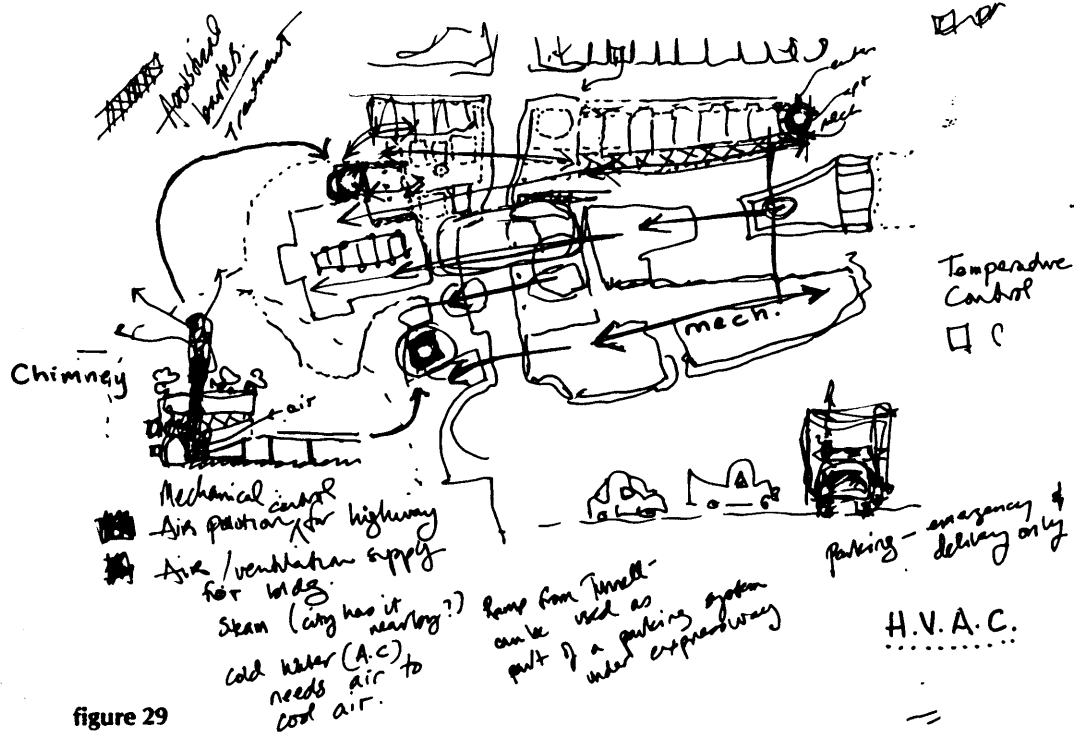


figure 29

viding access to Ramp "B."

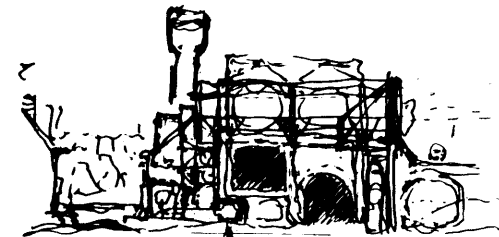
A safety consideration needs to be mentioned at this point. It would be hazardous to have tunnel traffic emerge into sunlight and then immediately plunge into shadows. However, (as can be seen in figure # 36) the Hanover Street Complex includes an office building which will overlay the entire present mouth of Callahan Tunnel, so that traffic will only encounter daylight once, as the various ramps emerge from the complex.

...

Chimneys

Automobile fumes, which have a greater specific gravity than air generally, will tend to accumulate at the bottom of each enclosed incline. Four chimneys will mechanically ventilate such points.

• • •



III. THE HOTEL

The ground level of the Hotel, and of the main entrance to its lobby, corresponds to the excavated level of New Hanover Street.

Fifty-six feet above that level I have created a second plane. Its height is the sum of the the height of the expressway plus the standard vertical clearance required for general urban traffic.

Within the Hotel, the space below this second plane is dominated by the two massive ramps, "A" and "B," which (seen from the side) criss-cross each other within it, creating irregular, yet potentially dynamic,

three-dimensional space. Above this second plane, where the hotel is freed from immediate interaction with the highway structure, unusual restraints fall away and it becomes possible to employ a conventional floorplan for the hotel rooms.

In the interstitial space between ramp roofs and the second plane, we will locate a service level devoted to acoustical insulation and mechanical systems.



figure 31 North Street Elevation

Hotel Lobby

The entire space below the second plane, minus this service level, is devoted to the hotel lobby.

As one enters the main entrance from New Hanover Street, the lobby one sees is roughly cut into thirds. On the right is a pitched ceiling given by ramp "A" that starts high and declines as it moves away. On the left, the space available below Ramp "B" starts at a height of approximately 15 feet on the left hand, and rises dramatically as it recedes toward the back of the lobby. Separating the two is a soaring space, which is made possible by the fact that between these two ramps there is now a strip of open land with no highway-imposed ceiling. The effect imparted by this space, hemmed in on either side by massive inclines, will be startling and liberating to a person anticipating confinement in "a hotel lobby under expressway ramps."

This impression of unexpected freedom will be enhanced by the fact that this soaring strip itself *widens* as it moves away from our entrance-way observer, until at the rear wall of the lobby it appears to have pushed the ramp inclines off to the right and left, claiming the right to a major open space which will have doubled in width by the time it reaches the rear wall. Aside from

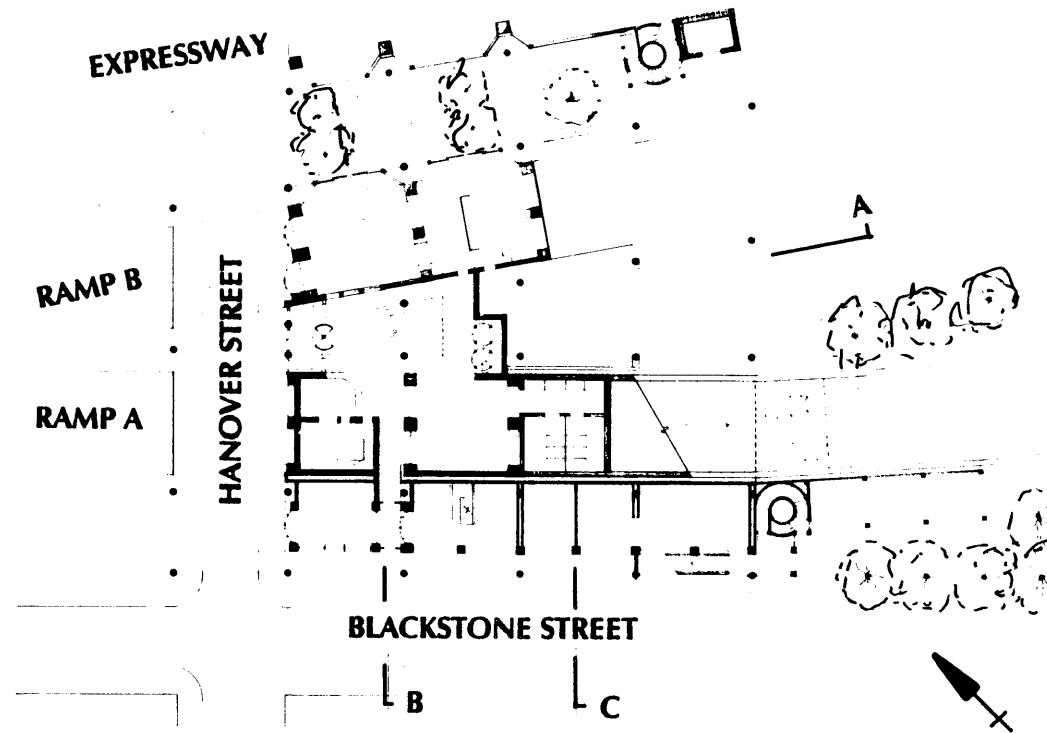


figure 32 Ground Level Plan

meeting space requirements for the functions of a hotel lobby, there will be a distinct feeling of a space that has somehow conquered its location and has taken the observer with it into a place beyond and above the ramps themselves.

Taking advantage of the spotlight cast on the rear wall by the anti-perspective expansion of the open lobby as it recedes, I plan to place on that 70-foot wall a system of tiers

and a visible bank of elevator columns. The tiers will impart some of the feeling of an "indoor mountain," irregular and reclining, while the elevator sheathes will emphasize vertical motion.

Seen from new-ground-floor lobby entrance, the reception area is to the right, elevators and stairs directly in front, and a bar/club to the left. Catwalks above connect the elevators and the corridors. The roof in

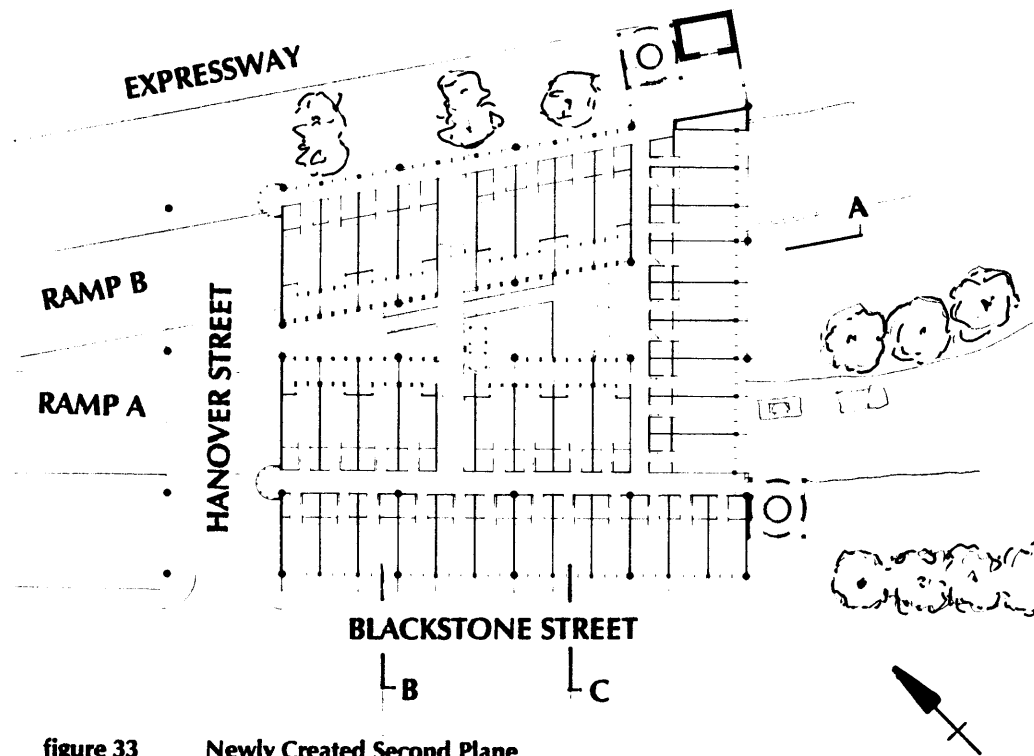


figure 33 Newly Created Second Plane

the soaring center wedge of the lobby is pitched and constructed of steel and glass to allow natural lighting.

Restraint and Illusion

It should go without saying that, in order for this building to succeed as a *hotel*, it must insist on its right to *be* a hotel with the requisite atmosphere of privacy, rest and discretion. In most hotel design, making the

large lobby space interesting is a problem. By contrast, this lobby inherits a vigorous dynamic, and the problem here is keeping it under control. If these ramps, and the highway as a whole, were to constantly announce their presence within the lobby, there would be an impression of uncontrolled random intrusion that would be destructive to the social function assigned this space.

Consequently it is necessary to achieve a

precision of impact for these ramps within the hotel lobby, where they remain impressive and dominating because of the unusual shape they give the space—while they generally do this as abstractions, as inclines, and as a logical part of the hotel. To achieve this effect, attention must be paid both to acoustical dampening and to the use of actual lobby wall designs that disrupt concentration on the ramps as ramps. In addition, there will be side entrances so that people using the hotel are not forced to experience its more unusual and intense features without choosing to.

The overall concept is to transform an eccentric space, *abstracting* it from the structures that in fact define it, and to allow it to assume an interesting, integrated character that does not constantly compel an observer to speculate on external structural influences.

If we succeed in this goal, then we will be able to startle and delight people when, in a controlled way, we choose to break exactly that illusion of abstraction and reveal to them that this incline is, in fact, a highway ramp bearing frenetic city life.

The principal way this will be done within the Hotel lobby will be by allowing the traffic to be visible from specific vantage points, through transparent panes, and by allowing

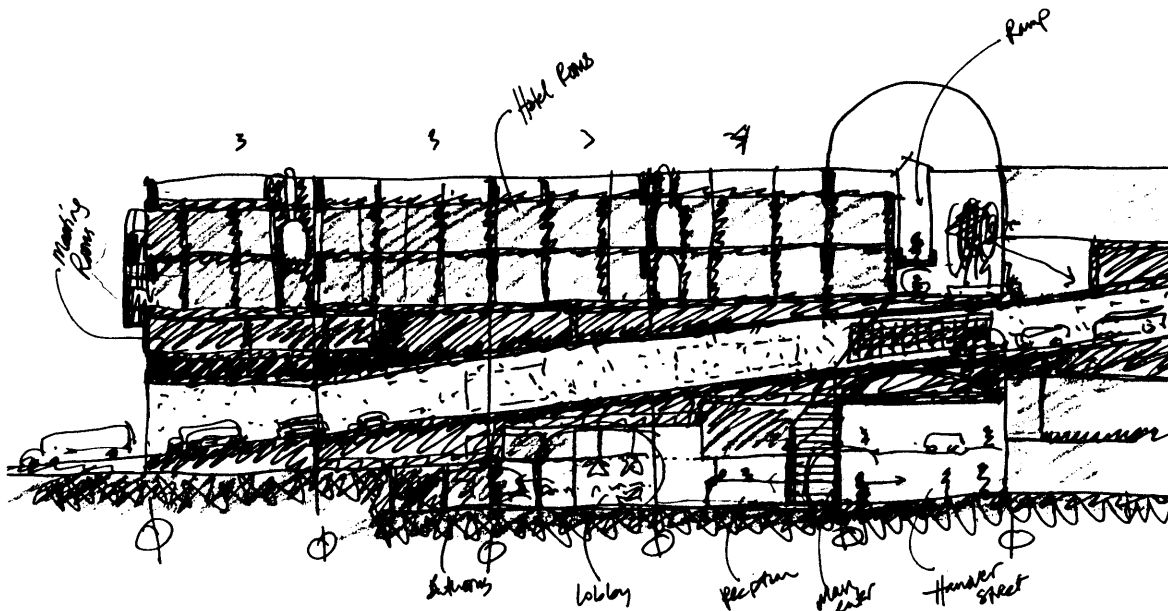


figure 34 Hotel diagram



figure 35 View from North Street

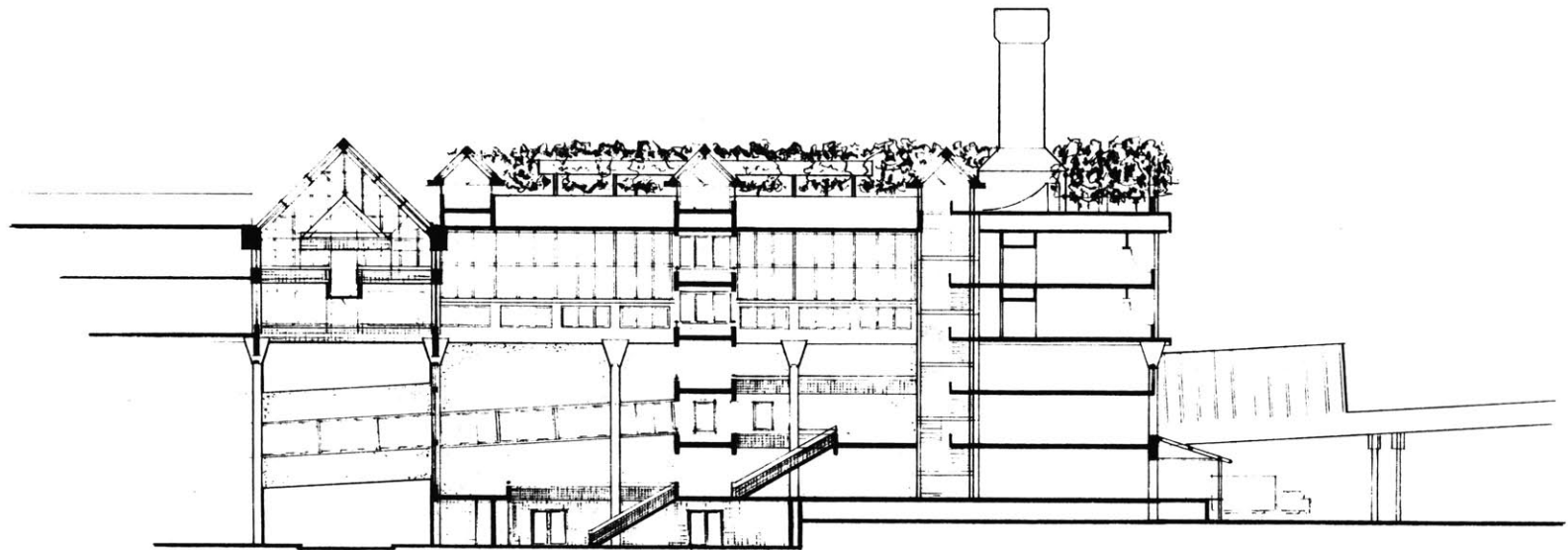


figure 36 **Cross Section A**

a controlled release of highway lights into the lobby itself. Even here headlights will not simply be perceived as *headlights*, but in a context that allows them a separate existence as abstraction and metaphor. Hopefully, this will evoke Le Corbusier's homage to a similar scene:

That stupendous colonnade which disappears into the horizon as a vanishing thread is an elevated one-way autostrada

on which cars cross Paris at lightning speed. . . . When night intervenes the passage of cars along the autostrada traces luminous tracks that are like the trails of meteors flashing across summer heavens. ⁶

Hotel Rooms

The floors containing hotel rooms start from the second plane, defined above. The roof of the lobby rises above the second

plane, but does not reach the same height as the three upper floors containing 200 rooms that make up the body of the hotel. These rooms are organized around the hotel lobby, so that they are above the ramps, with the open space in between maintained throughout, either as lobby or as an open space above the lobby roof (see figure # 37).

A typical hotel room is twelve feet wide and thirty feet long. From the door of

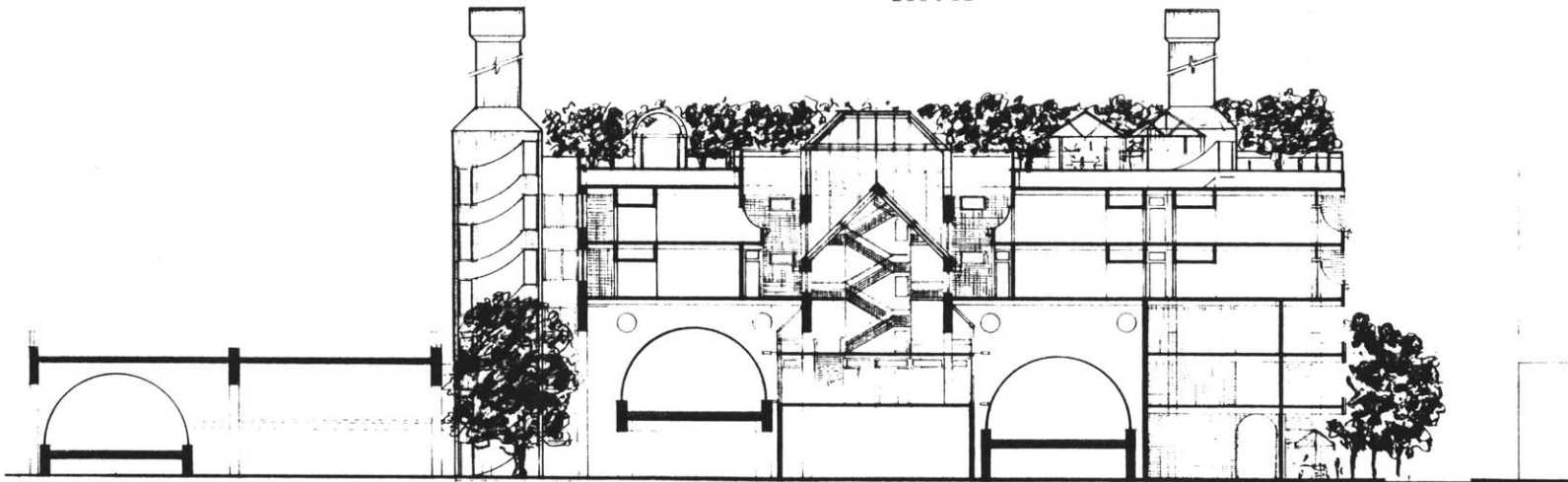
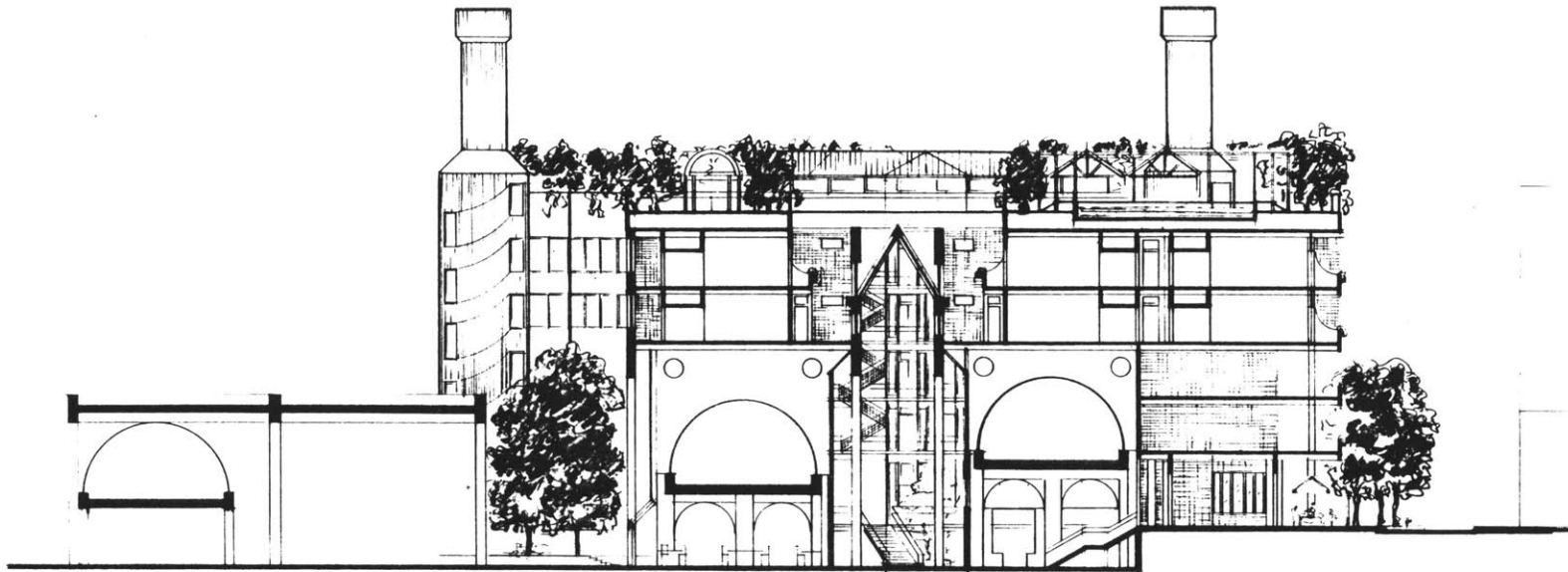


figure 37 Cross Section B
Cross Section C

each room, there is a bathroom immediately to one side and a closet to the other. Directly in front is a bay window and a terrace. The rooms are organized linearly along single corridors, or staggered along double corridors.

A third of the rooms overlook the Blackstone Block to the south, while the other two thirds face inward with views of the sky and the exterior of the lobby's glass roof.

Along the northern hotel wall overlooking the expressway run the corridors servicing the rooms on that side. I have chosen to forego having these rooms directly overlook the expressway, choosing instead to maintain some distance between hotel rooms and the highway itself, and to buffer the noise of traffic by setting up several zones between them consisting of the glass-enclosed corridors, bathrooms and closets.

Hotel Roofs

The roofs over the hotel rooms are planned as recreational areas, one for swimming, the other with paddle courts.



IV. DEPARTMENT STORE

Underneath the level of the expressway, there is a large, homogenous and relatively regular space just north of the hotel, bordering the eastern side of New Hanover Street. Half of it is under the three eastbound lanes

of the highway and the other is underneath Ramp "B." This suggests a department store, especially since such stores are relatively undemanding when it comes to natural, external lighting, and tend to prefer an enclosed, focused and artificial environment.

To take advantage of the spur between the expressway and ramp, we will center the

department store itself around a secondary indoor "street" which will lead away from New Hanover Street and will be housed beneath a skylit roof transmitting daylight into the interior. Because of the natural uphill incline of the ground east of New Hanover Street, and in keeping with the "watershed" effect described earlier, this indoor "alley" will rise as it recedes, using a system of terraces and steps.



figure 38 The following figures are studies of the department store at various stages of development. My final conclusions are best represented by figure # 89 in the final section.

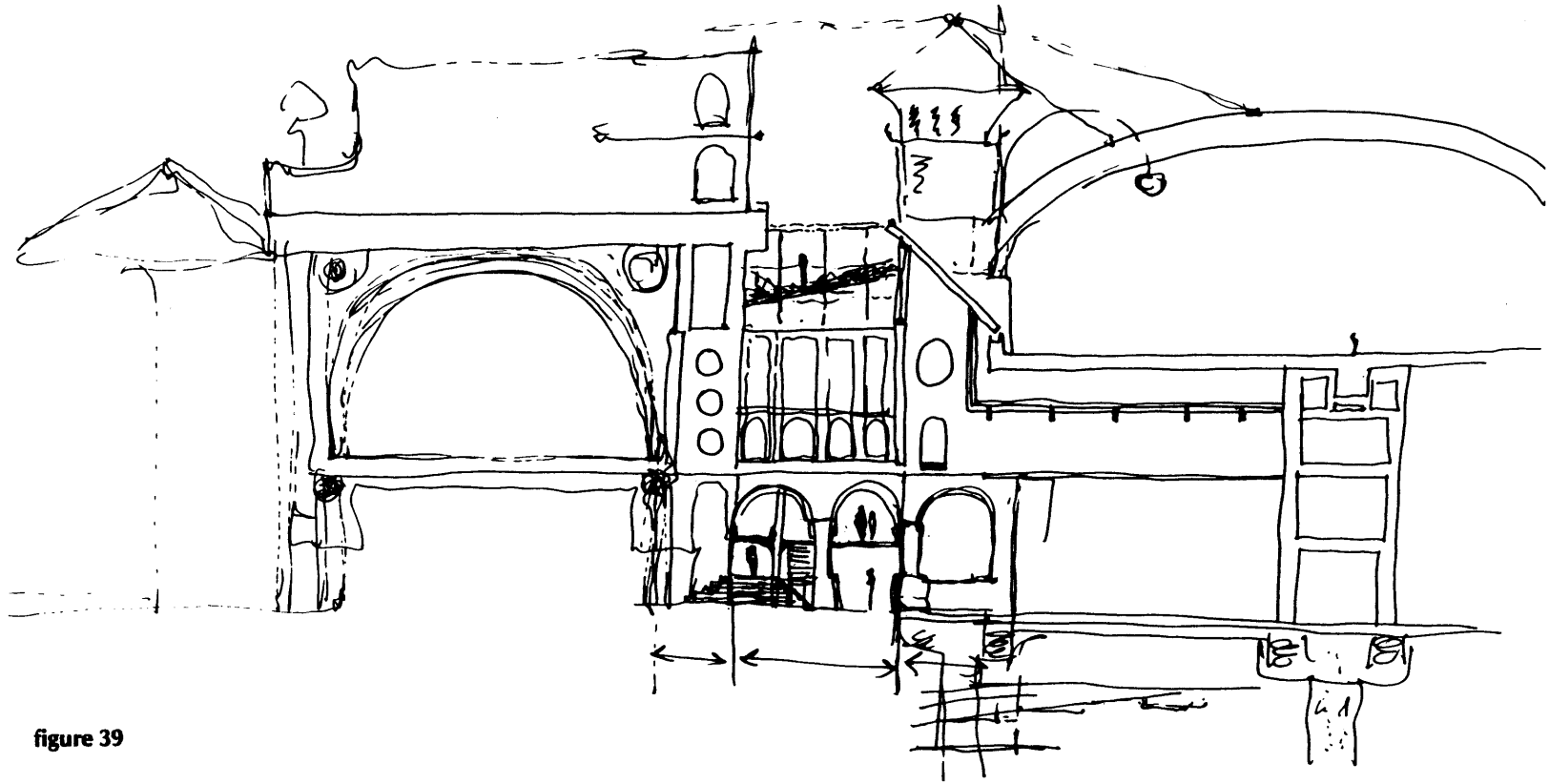


figure 39

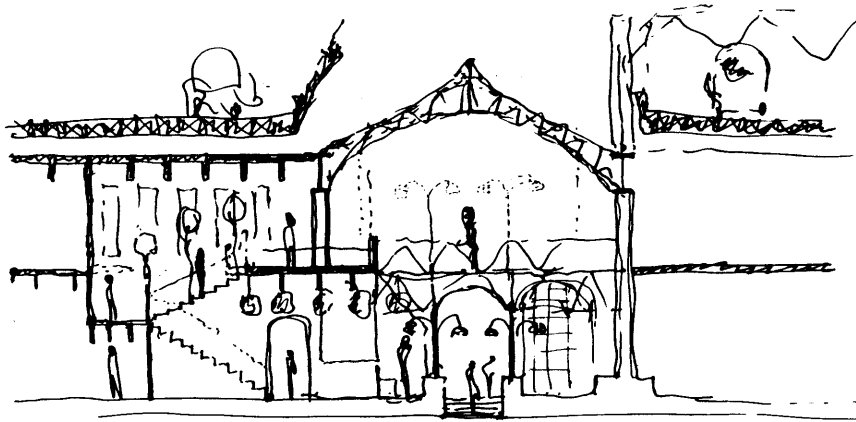


figure 40

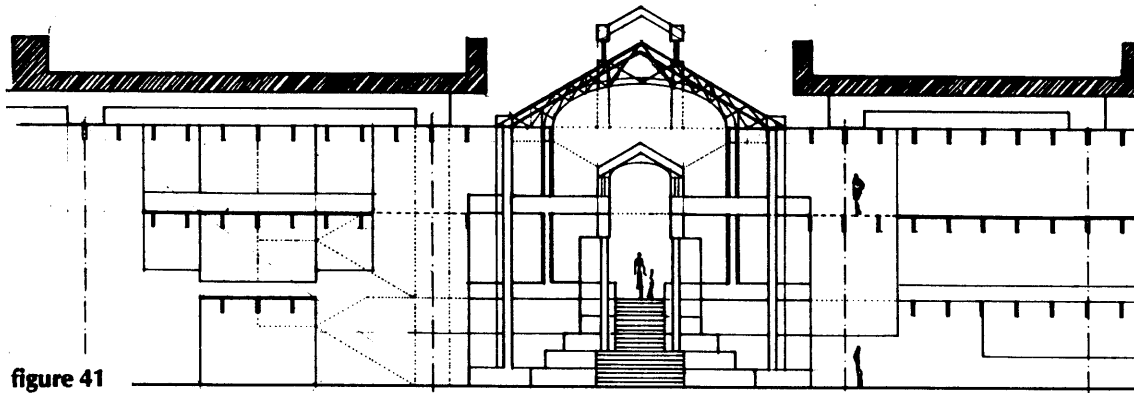
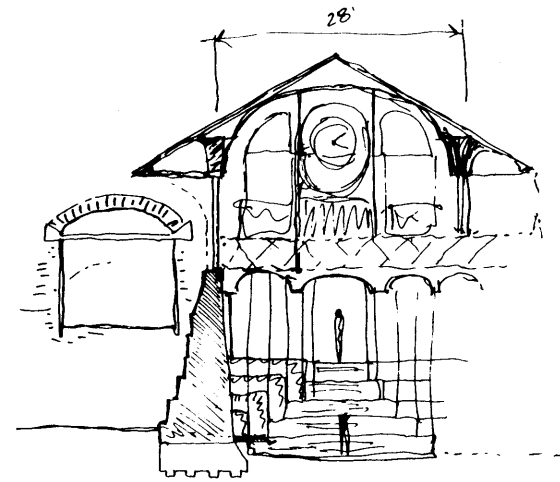


figure 41

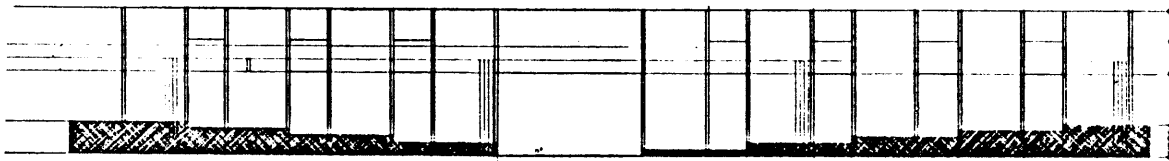


figure 42

Semi-independent shopping areas branch off on either side in a manner inspired by the Persian bazaars, which are traditionally gathered under one roof. Throughout the building spaces are modulated in this way, creating discrete departments while still maintaining their interconnection as a whole.

To set the department store entrance back from the New Hanover Street sidewalk, there is a plaza which also takes advantage of the open bay, and therefore acts as an introduction to the secondary street that starts behind the store entrance.

The design of the department store posits several solutions to the recurring "noise out, light in" dilemma:

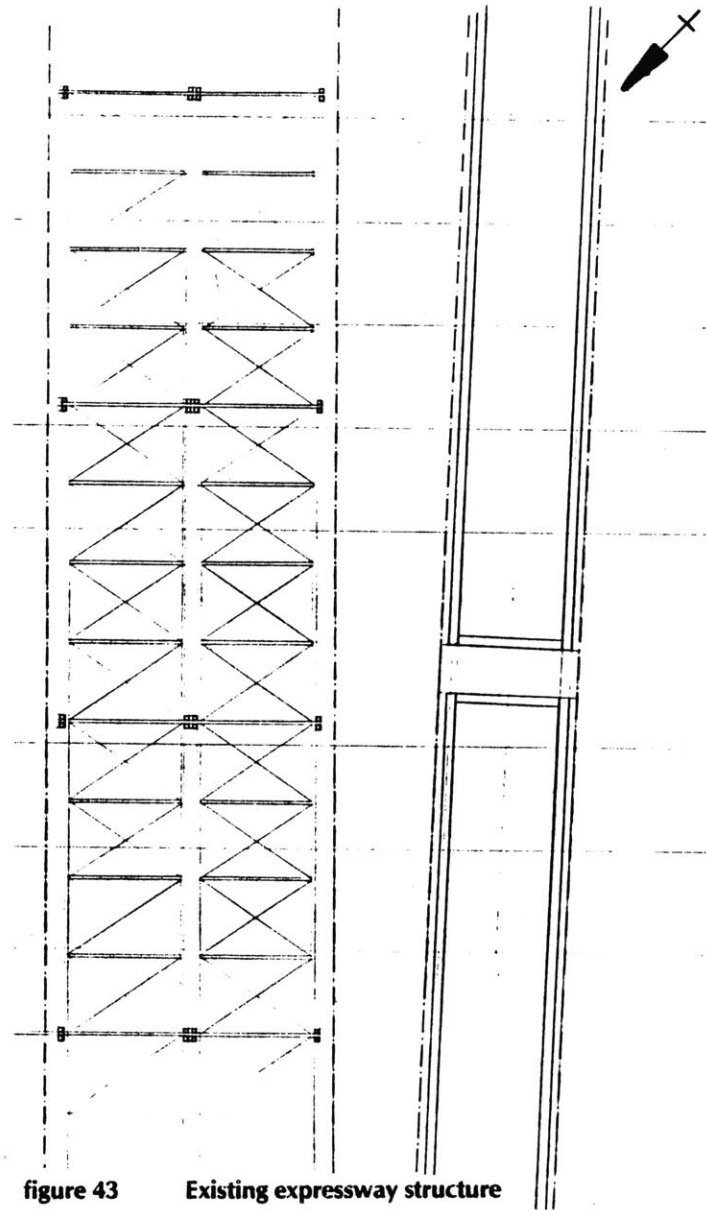


figure 43 Existing expressway structure

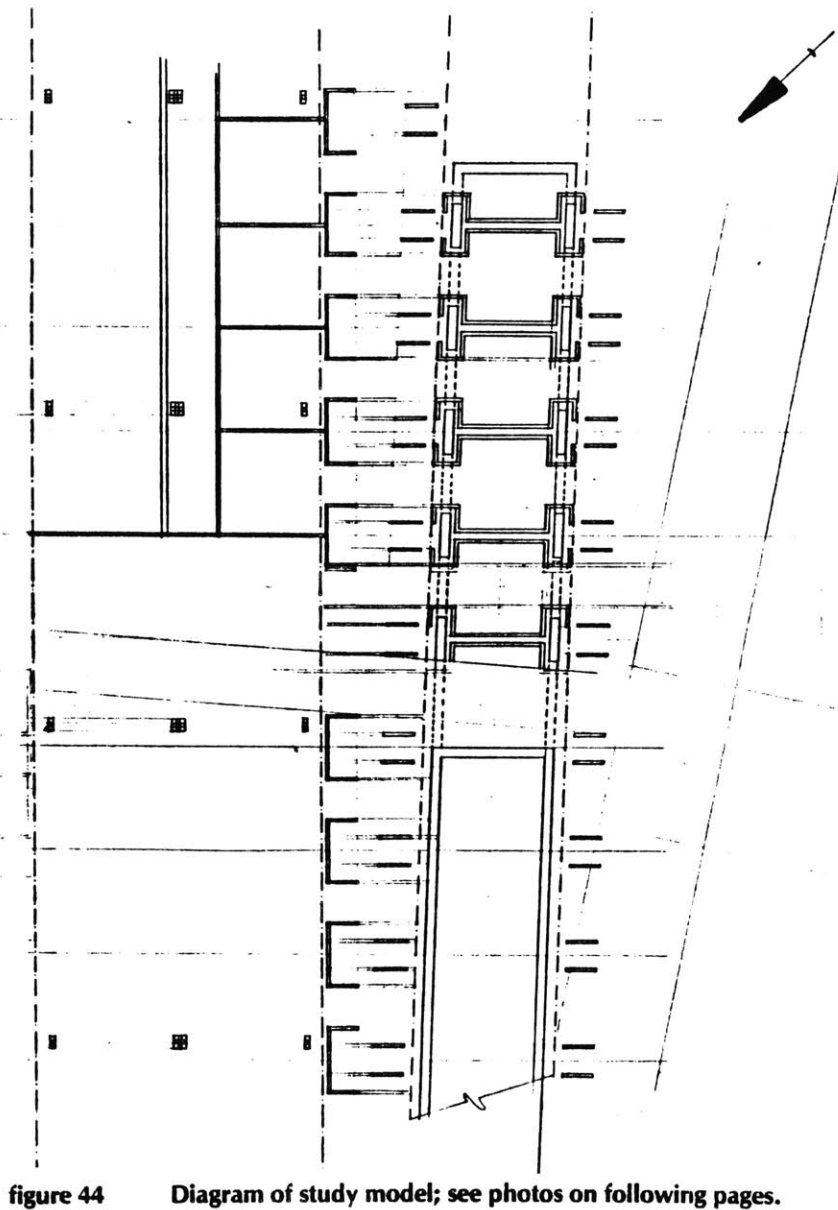


figure 44 Diagram of study model; see photos on following pages.

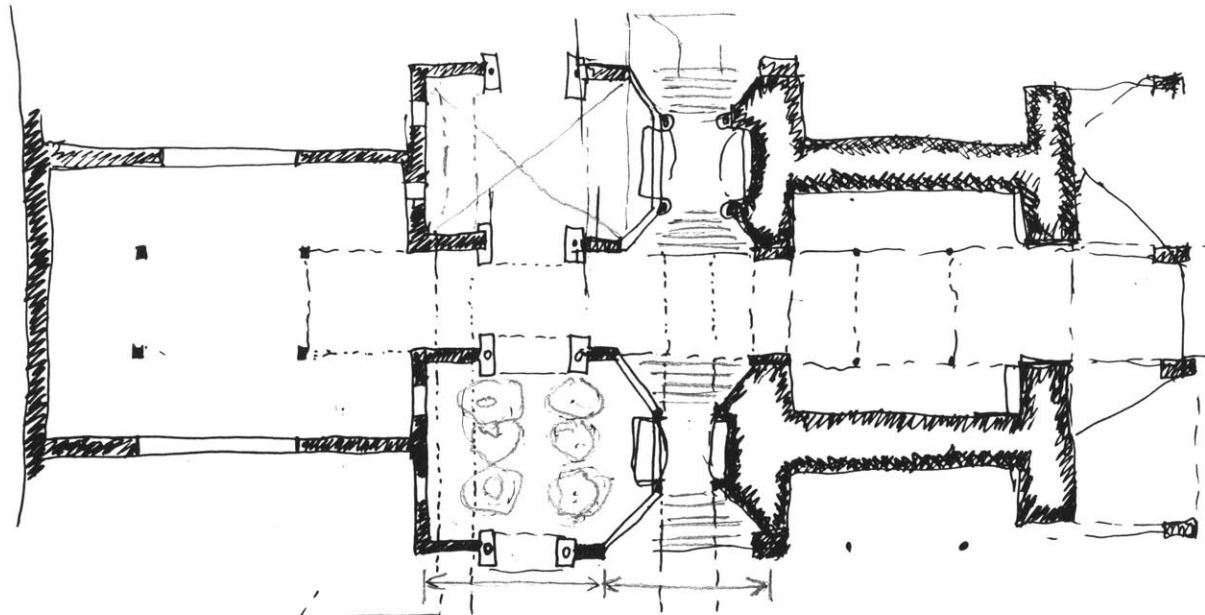


figure 45 Sample floor plan within department store.

Vibration

Utilizing the vibration-dampening qualities of massive masonry, the design anticipates the construction of a heavy building. It must be sturdy.

A plan is evolved to deal with a major potential source of building vibration, i.e. the highway support structures that pass through the department store interior. These are the steel props of the hollowed-out Ramp "B."

Shown in figure #44, such steel supports are wrapped in brick walls, creating an air barrier between the supports and the department store walls, so that there are no rigid connections above ground capable of transmitting vibration.

Similarly, the floors of the various levels within the three-story building will be concrete planks supported by steel bar joists, which in turn rest directly on the new, brick

bearing walls. Again, the concept here is to inhibit the transmission of vibration and then to dampen any residual motion which does occur.

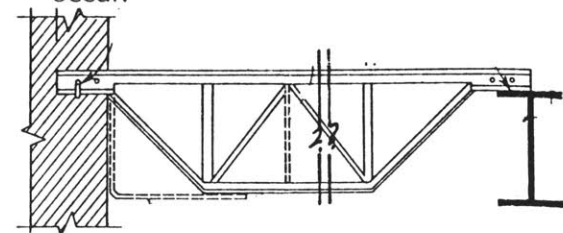


figure 46 Construction detail

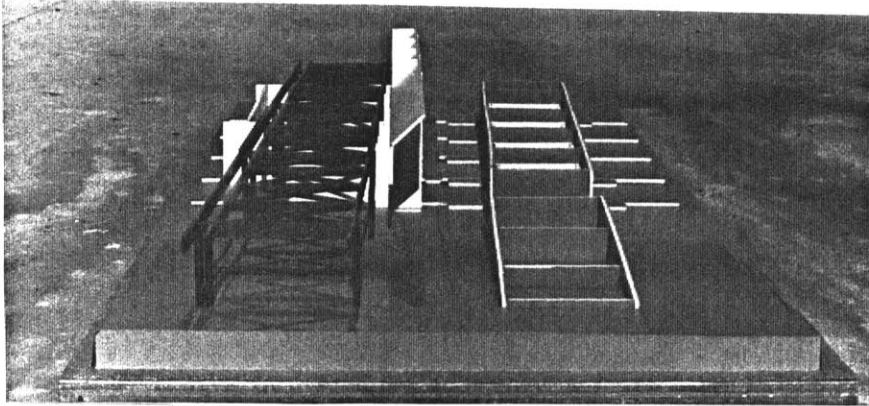


figure 47

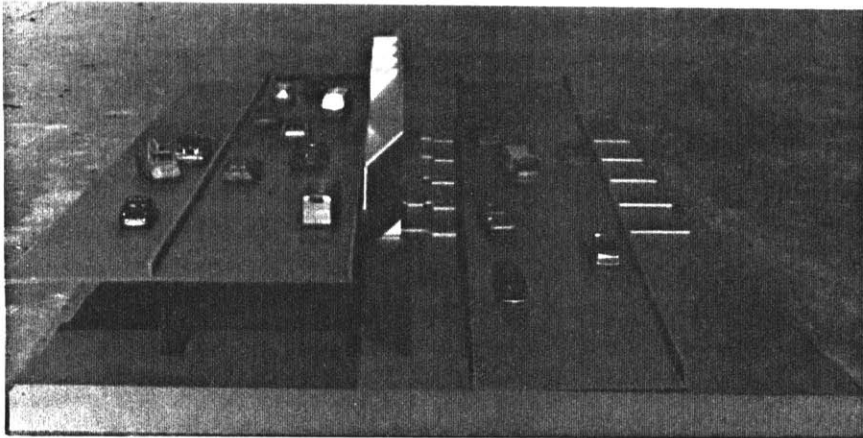


figure 48

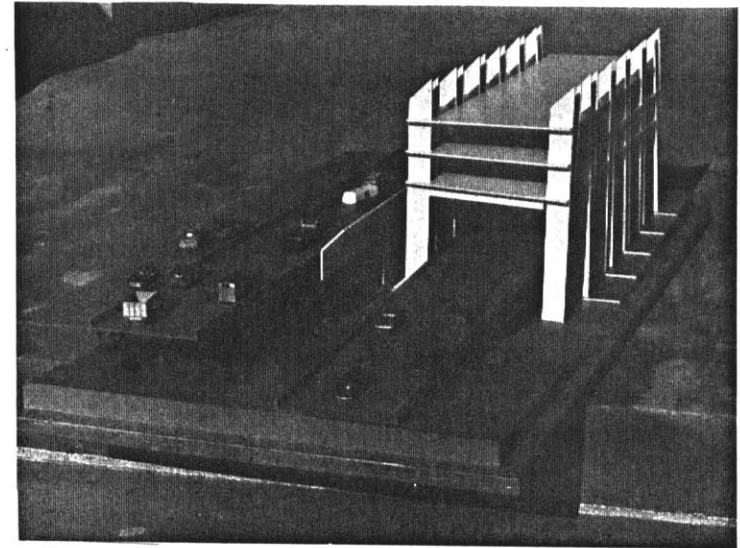


figure 49

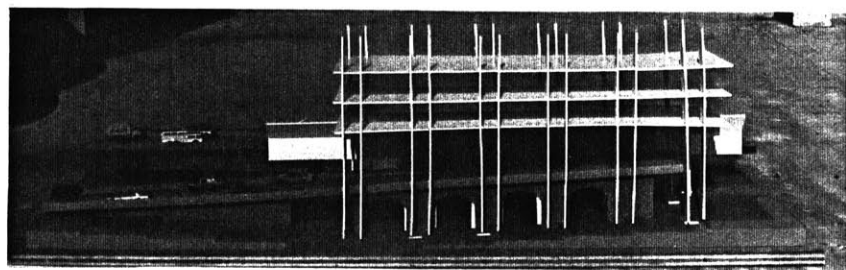
Figures 47—52 are photos of study model showing relationship between the expressway, department store and hotel.



figure 50



figure 51



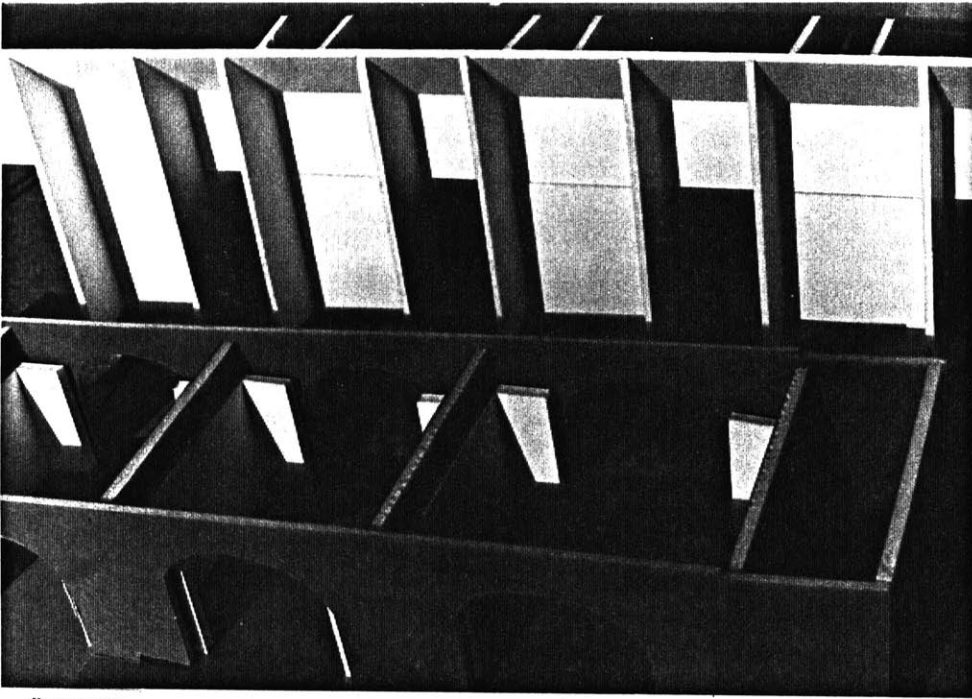


figure 52

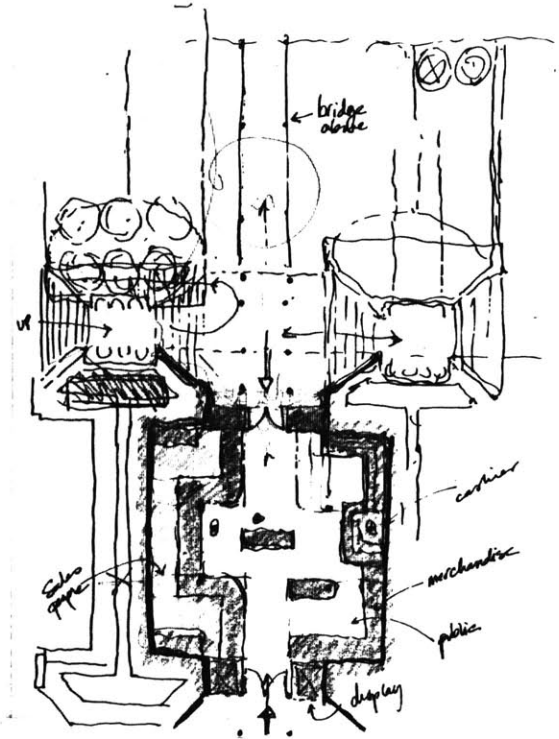


figure 53 Department store study



figure 54 Shop elevation

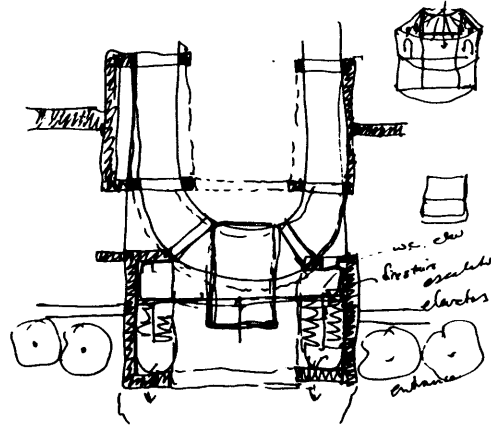


figure 55 Entrance study

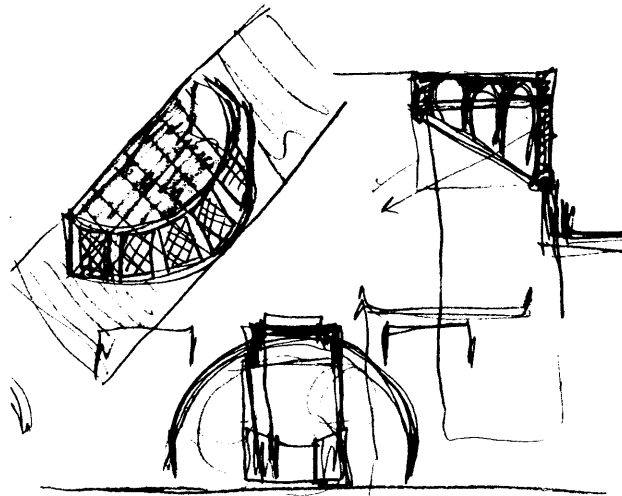


figure 56 Light scoop study

Light Scoops

These two generalized solutions, however, do not solve the more specific problem that opening up the store to light from above also opens a chink through which sound and other vibrations can enter. After a process in which numerous possible solutions were considered and discarded, a design evolved for a discriminating barrier capable of firmly deflecting the noises of traffic, while scooping up the rays of the sun and allowing them to pass through to the secondary street below. It consists of the acoustical "fin" shown in figure #56, which will protrude on either side of the upper roadways. The fin will incline 45° out from vertical so that sound vibrations are not simply contained within the roadway, but are deflected upward and therefore dispersed.

The fin is mainly constructed of concrete, but light-transferring qualities are created by inserting giant semi-circular glass panes (figure #56); these allow beams of light to enter into the canyon below. As is shown, each scoop is protected from highway debris by a chainlink fence, so constructed as to be both practical and visually distinctive.

Because of the Hotel rising to the south, this system only transmits northern, western and eastern light into the department store, advantageous for climate control.



V. CULTURAL CENTER

The Cultural Center houses three different functions within separate enclosures. They follow each other from north to south along the western side of New Hanover Street. The floor of these three buildings will be the

second plane we have already defined.

Vibrations

This component passes over all three ramps of the site, as well as the expressway. It rests on a series of support columns that descend between traffic lanes and ultimately rest on new slurry-wall foundations in the ground below.

Slurry walls of this type have been chosen as a foundation because of the likelihood

that the Fitzgerald Expressway will be depressed below ground level. In that case, not only will this slurry system ensure that these foundations are not an impediment but, more importantly, these foundations are so designed that they anticipate the structural needs of the future tunnels and will serve as their walls.

Because the Cultural Center is the first component we have considered that rises completely above the highway on stilts strad-

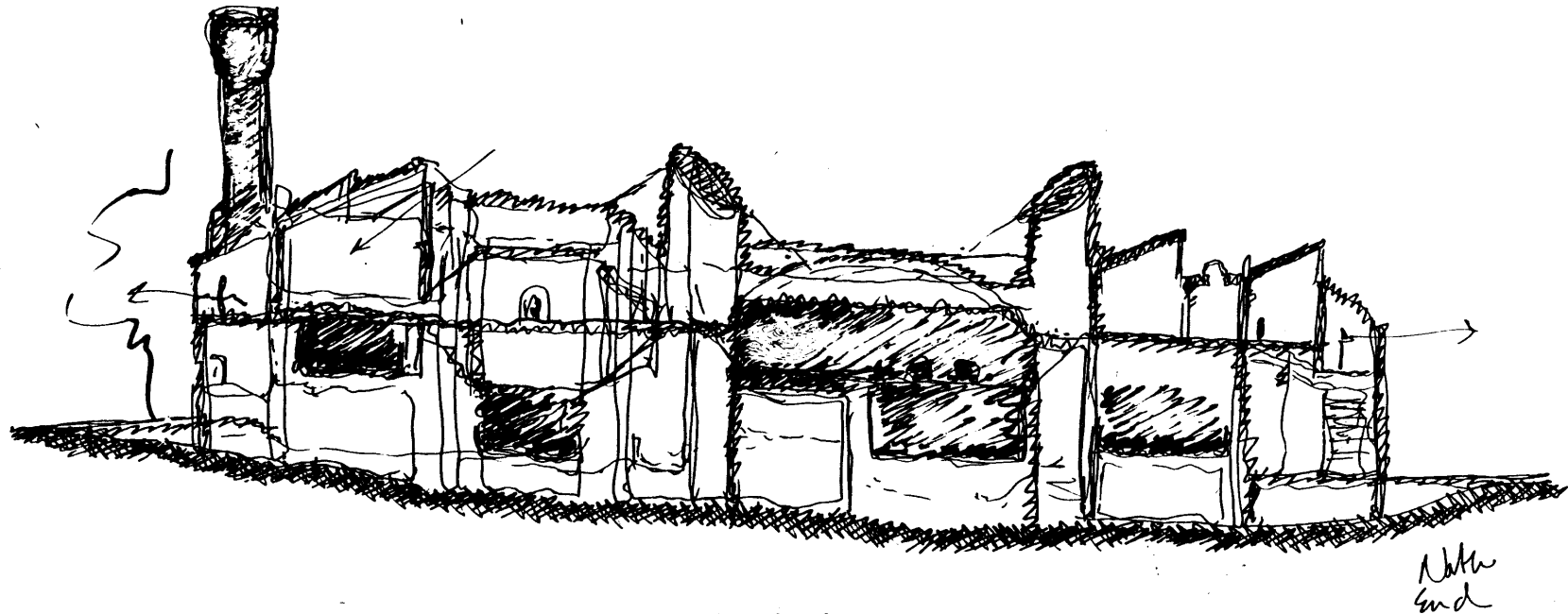


figure 57 Cross section of site at New Hanover Street illustrating the Cultural Center

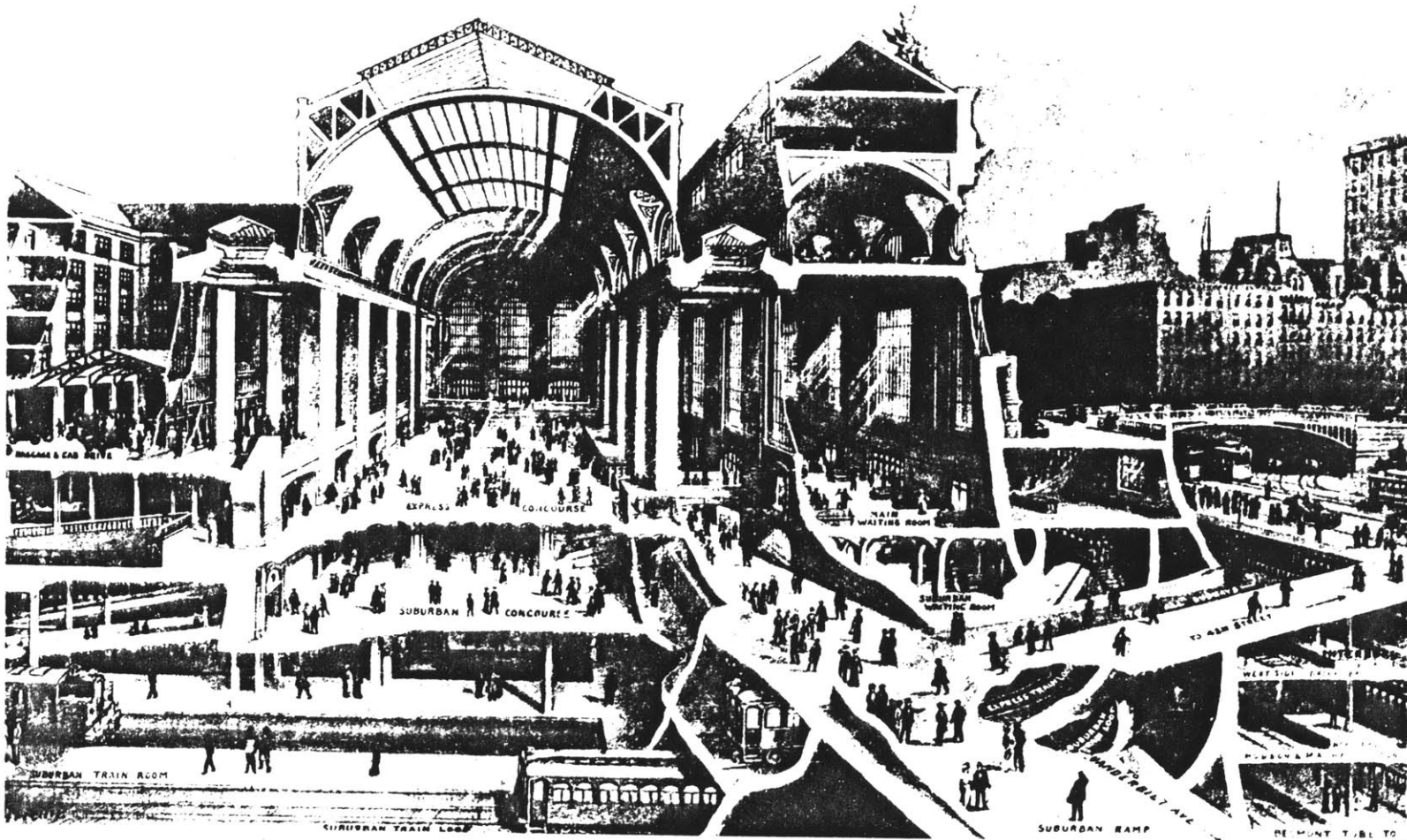


figure 58 Grand Central Station

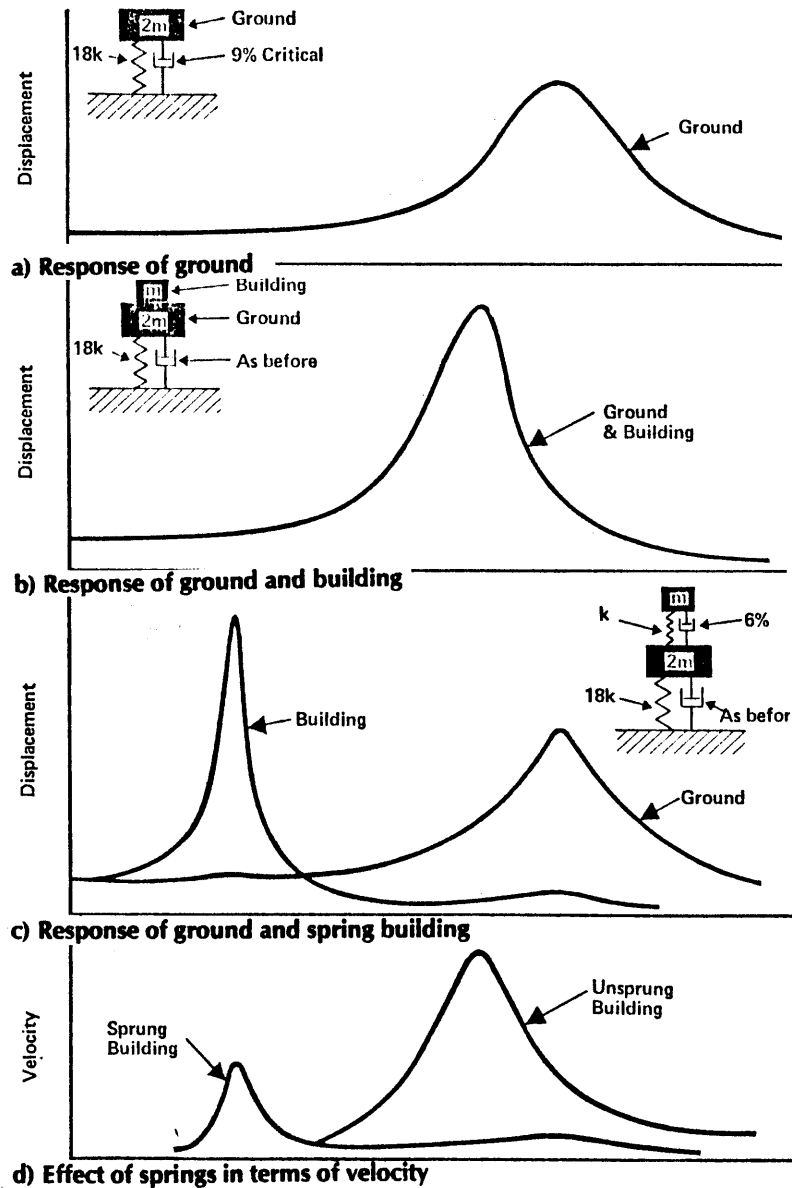


figure 59 Simplified behavior of ground and building

ding the expressway, it is the point where we confront certain problems of vibration most acutely. After all, these three buildings do not benefit from the vibration-suppressing qualities of solid ground. Fortunately, there are rich experiences and proven innovations that present solutions for this:

One has only to look at the way New York has been developed from the early part of the century to realise the tremendous potential that is available by building over railways. Indeed a vital part of the Grand Central Development in New York was the evolution of the noise-reducing material which would get rid of an unpleasant hum . . . Thus our patterns of development will be influenced by the practicality of building on springs. ⁷

The plan for the Cultural Center incorporates exactly such a system of architectural springs between the support columns and their foundations. This technique has general applicability for the Hanover Street Site, and should not only be employed for the Cultural Center and the Office Building, but also for the Hotel.

The Pathway

Linking the parts of the Cultural Center will be a pedestrian walkway transversing the Fitzgerald Expressway, i.e. running north-south as can be seen in figure #64. It will have five access points: two permanently-

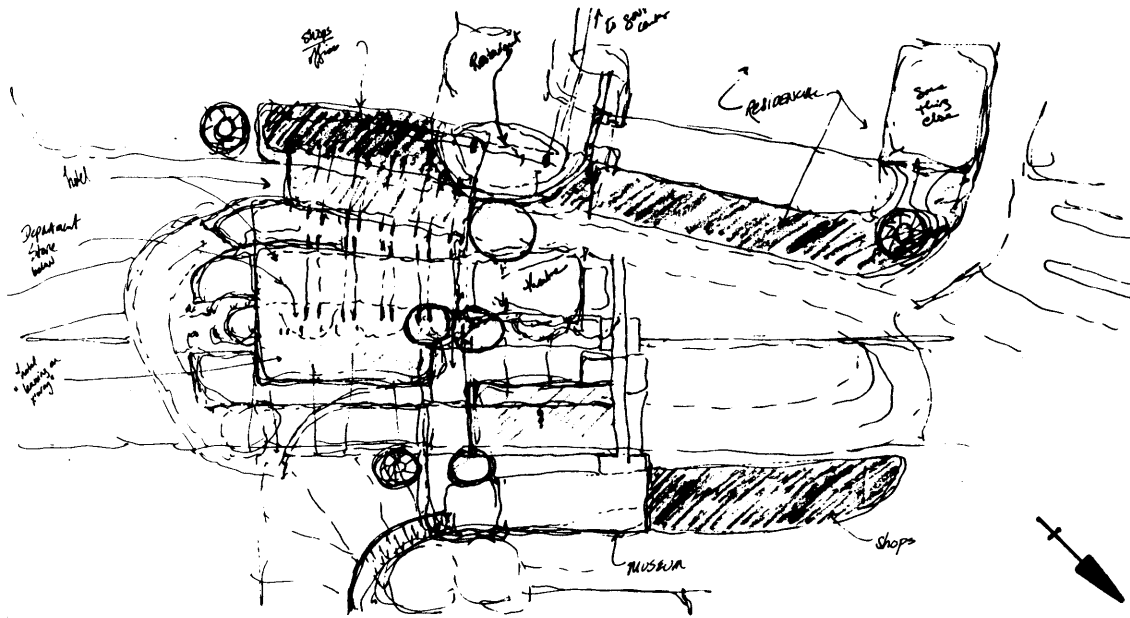


figure 60 Study of hotel "leaning" on expressway

open public ascents located at either end of the walkway, allowing traffic to reach the path from New Hanover Street, plus three additional entry systems, one interior to each of the three cultural buildings, feeding people through elevators from lobby/entrances on the new ground level below.

In a sense, this walkway will be an upper-level echo of New Hanover Street below, and there are some grounds to question how

successful it will be in attracting use. People tend to avoid climbing above established ground levels, especially when they are aware that they will shortly face a new descent and when a direct, grounded alternative (such as New Hanover Street) lies at hand. These concerns do not however constitute an argument against the construction of this walkway; its purpose, after all, is not to rival (much less rob) the main commer-

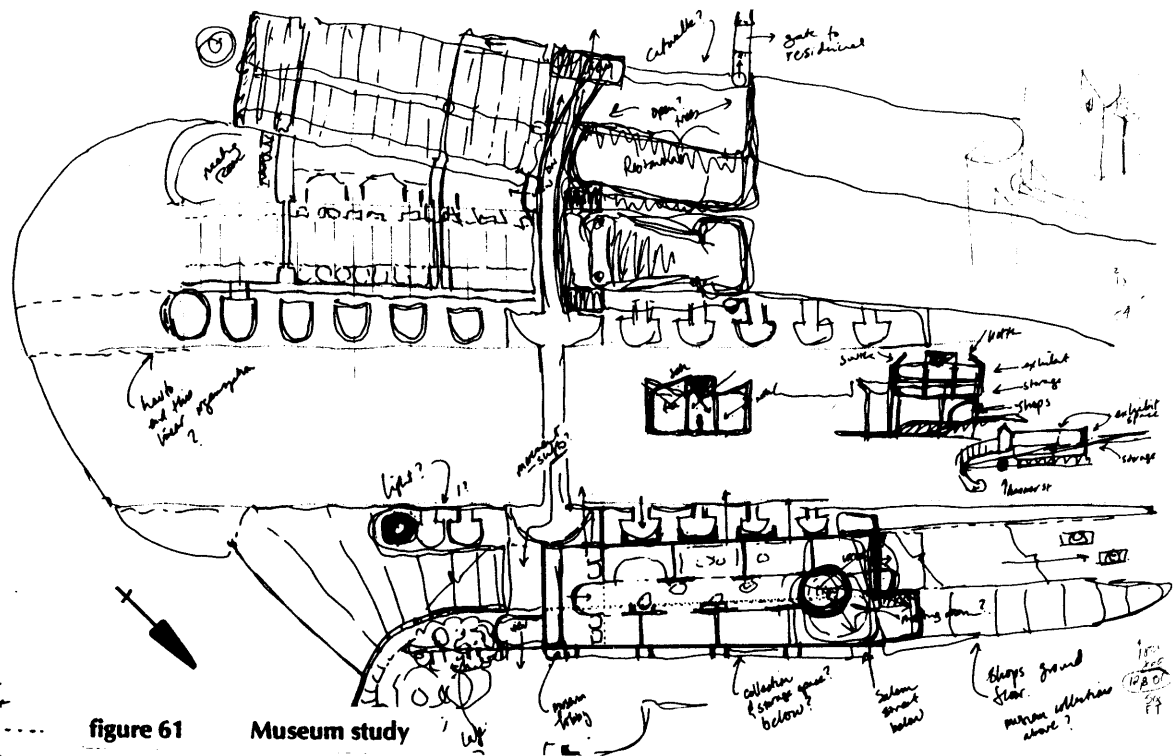


figure 61 Museum study

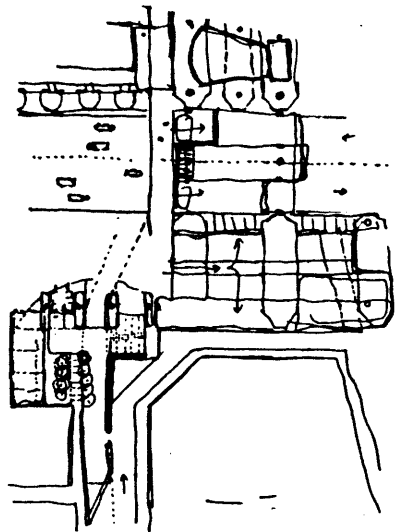


figure 62 Northern Plaza

cial street below, nor does it try to justify its existence simply on the basis of its own intrinsic recreational qualities. This pathway is being created as a necessary access to the three units of the Cultural Center, plus the office building which opens on its eastern side, and conceptually it allows these to open up on a relatively tranquil space which is not simply the expressway.

Finally, there are several features of this

upper level walkway which will make it appear more natural than it might otherwise be: First of all, it is roughly at the same elevation as the natural ground level of the Government Center to its immediate south, so that walking up to the pathway will have an air of *returning* to a previously established ground level despite the fact that there is no direct physical bridge to the Government Center Plaza. And second, there will be quite

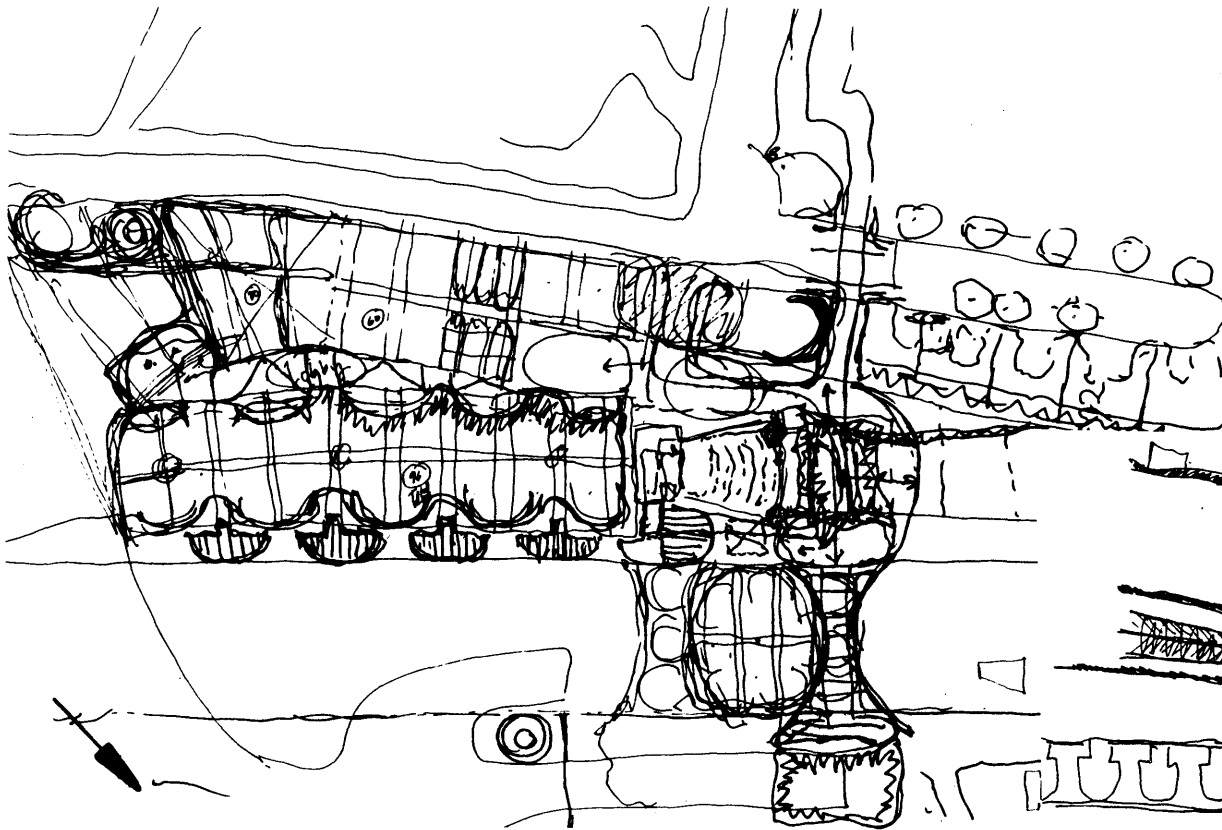


figure 63 Connection as inhabited "bridge"

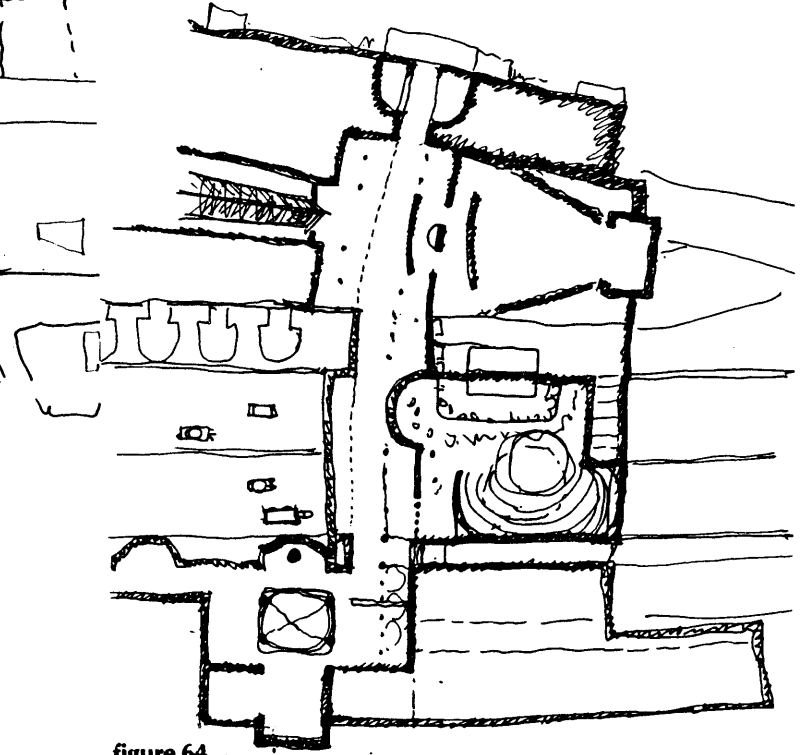


figure 64

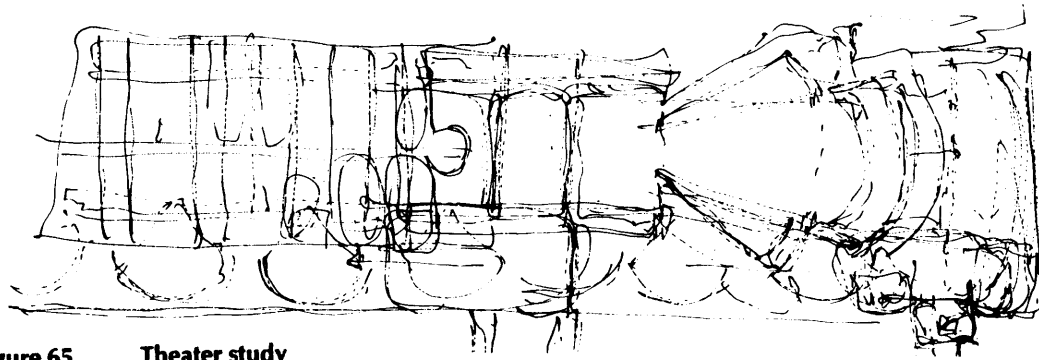


figure 65 Theater study

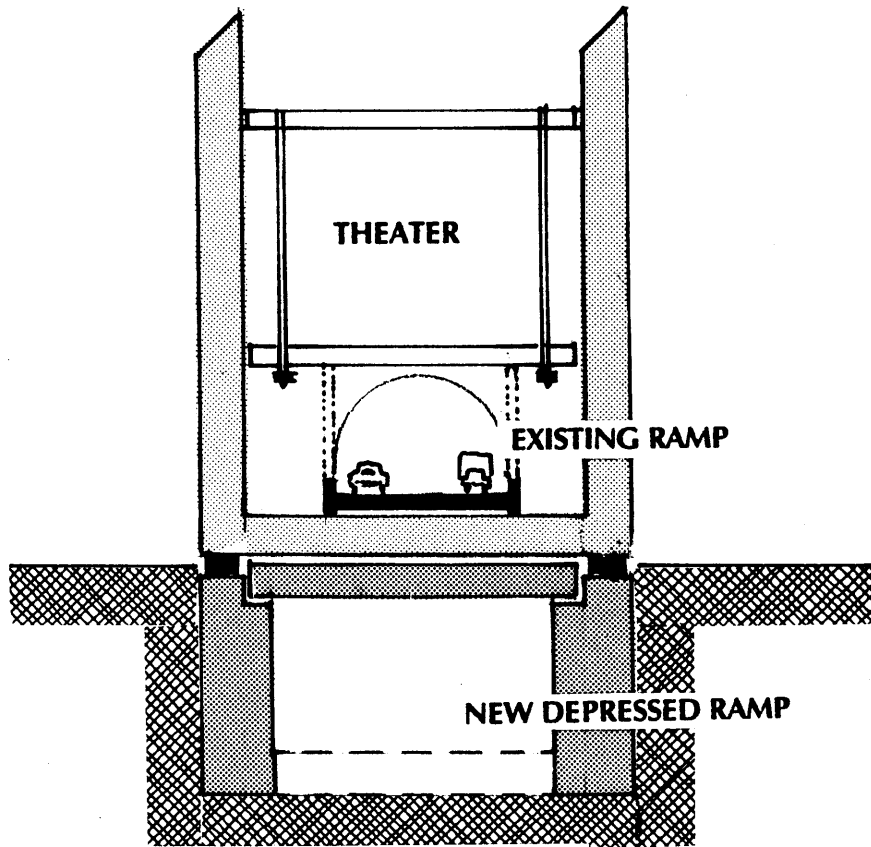


figure 66 Cross section of theater

pleasant views from both ends of the walkway (over the historic North End, and over the busy southern market streets) which will be appealing in their own right.

The accompanying drawings of the subunits within this Cultural Center are self-explanatory. I have assigned the northern unit (over Ramp "D") a tentative function as a museum, while the space over the expressway suggests a nightclub or discotheque. However the theater, planned as the southern-most Cultural Center unit, requires some mention: This theater is above that spot where ramps "A" and "B" cross, so that there is no opportunity to sink support columns directly beneath the stage or the seats. This is circumvented by a system of roof girders, supported by columns placed on either side of the ramps. The theater essentially *hangs* on a network of cables and springs. This decision also lends itself to special precautions against vibration, imperative because of the acoustical sensitivity inherent in theaters. At the same time, this structural necessity makes the theater visually distinct . . . even theatrical.

• • •

VI. OFFICE BUILDING

We now turn our attention to the eastern third of the site. It is a strip 140 feet wide (east/west) and roughly 400 feet long (north/south). It covers the mouth of the Callahan

Tunnel and the junction between this tunnel and the Fitzgerald Expressway. Two things suggest an office building for this space. First, it is somewhat removed from the pedestrian/commercial flow that will pass through New Hanover Street. And second, the whole Hanover Street Complex is adjacent to the Government Center and downtown business district, so that an office building on this location would feed into existing patterns of association and would be

economically quite viable.

The focus for the design of office buildings is to provide good work-places. As a result, the plans here concentrate on generating some approaches to the well-known requirements and problems contained in such buildings. The questions of interface between highway and new construction are not as prominent here as they are in relation to other components of our Complex.

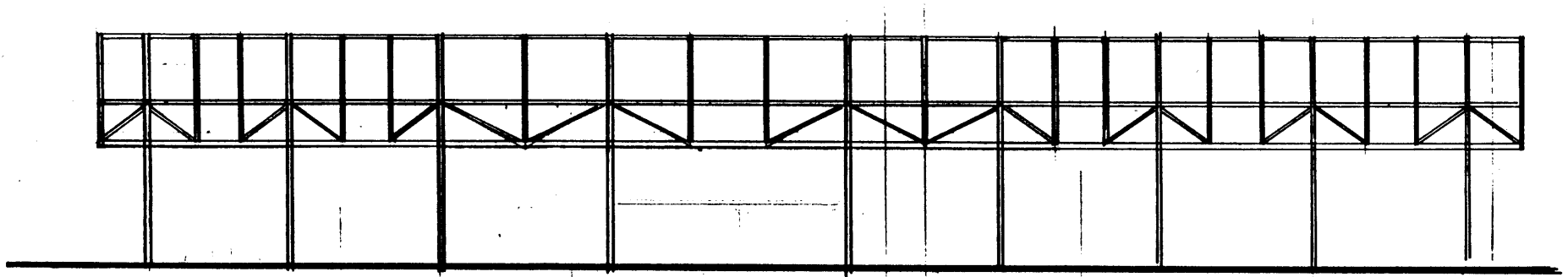


figure 67 A simple, adaptable structure on stilts

However, before going into the internal organization of this office building, I would like to discuss the challenge posed by the possibility that future highway changes below this office building might intrude on any supporting structures we erect.

In the overview to this thesis, we encountered the assertion by Alison and Peter Smithson that change “is impossible if roads

are locked up with building complexes.” Certainly this site suggests many ways in which the underlying traffic patterns and structures may change. Given that radical transformations are possible in the nature and volume of traffic on both the expressway and the tunnel—and given that the expressway may be depressed and may then demand a whole range of reorganized accesses

to the tunnel—there are too many variables at work to accurately anticipate the details of future changes in highway requirements.

The problem is then posed of planning adaptability into the system of underpinnings to this office building, so that it will not emerge as a serious local obstacle to changes serving Boston on the scale of the region.

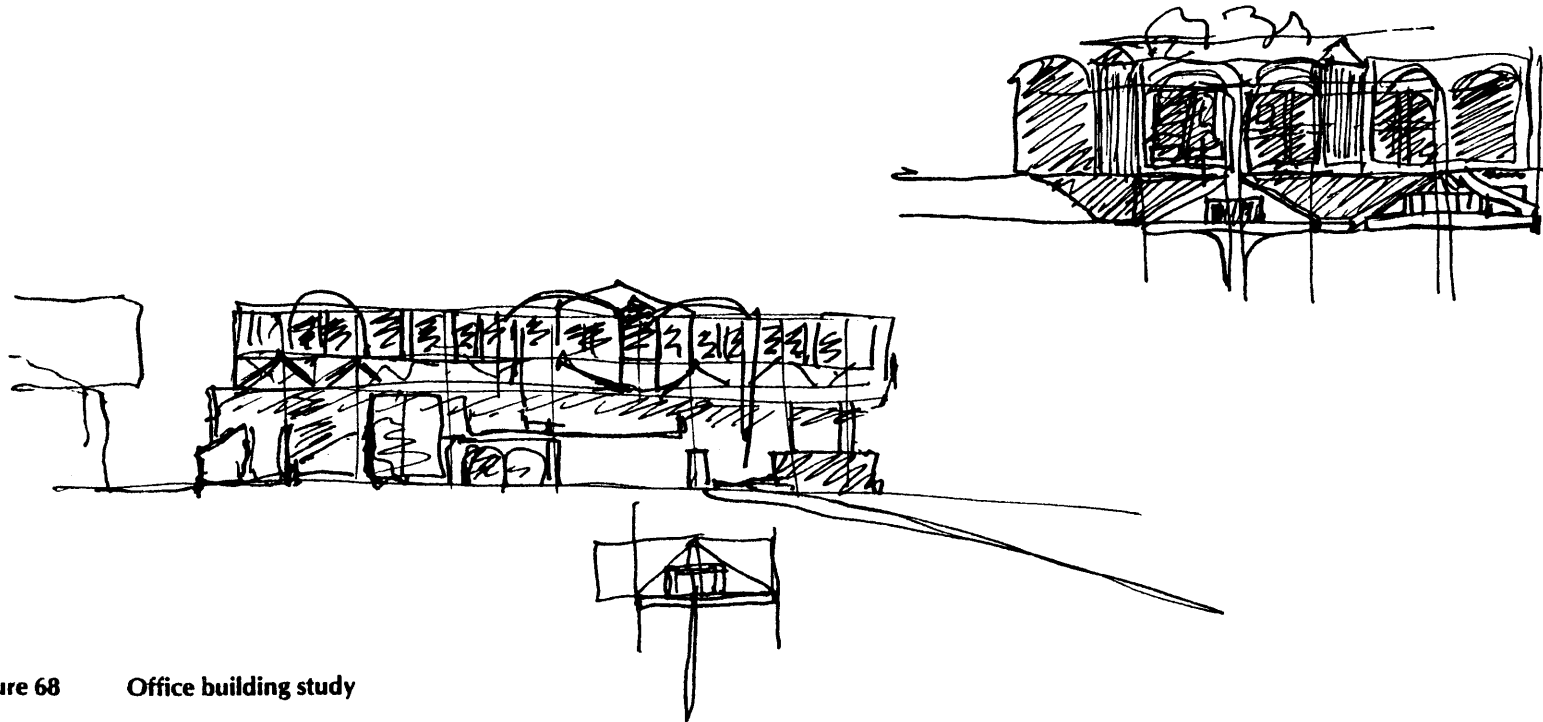


figure 68 Office building study

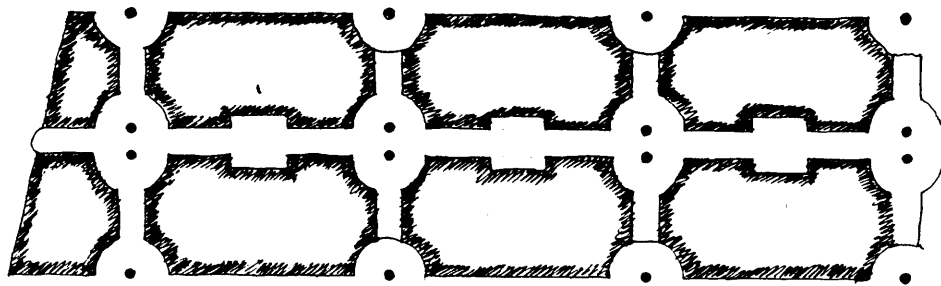


figure 69 Office diagram

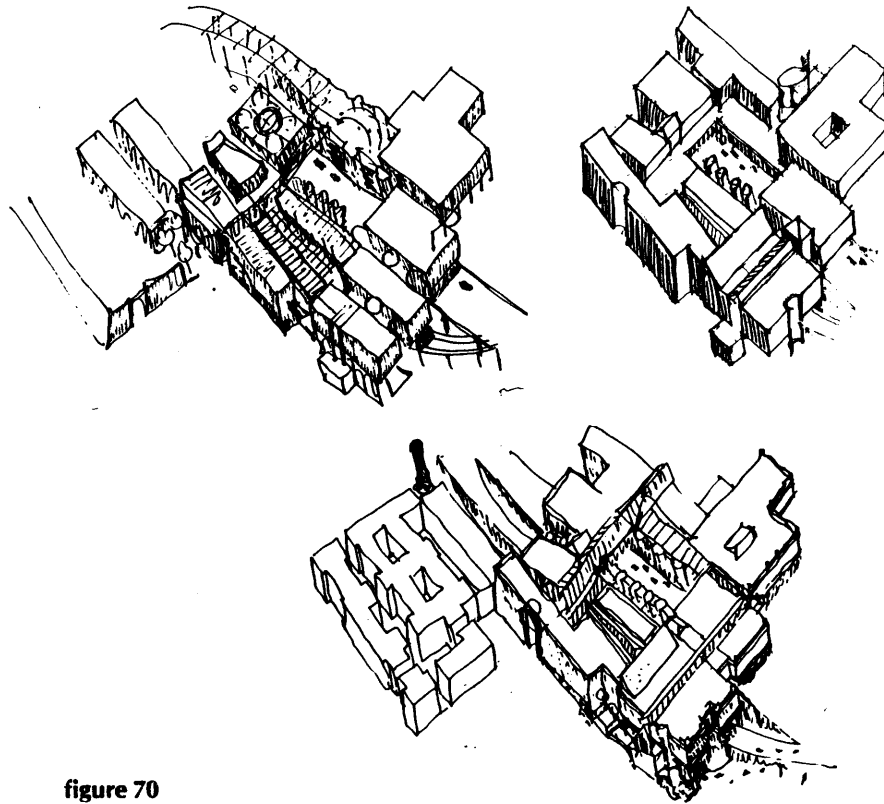


figure 70

Building Organization

I would like to draw the reader's attention to the following points, in regard to figures 69, 70 .

—The simple rectangular shape of the building diagram is fragmented into four sizable but sympathetic groupings. Each of these four corresponds to a ribbon of traffic below, and physically straddles it with supports.

—The outside walls dip in and out to raise the ratio of surface area to internal floor space, and thereby allow more windows and bilateral lighting.

—The plan resists the "open office" norm whereby private managerial offices monopolize the perimeter and daylighting, while the secretarial jobs are penned into unrelieved and artificial interiors.

—An interior street runs north/south connecting the various parts of the office building. This street has three levels: The middle one is designed to attract the principal traffic and the top level is widened to allow additional daylight into this middle corridor.

—The groupings allow vertical access to the buildings from below. People will pass up, between the roadways, arriving in between sections of this building.

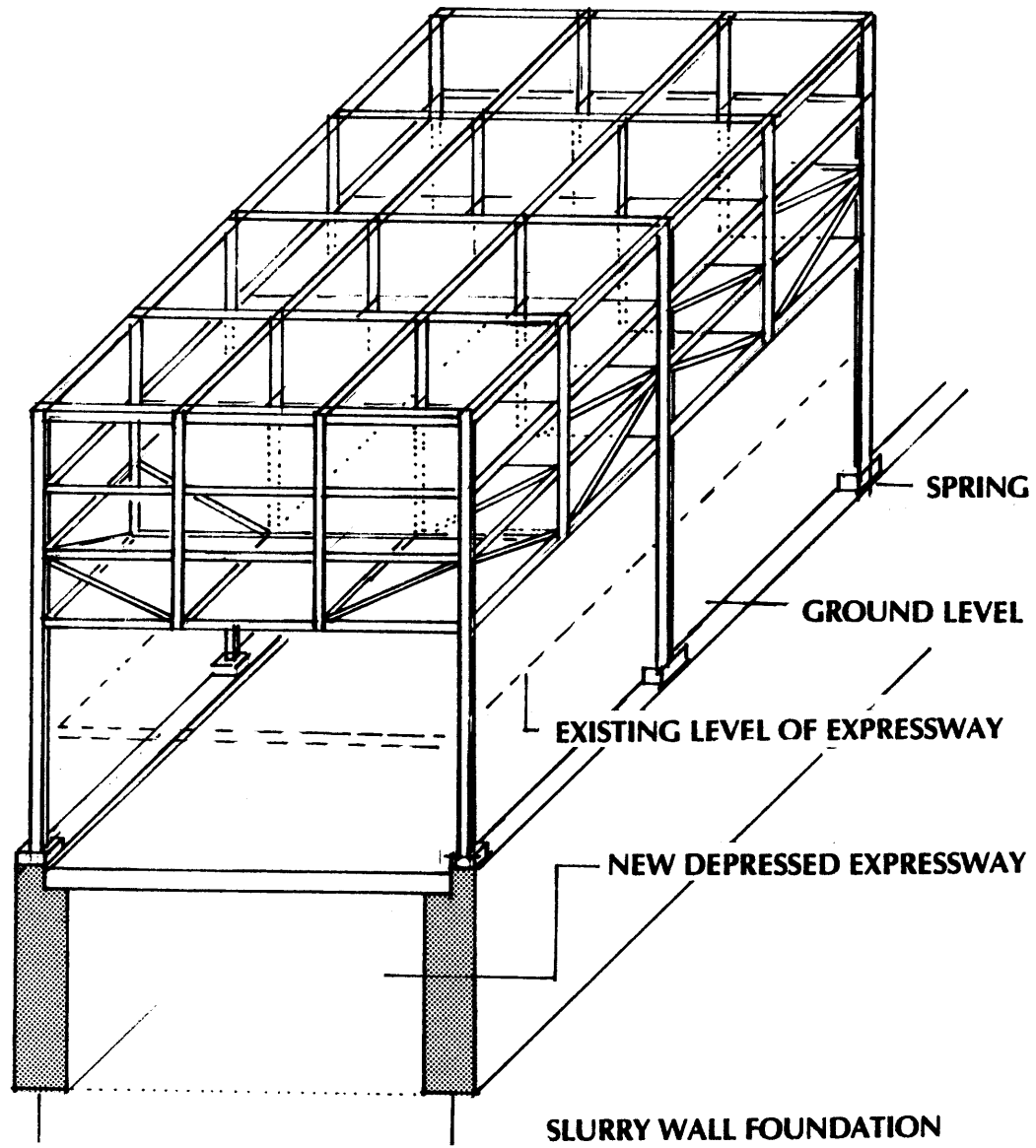


figure 71 "Cage" System

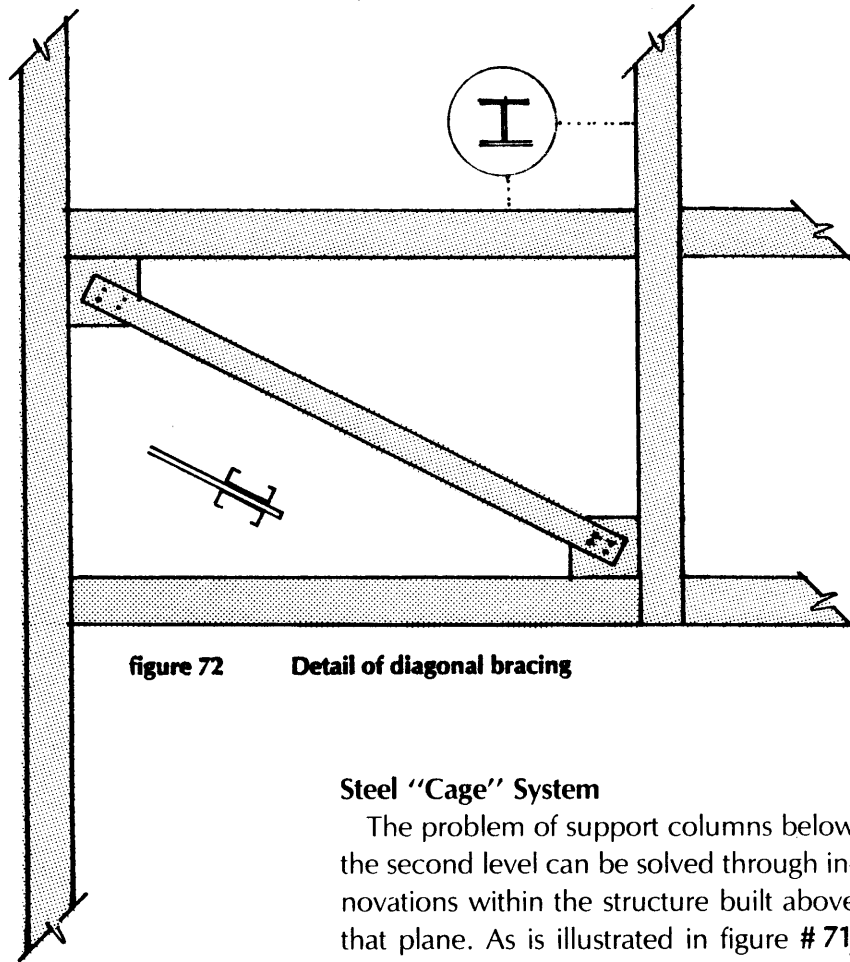


figure 72 **Detail of diagonal bracing**

Steel "Cage" System

The problem of support columns below the second level can be solved through innovations within the structure built above that plane. As is illustrated in figure # 71, the entire skeleton of the office building incorporates a steel "cage" system. Diagonal braces are used, for example, in the 90-foot span over the expressway, to transfer the loads of the building away from places where support columns are impossible. This

is done by building the cage system in such a way that diagonal braces can be easily inserted in the structural wall. A habitable, 30'-by-30' structural bay is created which can adapt itself in either direction. This is a building which rests on a pattern of stilts, and yet it is so designed that it can comfortably, and even relatively cheaply, adjust to major changes in that pattern.

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VII. RESIDENTIAL BLOCK

The final component of the Hanover Street Complex is the block of residential housing to be built on Lot 7, south of the expressway and adjacent to the western edge of Hanover Street.

Relevant points have already been sketched on page 19 and discussed in abstract form on pages 24 through 27.

While this Residential Component is essential to the balance of the overall Complex, in another sense the problems it poses are incidental to the central theme of my thesis: utilizing highway land-scrapes. Lot 7 is a conventional lot, regular in size and access, which is available for annexation by the Hanover Street Complex simply because it is empty and because of its adjacent location. This component is therefore a conceptual move rather than a focus of expressway design problems, and I have left my proposals here far more tentative. The sketches of the components scattered throughout the thesis (see, for example, page 16 as well as the sketches within this chapter) show some diversity and speculation.

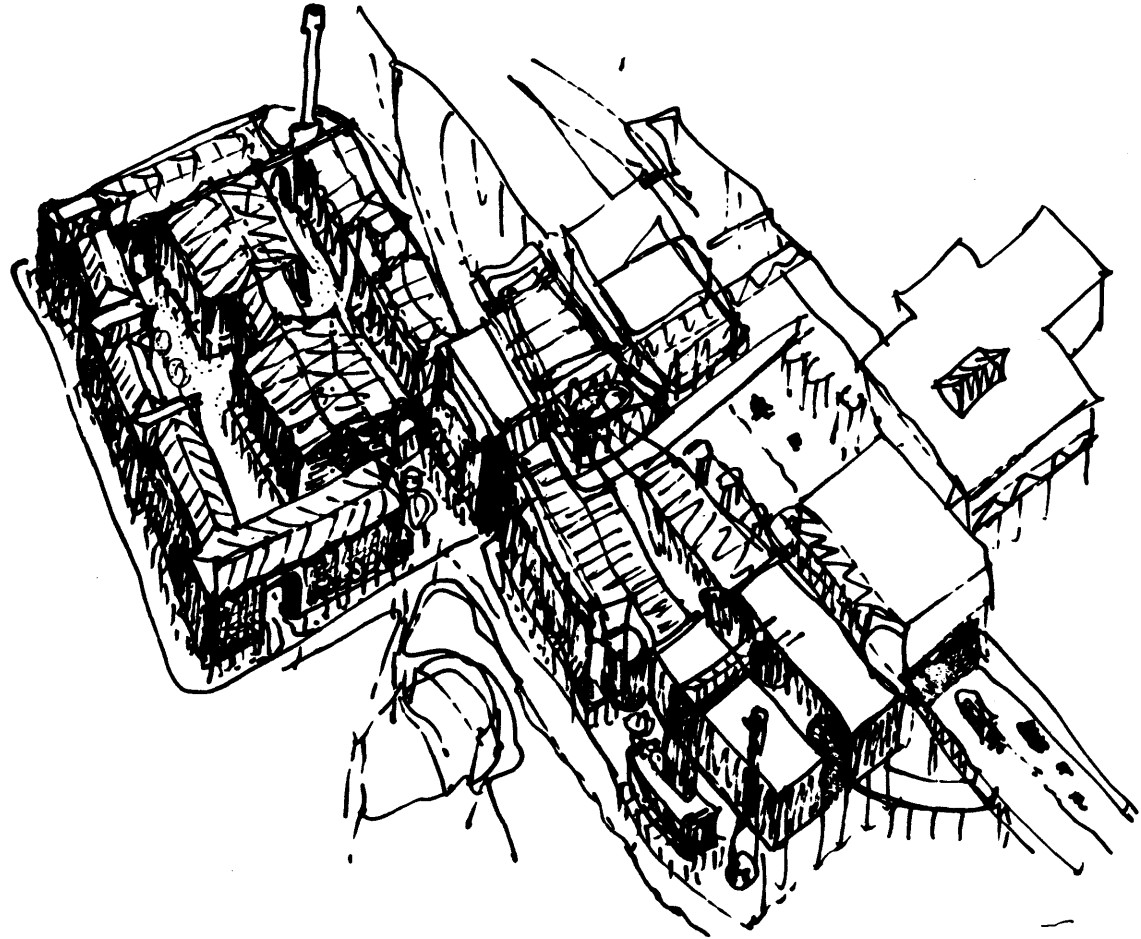


figure 73 Massing study

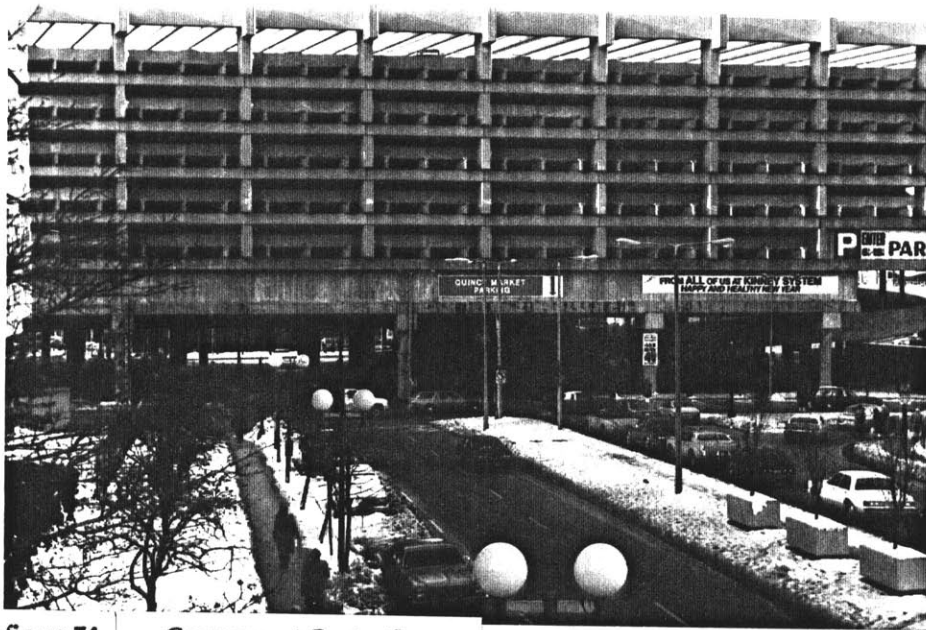


figure 74 Government Center Garage

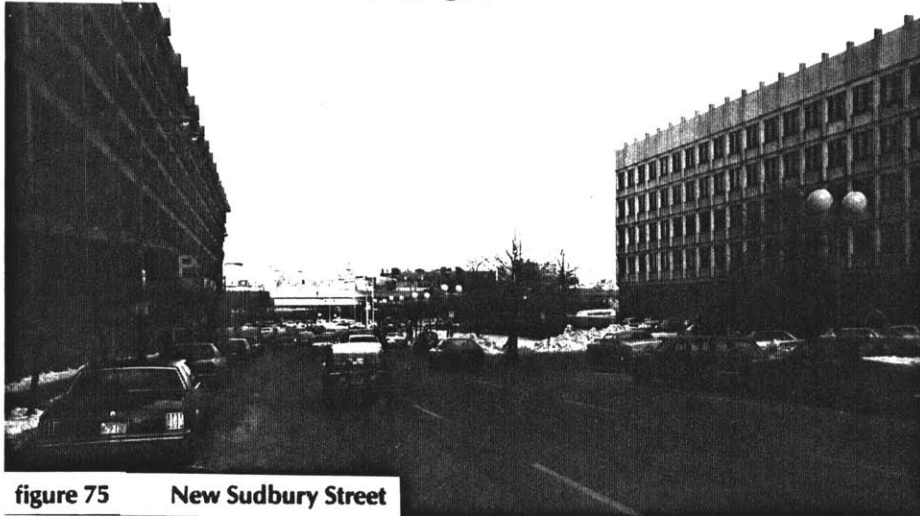


figure 75 New Sudbury Street

Yet, in all its incarnations, the Residential Component remains defined by its function and by the conditions inherent in its location. It is a residential “outpost” in a predominantly business district. Three adjacent streets are heavily used by downtown business traffic: New Congress Street, New Sudbury Street and the Expressway. And two dominating structures lurk on the periphery of Lot 7: the Government Center and the “Government Center Garage” (see figures # 79 and #74).

Placing a residential outpost in such a seemingly alien environment can be defended from a number of sides:

—First, because of the development of New Hanover Street and the Complex as a whole, this residential component will avoid a “besieged” feeling through easy contact with a well-established residential area to the north.

—Second, it is not the only non-Governmental structure south of the highway. The historic and precious Blackstone Street block with its Haymarket is adjacent to the Residential Component to its east.

Without a Residential Component on Lot 7, Blackstone Street would emerge as an abrupt border between the Government Center and the Hanover Street Complex; this would threaten the present character of the

Blackstone Block. By erecting our Residential Component, we move that border one block to the south (to New Congress Street) and allow the Southern Plaza to emerge as a contained gathering point and transitional area. In a sense, this component reinforces and buttresses the Blackstone Block, so that together they create a viable strip, south of the expressway, which is linked to the north and not dominated by the Government Center to its south. This contributes to the survival of one of the few living links to the Boston of the 1600s.

—Third, in keeping with this preservative function, there is an important issue of scale and texture which needs to be brought out. I propose that the Residential Component complement, even somewhat mimic, the Blackstone Block in scale and materials so that essential continuity is maintained. This means that the Component should not be higher than four stories.

A corollary advantage of this decision is that it respects the present view Government Center has of the North End and of the North Church steeple, which is important for aesthetic reasons and as a visual link between these two parts of the city. A high-rise apartment building on this site would be inexcusable. The exception to this consideration is the southwestern corner of Lot 7,



figure 76 New Congress Street

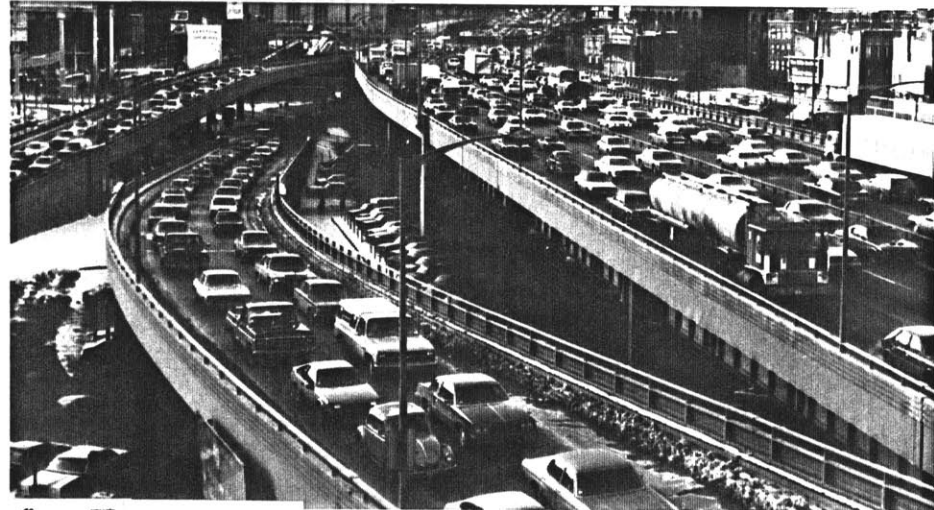


figure 77 Expressway

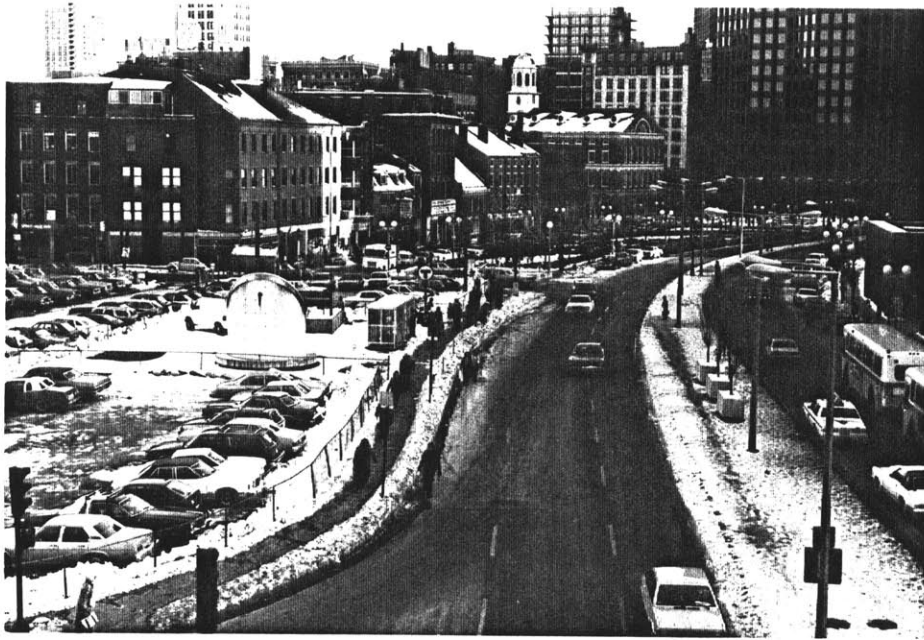


figure 78 Blackstone Block



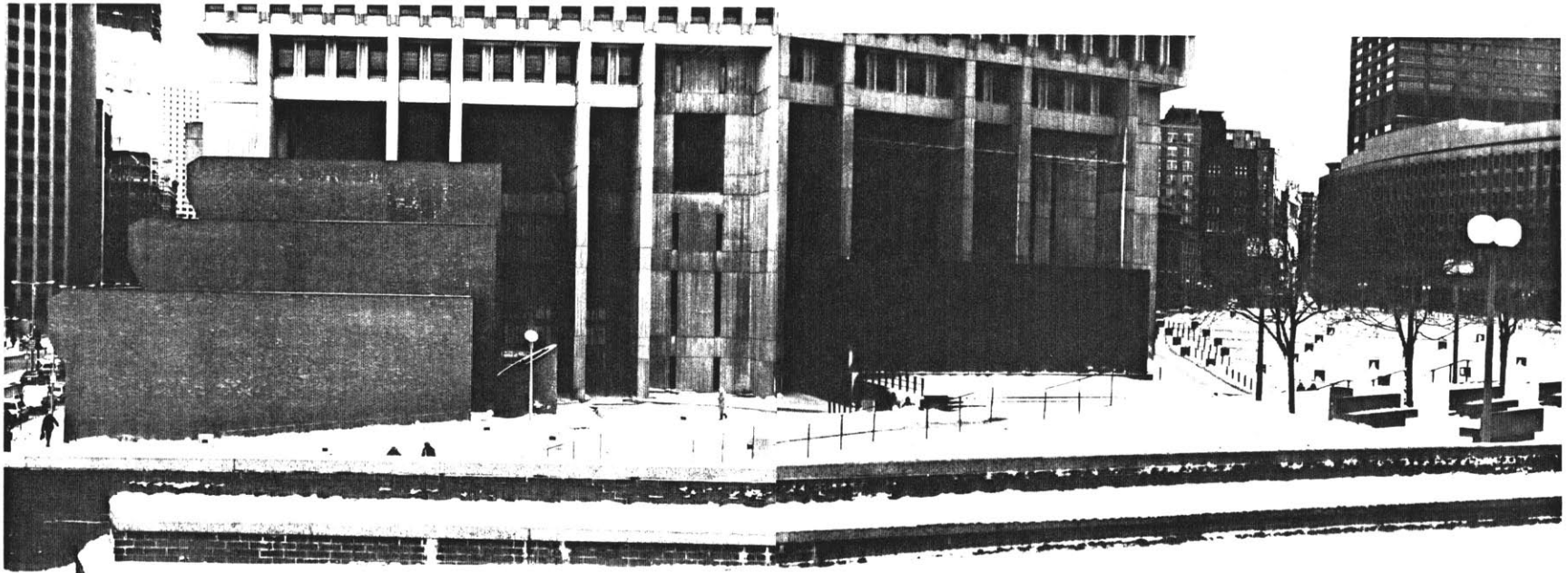
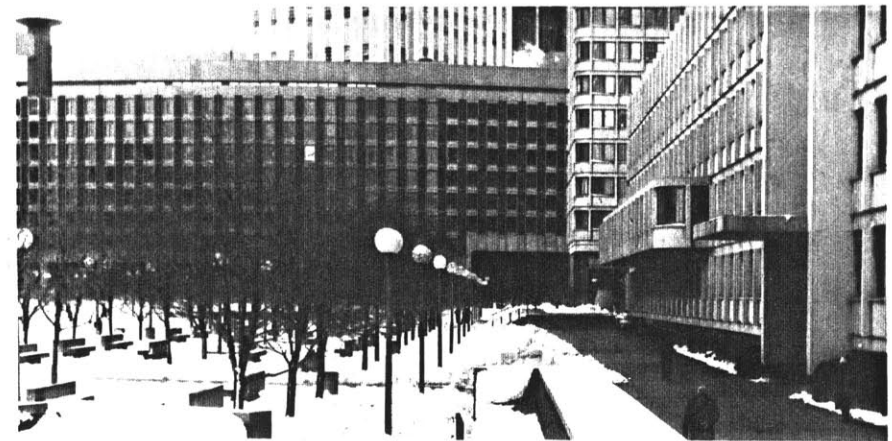


figure 79



Government Center Plaza

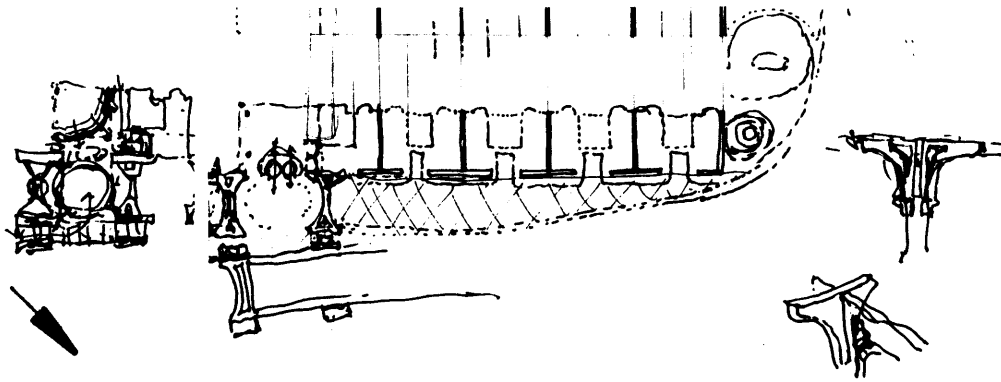


figure 80 Partial Plan

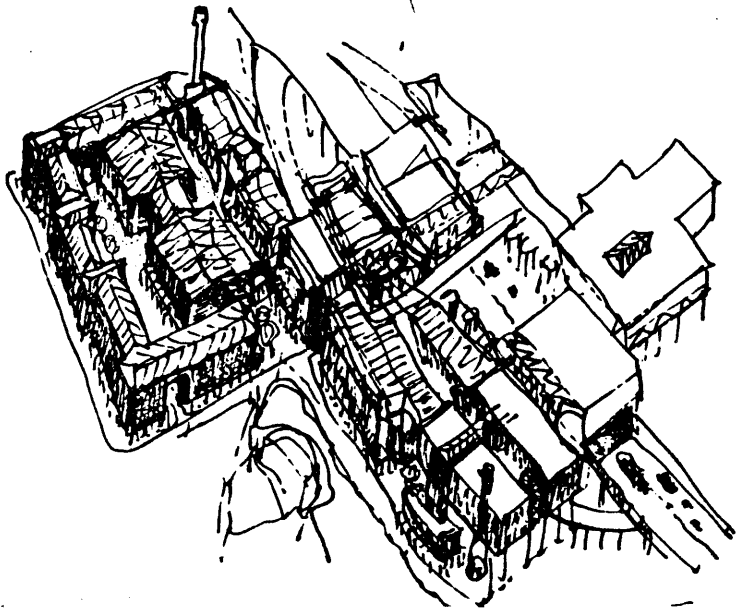


figure 81 Diagram of relationship between Residential Component and the Hanover Street Complex

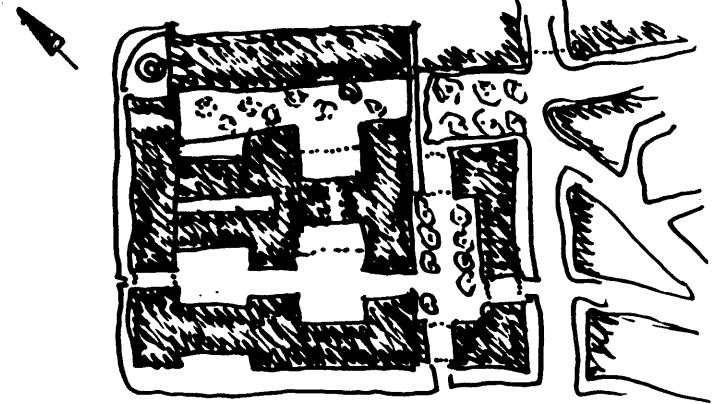


figure 82 Site Plan

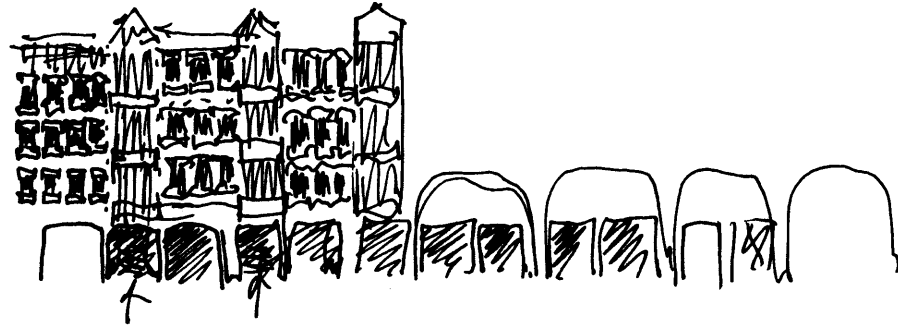


figure 83 Study of Residential Elevation

where a high structure would neither obstruct the view nor necessarily detract from the continuity along Blackstone Street. The final design for the Residential Component might include an apartment tower there.

—Fourth, establishing residential life on *both* ends of New Hanover Street ensures safety for the street and for those components which function during hours when the Government Center becomes deserted.

Several decisions ensure that the Residential Component meets the needs of its housing function:

—Through traffic will be discouraged structurally, limiting vehicular penetration of Lot 7 to cars dropping people off at the housing. There will be no major parking lots at ground level.

—Pedestrian entrance to the project will be mainly through a major opening onto the

Southern Plaza of New Hanover Street, funneling life into the overall Complex and shielding residents from the harsh activity of the other adjacent streets. In this way, the Residential Component as a whole will “lean” into the New Hanover Street Complex and function as an integral part of the new sub-community.

—Interior courtyards are suggested so that many windows and building entrances will open into areas that are distinctly residential and insulated from the general public.



VIII. TOTALITY

Previous chapters focused on the individual components, their functions, and the specific design considerations made incumbent by the expressway. This final section explores, principally through the sketches gathered here, the tension between restraint and freedom. The particular point is how the *overall* Complex adapts materials and design, overcomes the severity of the site, and attains new freedoms and possibilities without sacrificing the simplicity of the underlying structure, its adaptability, or the efficiency needed for economic viability. In this section, the sketches approach the Complex as a totality, as a physical architectural entity apart from its internal sub-functions.

Throughout, the project thrives on the tension between restraint and freedom. The severe requirements of expressway geometry, of its frenetic activity, fumes and vibrations, repeatedly resisted conventional approaches to material and design, and in the process gave me the opportunity (because it imposed the necessity) to strain some limits within architecture, to sift through the contributions of others and to concentrate within this project some proven innovations. It has been my consistent hope that, because the unusually formidable restraints inherent in this site are nothing more than extreme concentrations of quite common urban architectural problems, solutions generated here can have more general applications.

Materials and Restraints

Scanned from bottom to top, there is a gradation of restraints within the complex, to which there is a corresponding gradation of materials and structure. Between the ground and the expressway, the intrusion of vibration forces repeated structural concessions: Heavy masonry walls predominate the buildings; a sense of enclosure, safety and heaviness emerges alongside the innately cavernlike quality of the New Hanover Street underpass. Within this imposed condition, the design alternately mitigates and celebrates these qualities.

The mitigation occurs through the persistent attention to admitting light and wielding it to maximum effect. Such techniques as the



figure 84 Study of Blackstone Street Elevation

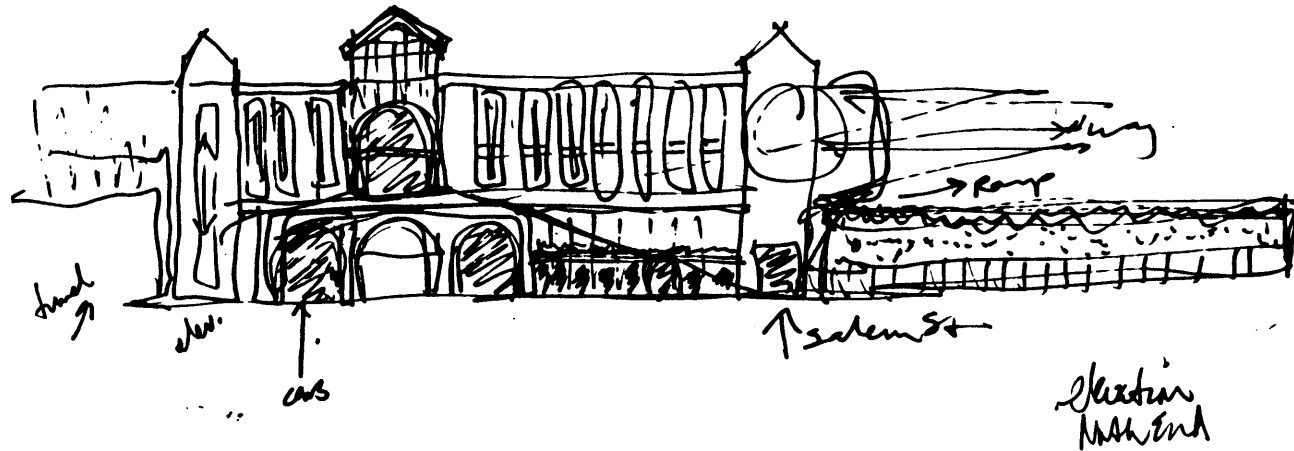


figure 85 Study of Cross Street Elevation

“light scoops” (see figure #89) reduce the accompanying vibration to a minimum. Springs and the insulation of main columns transmit and dampen the vibrations of the highway.

The celebration takes place in the choice of functions for this stratum which are compatible with its enclosed nature, in the preservation of gradations of light in the passageway, and in the high visibility of the

highway structure, a reminder of the unusual nature of the experience and the structure. A mood is maintained through such patterns as the arched openings within the masonry walls, which evoke images of elegant masonry as diverse as Indian adobe and Persian bazaar.

All in all, however, below the expressway restraint is dominant over freedom. While adapting to the highway and making usable

spaces, a foundation has been created upon which something can soar above the plane of the expressway.

Above the “newly created second plane,” freedom has triumphed and restraint has fallen away. And that freedom is reflected in the corresponding changes in materials and structure.

Above the second plane, it is possible to base construction upon a steel skeleton with

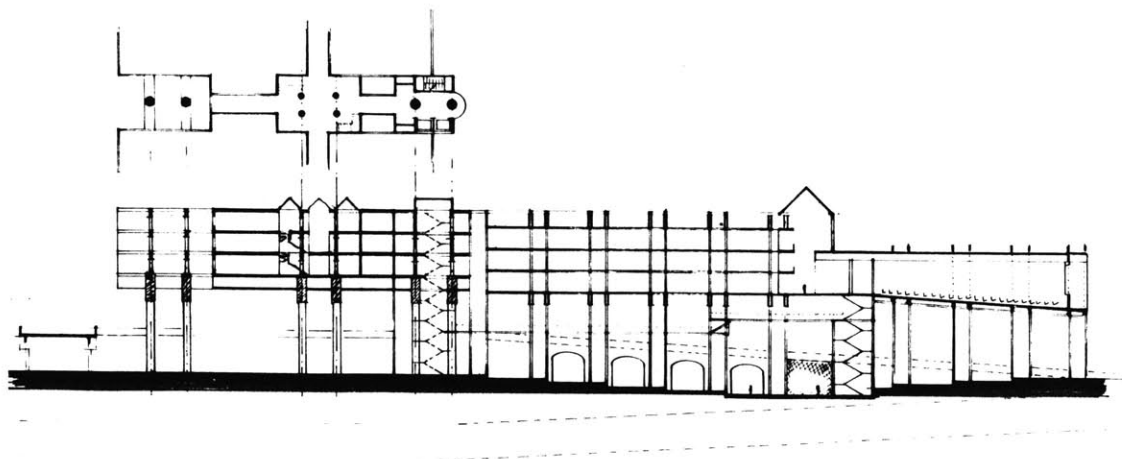


figure 86 Cross section of offices, hotel and theater

enclosure cladding. The structure is lighter and airier. It ripples with pitched roofs, chimneys and overlooks. The only restraint here (beyond the omnipresent ones imposed by economics) is the responsibility to maintain adaptability—a responsibility fulfilled through the diagonal bracing of the steel “cage” system.

A certain uniformity of concept bridges the dichotomy of materials between top and

bottom. Both above and below the highway, the skin of the Complex is often recessed or interrupted to reveal the structural framework—in some places it is the structure of the expressway, in others the diagonal bracings of the steel skeleton. There is a stark contrast between the vistas of the elevated pathway and the almost subterranean enclosure of the New Hanover Street it echoes—yet their unity is that they both transverse

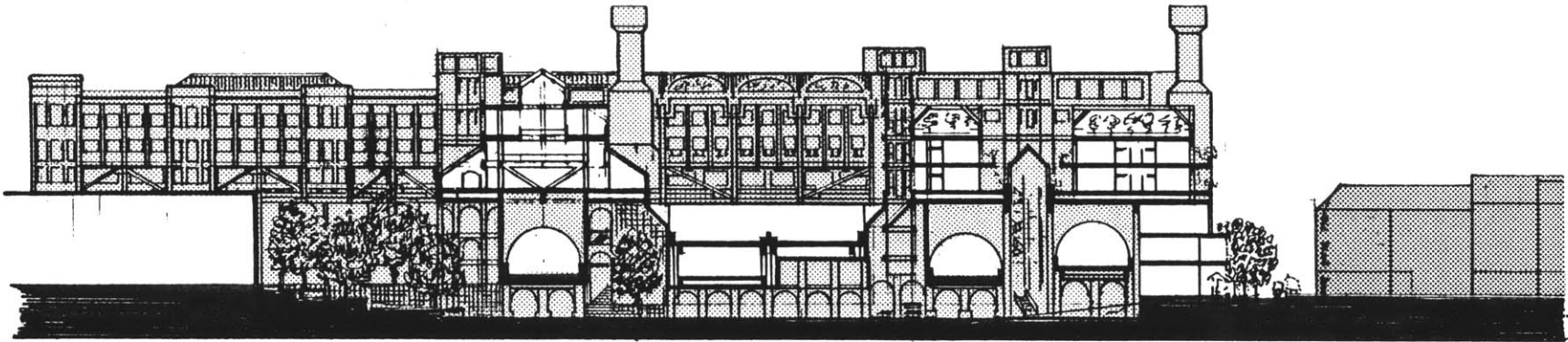
the expressway and they both allow the viewer to experience that.

Palette

Aesthetically there is a tension within the Complex, simply because of the transitional nature of this subcommunity. The dimensions and the textures of the two communities it separates and links are sharply different. South, buildings exhibit the necessary mass

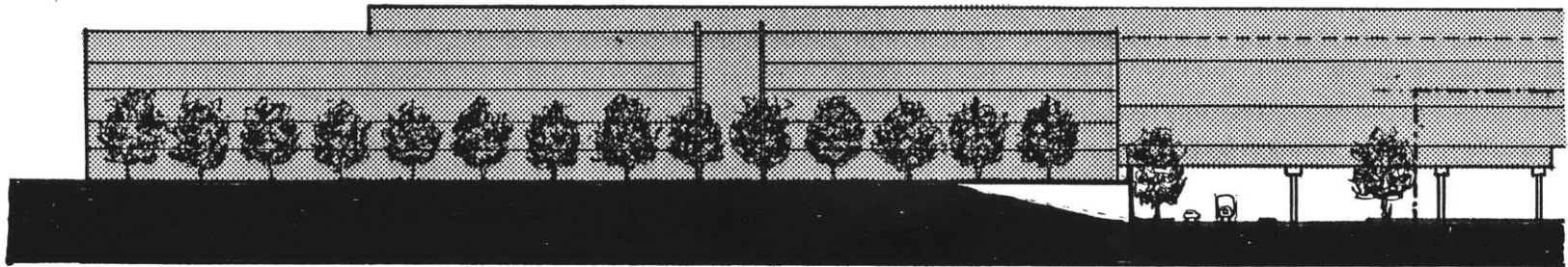
NORTH END

HANOVER STREET COMPLEX



GOVERNMENT CENTER

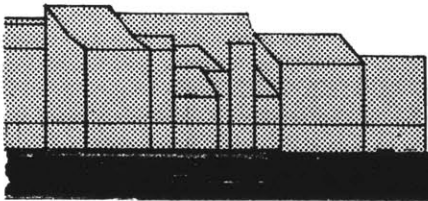
GOVERNMENT CENTER GARAGE



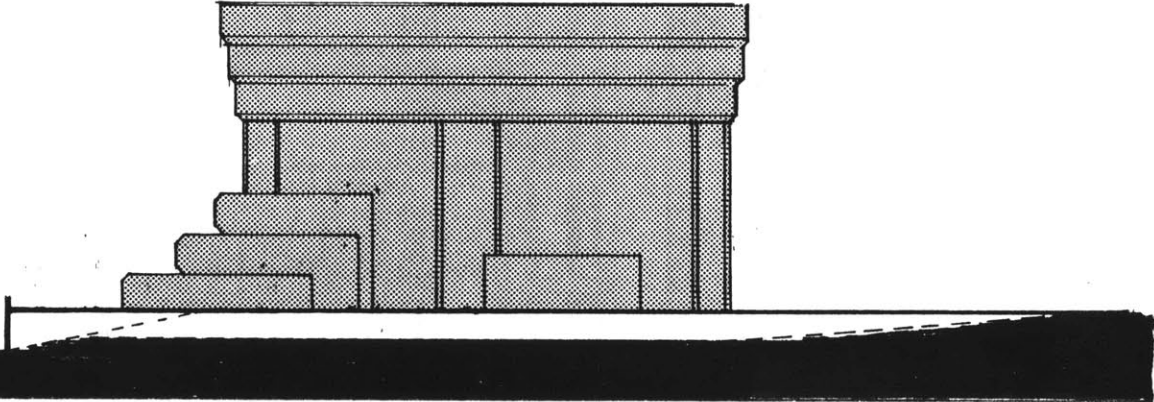
figures 87, 88

These two cross sections represent the views seen looking alternately east, then west, from an axis roughly defined by New Hanover Street.

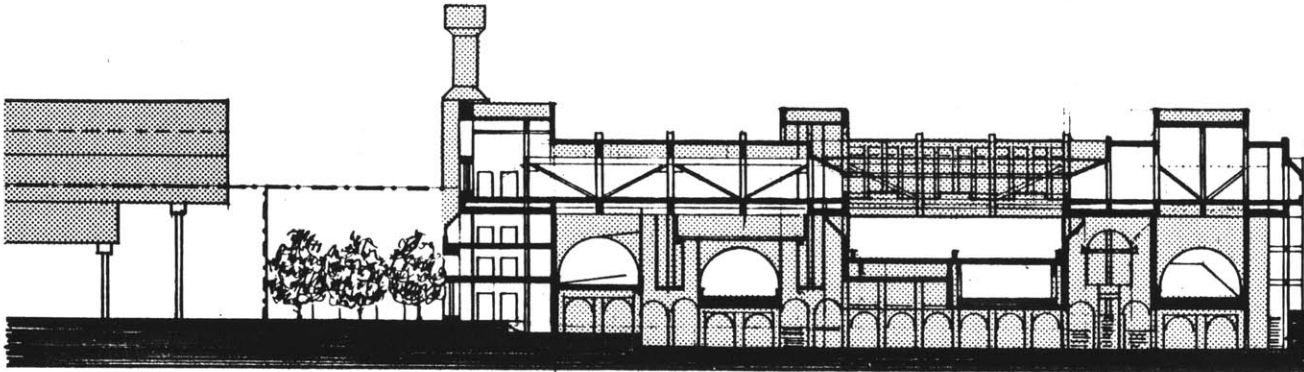
BLACKSTONE BLOCK



GOVERNMENT CENTER



HANOVER STREET COMPLEX



NORTH END



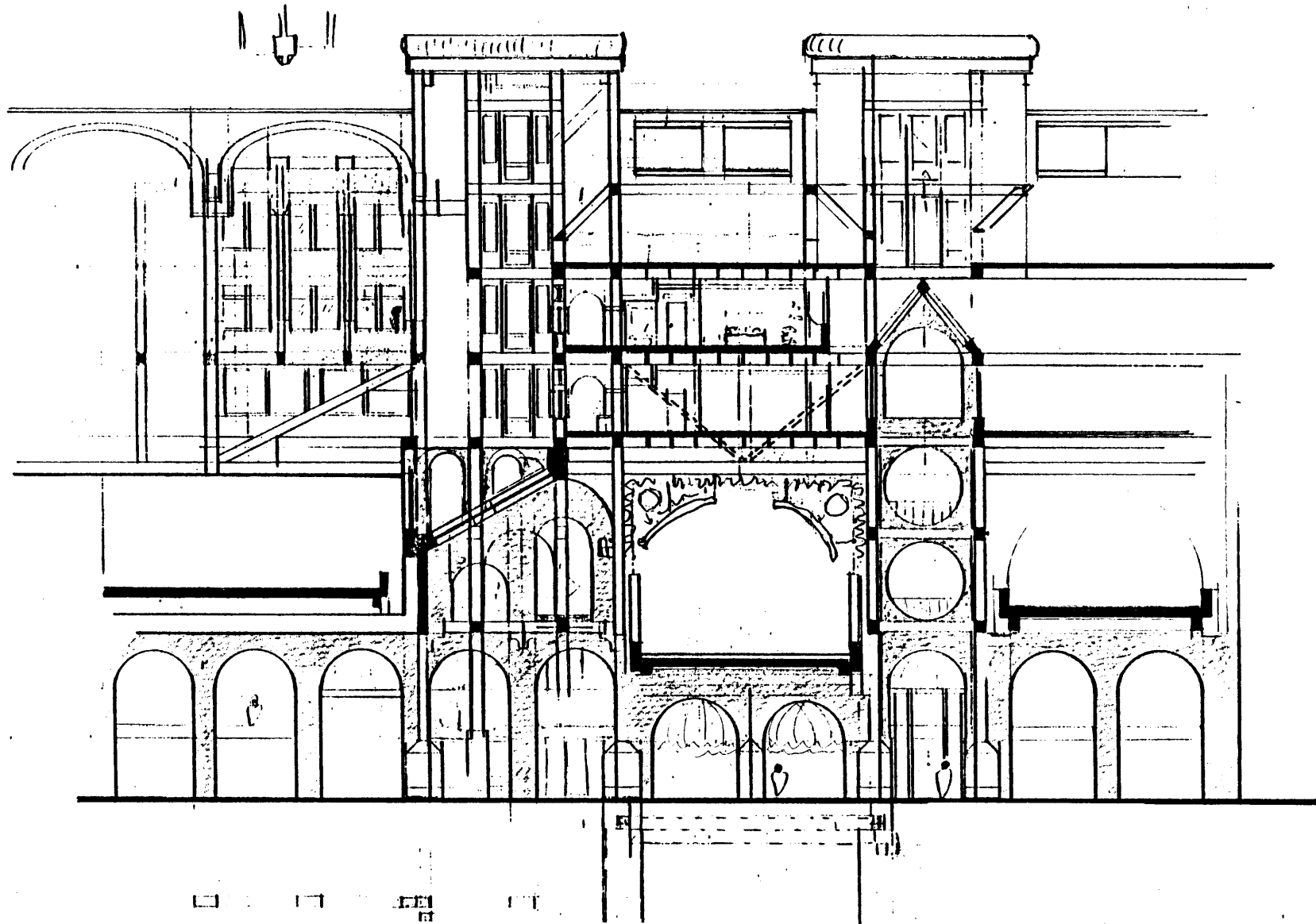


figure 89 This cross section illustrates the gradation of materials and structure as one moves vertically. On the right is the hotel; at bottom left, the department store; at top left, the office building.



figure 90

of office complexes which reach an extreme expression in the box-like utility of the Government Center Garage. North, there are the human-scale row houses of nineteenth century brownstone. They are low and separated into vertical strips, each possessing its own entrance and coloring.

The Hanover Street complex is designed to be a bridge between the two. Its overall size is quite consistent with the southern scale, while its diversity of functions allows a visual intricacy that evokes and anticipates the northern residences. In the accompanying sketches it is possible to perceive how this effect is achieved:

—Structurally, the Complex is a whole, and yet it is broken up with vertical divisions into distinct sub-units which create their own cohesion, so that it is not “a skyscraper lying on its side.”

—There is a marriage of style. On the one hand, the skin avoids large, impersonal planes of office glass and evokes the brownstone patterns with their bay windows and cornice variations. On the other hand, the habit of revealing underlying structures and skeletal diagonals creates a lacy quality which echoes those adjacent office buildings, including the garage, which were built revealing their beams and proclaiming their structural logic.

—There is a consistent effort to give a variety of movement, a sense of development, either when seen from top to bottom or scanned from side to side.

The intent has been more than simply to provide a transition between structures north and south: In its own right, the Complex aspires to command genuine interest, to be a truly *public* building that invites curiosity

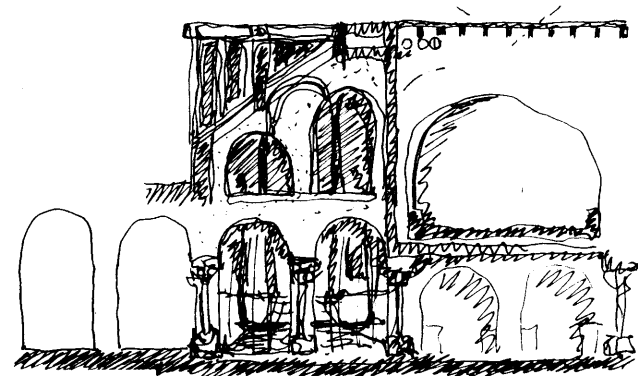


figure 91 Study of department store entrance

and spurs exploration. An oversize archway announces New Hanover Street. Light scoops and a distinctive theater intrigue highway commuters. The Complex provides views of the surrounding areas from both exterior vantages and from its offices and hotel rooms. For this reason, for example, each landing serving elevators or stairs has a window overlooking life; this helps to establish where one is and, within an obviously complex structure, provides the opportunity and time to easily decide where to go next.

In short, there is a consistent intent to provide variety without chaos, unity without monotony, and distinctiveness without discord.

Conclusion

An historical examination of cities and their architecture reaffirms that change—often dynamic and sometimes unanticipated change—is a given. The question is not whether systems will transform or whether old problems will give way to new ones, but how that will happen and how gracefully our choices will dovetail with future necessities.

The stretch linking the North End to Boston proper has gone through innumerable states since Boston became a settlement four centuries ago. First it was a tenuous neck connecting a peninsula to a larger peninsula. By 1650, it had been severed by Mill Creek, a man-made channel dug through the marshes which ran the same path that the Fitzgerald Expressway does today. Hanover Street then needed drawbridges to serve its function. It was only a century ago that this waterway was filled in and the North End ceased to be an island.

The explosion of highway systems, which is after all only two generations old, created the specific challenges tackled here. And the knowledge that these problems are young and that the city is so immanently mutable encourages the conviction that major, innovative solutions are not just called for but

possible.

This perspective imbued the design process represented by this thesis. As was expressed at the beginning, it is an attempt to “contribute a micro-solution to a macro-problem of urban planning.”

The Hanover Street Complex is a site-specific design that has every intention of being economically feasible, socially attuned to its specific environment, and coherent architecturally. But, at the same time, the Complex concentrates on problems which are common to numerous sites within modern cities. To the extent that it succeeds as an architectural “thought-experiment,” it suggests prototypical systems for such no-man’s lands, and it encourages the practical initiatives and further research that cities so urgently demand. □



CREDITS

figure 1 Klaus Staek, "Und neues Leben bluht aus den Ruinen," 1979.

figures 2, 4 Photo: Aerial Photos of New England, Inc., *Architecture Boston*,
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All other site photographs by Daniel Tenney.

figure 12 Saul Steinberg, *The Passport*, Random House, New York: 1979.

figure 58 Deborah Nevins, ed., *Grand Central Terminal: City Within a
City*, Municipal Art, New York: 1982.

figure 59 Waller, R.A., *Building on Springs*, Pergamon Press,
London: 1969.

figure 92 Lieutenant Page's Map, prepared in 1775
of the Town of Boston.

FOOTNOTES

¹ Smithson, A. and P., *Urban Structuring*; Studio Vista, London: 1967; page 43

² Herman Hertzberger, Lecture at M.I.T., January 1980

³ *Urban Structuring*; page 43

⁴ Venturi, Robert, *Complexity and Contradiction in Architecture*; Museum of Modern Art: 1966; page 80

⁵ McBride, Stewart, *Boston in Color*; Hastings House, New York: 1977; page 80

⁶ Le Corbusier, *City of Tomorrow*; cited in *Urban Structuring*, page 41

⁷ Waller, R.A., *Building on Springs*; Pergamon Press, London: 1969; page 82

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